

Lawrence Berkeley National Laboratory

LBL Publications

Title

Journal of Glenn T. Seaborg - Vol 20

Permalink

<https://escholarship.org/uc/item/7ss0h7mv>

Author

Lawrence Berkeley National Laboratory

Publication Date

1989

PUB-625
Vol. 20 *v.2*
January 1989

RECEIVED
LAWRENCE
BERKELEY LABORATORY

JAN 3 1990

LIBRARY AND
DOCUMENTS SECTION

TWO-WEEK LOAN COPY

*This is a Library Circulating Copy
which may be borrowed for two weeks.*

JOURNAL OF
GLENN T. SEABORG

Chairman, U.S. Atomic Energy Commission, 1961 - 1971

September 1, 1969 - December 31, 1969

Lawrence Berkeley Laboratory
University of California

*PUB-625
v.20
v.2*

DISCLAIMER

This document was prepared as an account of work sponsored by the United States Government. While this document is believed to contain correct information, neither the United States Government nor any agency thereof, nor the Regents of the University of California, nor any of their employees, makes any warranty, express or implied, or assumes any legal responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights. Reference herein to any specific commercial product, process, or service by its trade name, trademark, manufacturer, or otherwise, does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States Government or any agency thereof, or the Regents of the University of California. The views and opinions of authors expressed herein do not necessarily state or reflect those of the United States Government or any agency thereof or the Regents of the University of California.

PUB-625

JOURNAL
OF
GLENN T. SEABORG

Chairman of the U.S. Atomic Energy Commission
1961 - 1971

VOLUME 20

This work was supported by the U.S. Department of Energy
under Contract DE-AC03-76SF00098

PREFACE

During the ten years (1961- 1971) that I served as chairman of the U.S. Atomic Energy Commission I kept, on a daily basis, a rather complete journal. During the early years, off and on until 1969, I recorded my day's activities each evening at home in my study, in an unclassified, handwritten form in my large ledger type notebooks. This was augmented during each working day in my office by the dictation of memos to cover the content of telephone conversations, appointments, attendance at meetings, congressional hearings, etc. During my many trips within the United States and my visits to foreign countries (some 60 in all) I recorded my activities in little pocket notebooks which were transcribed when I returned home to my office. On some of these occasions, as well as for some appointments or meetings at home, my activities were covered by one of my able assistants or secretaries.

Finally, in 1969 I gave up altogether the laborious task of recording each day's activity by handwriting a summary at home during the evening. Rather, I covered each day's entire activity by producing memoranda during the day with the help of my secretaries and assistants. Thus, the journal began to be assembled each day on a current basis. In addition, the accumulated earlier material began to be assembled into daily journal form, a task that was soon completed. In both cases, the current and past material was augmented by daily attachments in numerous categories--selected incoming and outgoing correspondence and other relevant documents (deemed to be unclassified, with classified material placed in a separate file), and unclassified Summaries of Commission Meetings, and Commission Regulatory Meetings, and Notes on Information Meetings and Regulatory Information Meetings, so ably produced by Commission Secretary Woodford McCool and Director of Regulation Harold Price and their staffs.

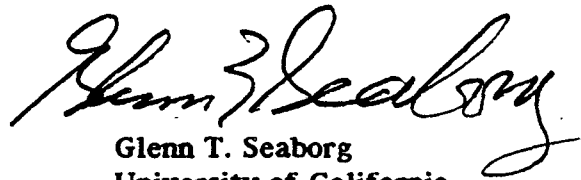
When I returned to the University of California, Berkeley, in November 1971, a couple of months after my tenure as Chairman of the Atomic Energy Commission, the two copies of my journal, which I presumed had been cleared, were sent there. Copy #1 eventually came to my Lawrence Berkeley Laboratory office and Copy #2 to my home, while the segregated, classified portions went to the local AEC-SAN office.

Due to the pressure of other activities no action was taken on my journal until early 1985, when I began working on editing my home copy (correcting spelling and typographical errors, adding first names or initials, etc.), preparatory to publication in DOE report form. About a year earlier, I had sent Copy #1, at their request, to the DOE History Division in Washington, D.C., for their use in the preparation of Volume IV of the official history of the Atomic Energy Commission. This led to questions as to whether my journal met present DOE declassification standards. As a result, a declassification officer was sent to my home in May 1985 to check my home copy (Copy #2). He made 162 deletions of a technical nature, which, in my opinion, reflected increased security standards but did not adversely affect the value of the journal. A second check, this time with my home copy sent to the Lawrence Livermore National Laboratory by a team of reviewers in October and November 1986, led to about 1,000 security actions (including the 162 deletions incurred in the earlier review). These actions included, in addition to deletions, the removal of 500 sections of or attachments to the journal for review by "other agencies" of our government or, in a few cases, of the British government. The majority of these documents have been returned to me either declassified or with some deletions. However, a number are still outstanding. I have decided to go ahead with the publication of my journal in the DOE report form with the intent of adding these now missing portions in an additional volume when they become available. Also, I have decided to proceed with such publication prior to the production of a name index; when this herculean task is completed, the name index will appear as an additional volume. It remains to be seen if a subject index will ever be added in such additional volumes. Although many news clippings are added as attachments, these were too numerous to include them all and, thus, there is a separate volume of these. (A little later Copy #1 underwent a similar security review, with similar results, and was returned to me.)

The journal consists of 25 volumes, averaging 700 pages each. This comprises about 15,000 items consisting of the approximately 4,000 daily journal entries and the average of about three attachments per day. The journal has three sections corresponding to each of the three presidents I served as chairman of the Atomic Energy Commission--the first six volumes covering the John F. Kennedy years (February 1, 1961-- November 22, 1963), the next 11 volumes covering the Lyndon B. Johnson years (November 22, 1963-- January 20, 1969) and the final eight volumes, the Richard M. Nixon years and a few months of post-AEC chairman activities in Washington (January 20, 1969-- November 6, 1971.

I am indebted to my many assistants and to the secretarial staff that served so ably during my AEC chairmanship (see Page 1 of Introduction) and to the Commission's administrative staff (Appendix B to Introduction) and feel grateful for the team help of my fellow AEC Commissioners (Appendix A to Introduction).

I also want to acknowledge the invaluable help of my staff at Lawrence Berkeley Laboratory for putting this journal in publishable form--June Jackson, Sherrill Whyte, Grace Nubla, and Margie Hollander, and temporary assistants Susie Campbell and Mildred Varner.



Glenn T. Seaborg
University of California
Berkeley, CA
January 1989

INTRODUCTION

A complete introduction to the 25 volumes of my journal of 1961 to 1971, covering my years of service as Chairman of the Atomic Energy Commission, can be found at the beginning of Volume 1 (for Volumes 1-6, spanning the Kennedy years), at the beginning of Volume 7 (for Volumes 7-17 of the Johnson years), and at the beginning of Volume 18 (for Volumes 18-25 of the Nixon years). That introduction is written from the perspective of 1971, in order to reflect the attitudes expressed in my journal, which was written on a daily basis during that period. I express the points of view of that time rather than those of today (1989), which might occasionally be somewhat different.

In that introduction I describe in summary form my activities as AEC Chairman from early 1961 until late 1971. This includes my first meetings with President Kennedy and the commissioners and staff of the AEC; my reappointment as Chairman by presidents Kennedy, Johnson and Nixon; the change in composition of commissioners and staff over the years; the role of the Joint Committee on Atomic Energy (JCAE); the division of duties among the commissioners; our methods of conducting business at meetings; the Commission's system of advisory committees; problems created by our system of multiple headquarters; unsuccessful attempts to replace the five-member Commission with a single administrator; the special role of Admiral Hyman S. Rickover; my service on many government committees; my authorship of several books during his time; and my special relationships with my three presidents (Kennedy, Johnson and Nixon).

I include an historical summary of the major accomplishments of the Atomic Energy Commission during the period of my chairmanship. This is done in a topical manner, i.e., by describing in summary form the accomplishments in each of a selected number of subject areas over the ten-year period. This is in preference to dividing the account into three parts, covering the Kennedy, Johnson, and Nixon administrations, which would inevitably result in a good deal of repetition in thus describing each of the subject areas three times.

I chose to touch briefly (not in any order of priority) on the following subjects:

- I. The Limited Test Ban Treaty (LTBT)
- II. The Nonproliferation Treaty (NPT)
- III. The Strategic Arms Limitation Treaty (SALT) and ABM Treaty
- IV. The Cuban Missile Crisis
- V. The program of international cooperation, including my visits to 60 countries
- VI. The program for support of research
- VII. The Los Alamos Meson Facility and the 200 Bev Accelerator
- VIII. The National Transplutonium Production Program
- IX. The civilian nuclear power reactor program
- X. The Raw Materials Program
- XI. The Gas Centrifuge Program
- XII. The Cutback in Production of Fissionable Materials
- XIII. The Regulatory Program
- XIV. The Radioisotopes Program
- XV. The nuclear power in space program
- XVI. The nuclear weapons testing program
- XVII. The Plowshare Program
- XVIII. The Controlled Thermonuclear Research Program (CTR)
- XIX. The Nuclear Education and Training Program
- XX. The Technical Information and Exhibits Program

Following the summary I go on to some of the auxiliary and personal activities that are covered in my journal. I mention my extensive schedule of speeches, awards; our home in the Reno Park area of northwest Washington and its proximity to three levels of schools to accommodate our six children; the departure of our older children to attend colleges; the marriages of our two oldest children; the visits of my mother; our family vacations; my turn to hiking as a means of recreation; my membership on Boards of Directors (including the presidency of Science Service and my election to the presidency of the American Association for the Advancement of Science [AAAS]); and my many press conferences and appearances on the covers of Time and Newsweek.

I conclude the introduction with an expression of gratification that, with all this, I managed to read the scientific journals in my specialty, enabling me to stay abreast of my research field of transuranium elements and nuclear chemistry so that I was ready, in 1971, to return to the University of California in a position to resume research in my field.

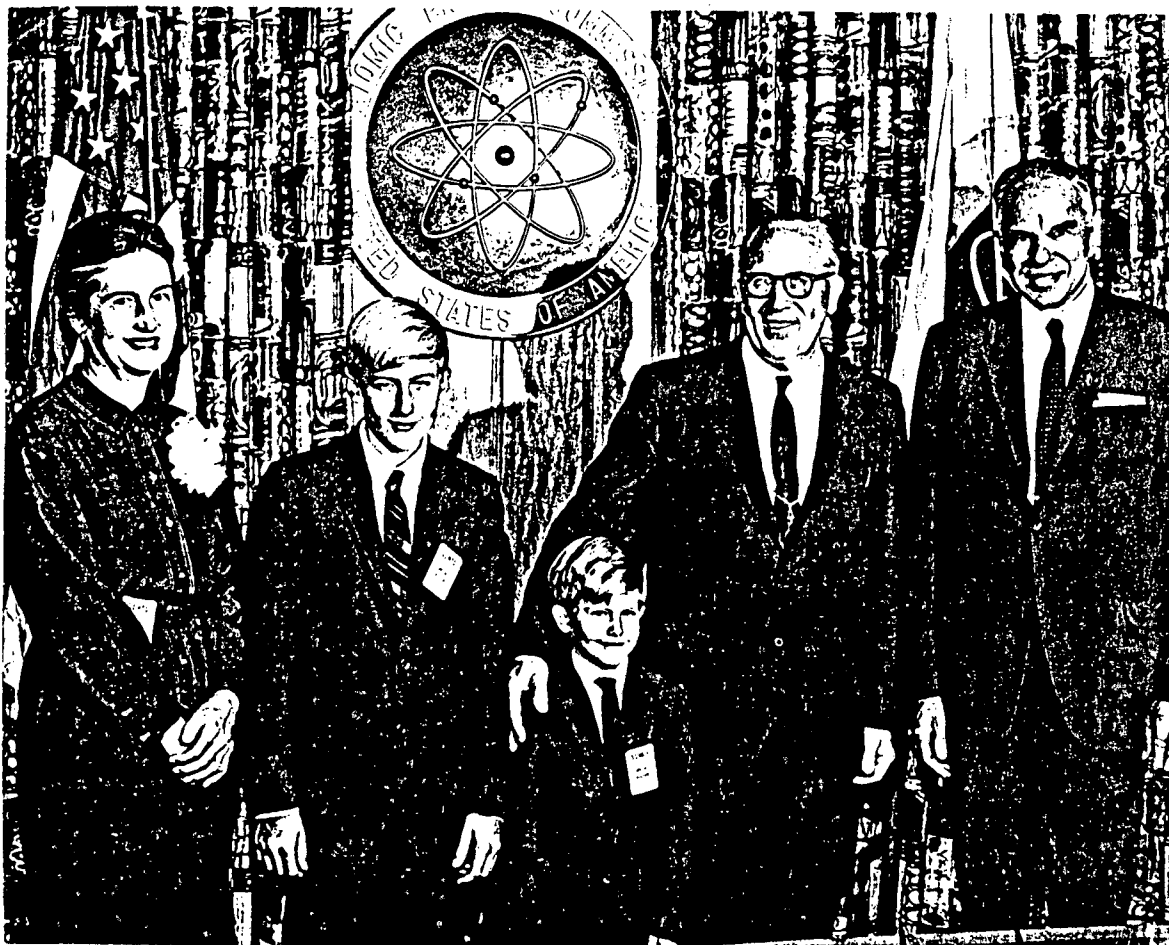
Monday, September 1, 1969 - LABOR DAY

I worked on the book Man and Atom a good part of the day.

Eric and I played 18 holes of golf at the Chevy Chase Club. Eric shot 130; I, 99.

Tuesday, September 2, 1969 - Germantown

At 9:30 a.m. Dr. Clarence E. Larson was sworn in as a Commissioner of the Atomic Energy Commission in the Commission Meeting Room. His wife Jane and two sons, Ernest Lawrence and Lance Stafford were present for the ceremony. I administered the oath of office to Dr. Larson and spoke briefly about his career and how it has fitted him for his present responsibility. I described his early connections with the University of California, College of the Pacific, the Radiation Laboratory, the Y-12 Plant, the Oak Ridge National Laboratory, Union Carbide Corporation in New York and Union Carbide at Oak Ridge. I mentioned my first contact with him during a trip to Oak Ridge in 1944. Dr. Larson responded with appreciation for our confidence in him and with some remarks concerning the future of nuclear power.



Swearing-in Ceremony for Commissioner Clarence E. Larson, Germantown, Maryland; September 2, 1969.

L to R: Mrs. Larson, Ernest Lawrence Larson, Lance Stafford Larson, Commissioner Clarence E. Larson, Seaborg.

At 10:20 a.m. I presided over Commission Meeting 2386 (action summary attached). This was the first Commission Meeting to be attended by Commissioner Larson and the first one for some time at which we had a full complement of commissioners. We discussed the budget for FY 1971 which faces us with difficult choices in order to stay within the BOB ceiling.

We learned today that the Circuit Court of Appeals upheld the Federal District Court in Colorado in ruling against the claims of the American Civil Liberties Union, the Colorado Open Space Coordinating Council, Inc., etc. which have attempted to stop the RULISON shot. We also learned that the County Attorney is trying to get support to issue a restraining order to postpone RULISON. Governor Love has come out with a pronouncement that the RULISON shot is safe but saying that he would want to look into some of the production aspects of it in the future. There is also the possibility of a sit-in near the site to be organized by University of Colorado students and other groups.

I had lunch in the cafeteria with Bill Corliss and Justin Bloom in order to discuss the book Man and Atom. We continued this discussion after lunch.

I had a call from Fred Seitz (President, Rockefeller University) saying he is trying to get some assessment about the prospects for a small users group in high energy physics that would be supported at least partially by the AEC or NSF. I said I thought that it might be possible in two or three years but that the FY 1971 budget is all tied up and the 1972 budget will probably be a little tight. I said I would gamble to the extent that things might loosen up a bit in FY 1973 or 1974.

At 2:15 p.m. I met with Everett Clark of Newsweek; Jim Cannon of Public Information was also present. Clark said that Newsweek is running a series of stories that will feature their changed position on AEC, that is, the tendency to make AEC a target of criticism in connection with the environmental aspects of nuclear power, the seismic effects of nuclear tests, etc. He said the first story would center around the RULISON event and the controversy attendant. I explained the great concern the AEC has for safety in all of its operations and pointed out the obvious fact that we can't continue these programs if something is ever proved unsafe. I said I think that some of the attitudes may change when the safety of various efforts becomes apparent. I also gave him a brief review of the increasing involvement of the AEC in the peaceful applications of nuclear energy such as breeder reactors, nuplexes, manifold applications of Plowshare, nuclear power in space, nuclear power for the artificial heart, manifold applications in medicine, agriculture, industry, etc. In the course of the interview Clark told me that he and representatives of Newsweek had heard that, as a result of the success of their attacks on DOD, a number of congressmen are getting ready to turn their attention to AEC and NASA.

At 2:40 p.m. I presided over Commission Meeting 2387 (action summary attached). We continued our discussion of the FY 1971 budget.

At 4:15 p.m. I presided over Information Meeting 940 (notes attached). This was the first Information Meeting to be attended by Commissioner Larson and the first for some time at which a full complement of commissioners was present. We learned that Dr. W. J. Kaufman has indicated his willingness to accept an appointment to the ACRS. We discussed the report of the AEC-DOD Safeguards Committee and its implementation. This is the committee that considers the safeguards aspects of the transport of nuclear weapons.

Chairman

UNCL. BY DOE
NOV 86

UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

September 3, 1969

Approved _____

REH

Date _____

R. E. Hollingsworth, General Manager

ACTION SUMMARY OF MEETING 2386, TUESDAY, SEPTEMBER 2, 1969, 10:20 A.M.,
ROOM A-410, GERMANTOWN, MARY:

SECY:LGH

Commission Business

1. Commissioner Larson's First Commission Meeting

Executive Session

- 2. AEC 1311/10 - FY 1971 Budget - see also
- AEC 1311/11 - Statistical Tables for FY 1971 Budget Estimates
- AEC 1311/12 - FY 1971 Major Program Issues
- AEC 1311/13 - Supplement to AEC 1311/10 - FY 1971 Budget
- AEC 1311/ - FY 1971 Budget Estimates - Laboratories
- AEC 580/302 - 1969 Materials Planning Estimate
- AEC 580/303 - AEC Contingency Reserve

Discussed.

The Commission requested the following be noted for further consideration:

- a. Effluent Control Separation Area, Richland;
- b. Plutonium Engineering Building, LRL-L, California; and
- c. High Temperature Gas Reactor, and Thorium Utilization Programs.

(OC)

The Commission also noted the Maritime Program will not be included in the budget as a line item. (OC)

Commissioner Johnson requested:

- a. A more detailed breakdown of reactor product use;
- b. Special Nuclear Materials costs related to line items on space isotope fuels; and
- c. A detailed breakout for General Reactor Technology.

(AGMPP/AGMR/OC)

Commissioner Ramey requested:

- a. A report on AEC's activities in various disciplines relating to the study of the impact of atomic energy on the environment; and
- b. The budget transmittal memorandum to the BOB emphasize the desirability of a strong ROVER program.

(OC)

3. Project Rulison

The Deputy General Manager reported on the status of efforts to delay Project Rulison.

Original signed

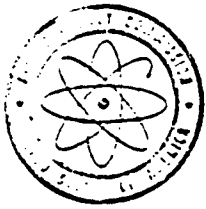
W. B. McCool

W. B. McCool

Secretary

cc:

Commissioners



UNITED STATES
ATOMIC ENERGY COMMISSION

WASHINGTON, D.C. 20545

ENCLOSURE
NOV 20

September 3, 1969

Approved _____

REH

Date _____

R. E. Hollingsworth, General Manager

ACTION SUMMARY OF MEETING 2387, TUESDAY, SEPTEMBER 2, 1969, 2:40 P.M.,
ROOM A-410, GERMANTOWN, MARYLAND

SECY:JFB

Commission Business

- AEC 1311/10 - FY 1971 Budget - see also
- AEC 1311/11 - Statistical Tables for FY 1971 Budget Estimates
- AEC 1311/12 - FY 1971 Major Program Issues
- AEC 1311/13 - Supplement to AEC 1311/10 - FY 1971 Budget
- AEC 1311/ - FY 1971 Budget Estimates - Laboratories
- AEC 580/302 - 1969 Materials Planning Estimate
- AEC 580/303 - AEC Contingency Reserve

Discussed:

The Commission requested the following be noted for further consideration:

- a. Life Sciences Research Laboratory, BNL; and
- b. Ecology Laboratory, ORNL. (OC)

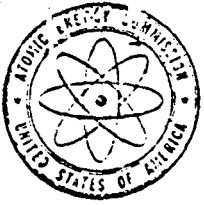
The Commission also requested statistical information covering the last several years regarding:

- a. personnel allocations for the operational and regulatory divisions of the AEC; and
- b. expenditures by the AEC on Space Electric Power Programs. (OC)

Original signed
W. B. McCool

W. B. McCool
Secretary

cc:
Chairman Seaborg
Commissioner Ramey
Commissioner Johnson
Commissioner Thompson
Commissioner Larson



UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

UNCL. BY DOE
NOV 86

COPY NO. 3
September 2, 1969

INFORMATION MEETING 940

4:15 p.m. Tuesday, September 2, 1969, Room A-410, Germantown Headquarters

1. Commissioner Larson's First Information Meeting
2. Mr. Bauser's August 27 Letter to Mr. Hollingsworth re Providing Joint Committee on Atomic Energy Latest Information for Future Lawrence Awards by the Commission

I will draft a proposed reply. (SECY)

3. Appointment of Dr. W. J. Kaufman to the ACRS (See Mr. Fraley's August 29 Memorandum)

Noted. (SECY)

4. Mr. Price's July 18 Memorandum re Siting of Reactor Pressure Vessels

Noted. For discussion at noon tomorrow. (SECY)

5. AEC 1230/20 - Final Report of the AEC/DOD Safeguards Committee

Approved. (SMM)

6. AEC 811/267 - Department of the Interior Responses to Questions on the Hosmer Legislation

Approved. Commissioners Thompson and Ramey will arrange a meeting with Department of Interior. (Ryan/Rosen/Fremling/SECY)

7. AEC Contracts for Fire Survey of Key Facilities

Approved. (PI)

8. Mr. Kratzer's August 28, 1969, Memorandum re Visit of Dr. Ludwig Weiss, Austrian Federal Minister of Transport and Nationalized Industries

Noted. (DIA)

9. Agenda for Commission Meeting with ACRS, 11:00 a.m., Thursday, September 4, 1969

Approved. (SECY)

10. Chairman's Interview with News Week Reporter

11. White House Task Force Report on Uranium Enriching Facilities

Mr. Bloch said that the report has been signed and is on its way to the President. The Commission letter to the President may now be released.
(Rubin)

12. Item for Commissioners' Executive Session Discussion

To be scheduled. (SECY)

W. B. McCool
Secretary

4:50 p.m.

COMMISSIONERS:

Chairman Seaborg
Commissioner Ramey
Commissioner Johnson
Commissioner Thompson
Commissioner Larson

STAFF:

Mr. Hollingsworth
Mr. Bloch
Mr. Parks
Mr. Rubin
Mr. Ryan
Mr. Hennessey
Mr. Kull
Mr. Crowson *
Mr. Stone *
Mr. Harris *
Mr. Erelwine *
Mr. Gerber *
Mr. English *
Mr. Fouchard*

DISTRIBUTION:

Commissioners
General Manager
General Counsel
Secretary

Attendance by topic(s)



Swearing-in Ceremony for Commissioner Clarence E. Larson at Germantown, Maryland, September 2, 1969
L to R: Commissioners Theos J. Thompson, Wilfrid E. Johnson, Seaborg, Larson and James T. Ramey

I sent a letter to President Nixon (copy without enclosure attached) in connection with the McCracken report on the future of the uranium enrichment plants, which was forwarded to the President today.

I received a letter (copy attached) from I. Morokhov (Vice Chairman, State Committee on Atomic Energy, U.S.S.R.) thanking me for sending him copies of the AEC annual reports.

Attached is a copy of our memorandum submitting material for possible use in the daily report to the President.

Wednesday, September 3, 1969 - Germantown - Newport Beach, California -
Washington

At 9:45 a.m. I presided over Commission Meeting 2388 (action summary attached). We continued the discussion on the FY 1971 budget.

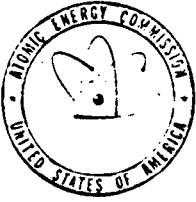
I received a call from Speaker John McCormack who asked me to see a friend of his, Thomas O'Connor of the O'Connor Construction Company of Boston, who is interested in getting into the market for the construction of nuclear power reactors. I told McCormack I would be glad to see him, and we made an appointment for Friday, September 5.

We received a critical letter from Washington Senator Warren Magnuson (copy attached) requesting a postponement of the underground nuclear weapons test scheduled for Amchitka Island.

At 12 noon I flew from Andrews Air Force Base on a VC-317 (Tail No. 8972) to join the Vice President for a meeting of the Space Task Group at the Newporter Inn in Newport Beach, California. Others on the plane were Bob Seamans (Secretary of the Air Force), Mr. and Mrs. Robert Mayo, Dr. Russell Drew (OST), Neville Palley (DOD), Dr. George Mueller (NASA), Don Craybill (BOB), Milton Klein (AEC-NASA), Alexis Johnson and Robert Packard (State Department), and Colonel Bill Anders, Colonel Jim Brickel and W. S. Berg (Space Council) and Colonel Mike Cook. We arrived at the El Toro Marine Base at 2 p.m. and went by bus to the Newporter Inn.

Present at the meeting were: Vice President Agnew, Alexis Johnson (State), Robert Mayo (BOB), Dr. Thomas Paine (NASA), Dr. Robert Seamans (Air Force), Colonel William Anders (Space Council), W. S. Berg (Space Council), Colonel Jim Brickel (Space Council), Donald Crabill (BOB), Dr. Russell Drew (OST), Milton Klein (AEC-NASA), William S. Moore (Space Council), Dr. George Mueller (NASA), Robert Packard (State), Neville Palley (DOD), Jerome Wolff (Assistant to the Vice President), D. D. Wyatt (NASA) and I.

Vice President Agnew, who seemed rather tired, presided over the meeting. He called on Drew to make the opening statement. Drew described the work that has been done by the Space Task Group and the Task Force and their recommendations. In brief, these consisted of the suggestion that the future space program be conducted in a balanced manner for both the manned and unmanned portions. Within the balanced program there should be: (1) acceptance of the long range goal of manned planetary exploration, with Mars as the first step, and (2) major emphasis on such items as applications for the benefit of man, national security, exploration of the solar system, cooperation with other nations, etc.



UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

UNCL. BY DOE
NOV 86

SEP 2 1969

The President
The White House

Dear Mr. President:

Dr. Paul McCracken has furnished to you a report of the task force established by the Executive Office to consider the question of the future disposition of the Atomic Energy Commission's uranium enriching facilities. The task force report analyzed the issues and the advantages and disadvantages of the various alternative arrangements for the future ownership and management of these facilities. Commissioner Wilfrid E. Johnson was a member of that task force.

The Atomic Energy Commission has been studying the question of future ownership and management of uranium enrichment facilities over the past few years and had developed a summary report and background information on this subject which was supplied to interested Government agencies and offices, as well as to representatives of industry. The Atomic Energy Commission has also cooperated with the Atomic Industrial Forum and the General Accounting Office by supplying information for the studies which those groups have carried out on this subject.

Our own studies and our participation with other groups in their studies have led the Commission to a carefully considered position on the future ownership and management of the uranium enrichment enterprise. That position, in the enclosed Statement, was provided to the task force members and expresses the Atomic Energy Commission's recommended policy.

In brief, the Policy states that, as an objective, the uranium enriching activity should ultimately be the responsibility of private industry, but that transfer at the present time would be premature. Rather, and for such interim period as is appropriate, we recommend that the Atomic

The President

- 2 -

Energy Commission be empowered to conduct the uranium enriching program on a business-type basis, including the authority to obtain necessary financing by borrowing from the Treasury, issuing revenue bonds to the public, and reapplication of revenues to the enterprise. Such authority might provide for the establishment of a Government corporation to conduct the enriching program until such time as the transfer of the program to the private sector proves feasible and in the public interest.

Our participation on the task force has strengthened our unanimous conviction that this policy would be in the best interest of the Administration and the country, and we therefore desire to confirm it as an Atomic Energy Commission recommendation for the Administration's policy for continued ownership and management of the uranium enriching facilities.

Respectfully yours,

~~(Signed)~~ Glenn T. Seaborg

Chairman

Enclosure:
Policy Statement



UNCL. BY DOE
NOV 86

ГОСУДАРСТВЕННЫЙ КОМИТЕТ

по использованию
АТОМНОЙ ЭНЕРГИИ
СССР

10 июля 1969 г.
№ 10/2853
г. Москва

Г-ну Гленну Т. Сиборгу
Председателю Комиссии по
атомной энергии США
г. Вашингтон, Д.С. 20545
США

Уважаемый профессор Сиборг,

Благодарю Вас за два официальных отчета о деятельности Комиссии по атомной энергии США за 1968 год, которые Вы мне любезно направили.

Вы справедливо отметили, что особый интерес для меня представляют материалы, связанные с Договором о нераспространении ядерного оружия и вопросами гарантий.

Как Вам известно, мы придаем большое значение Договору и вопросам гарантий, направленных на дальнейшее развитие использования атомной энергии только в мирных целях.

С уважением

И. Морохов
Заместитель Председателя

USSR —
Moscow, 180
Staromonetnii per. 26
State Committee on Atomic
Energy (GKAE)

The State Committee of the USSR for the Utilization
of Atomic Energy

10 July 1969

No GO/2853

Moscow

Mr. Glenn T. Seaborg
Chairman of the U.S. Atomic Energy Commission
Washington, D.C. 20545
USA

Dear Professor Seaborg:

Thank you for the two official reports concerning the activities of the
U.S. Atomic Energy Commission for 1968, which you kindly sent to me.

You correctly noted that the material having to do with the Agreement on
the non-proliferation of nuclear weapons and with questions of guarantees
would be of particular interest to me.

As you know, we attach great importance to the Agreement and to the
questions of guarantees directed to the future development of the use of
atomic energy for peaceful purposes only.

Respectfully,

I. Morokhov
Vice Chairman

September 2, 1969

Mr. Albert Toner
Staff Assistant
The White House

Dear Mr. Toner:

The following item is submitted for your possible use
in the daily report to the President.

Clarence L. Larson received the Oath of
Office as a USAEC Commissioner from Chairman
Seaborg today, September 2, 1969. Mr. Larson
was appointed to the Commission on June 30,
1969, and was confirmed by the Senate on
August 8. His appointment is for a five-year
term expiring June 30, 1974.

Sincerely,

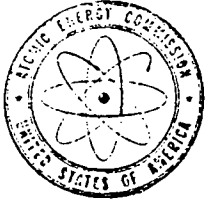
(Sgd.) Julius H. Rubin

Julius H. Rubin
Special Assistant
to the Chairman

cc. Thomas Witzend

Chairman Seaborg
J. Bloom
H. Gearin

JHR:nem



UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

UNCL. BY DOE
NOV 88

September 3, 1969

Approved REH

Date _____

R. E. Hollingsworth, General Manager

ACTION SUMMARY OF MEETING 2388, WEDNESDAY, SEPTEMBER 3, 1969, 9:50 A.M.,
ROOM A-410, GERMANTOWN, MARYLAND

SECY:SBR

Commission Business

1. AEC 1311/10 -FY 1971 Budget - see also
AEC 1311/11 -Statistical Tables for FY 1971 BudgetEstimates
AEC 1311/12 -FY 1971 Major Program Issues
AEC 1311/13 -Supplement to AEC 1311/10 - FY 1971 Budget
AEC 1311/ -FY 1971 Budget Estimates - Laboratories
AEC 580/302 -1969 Materials Planning Estimate
AEC 580/303 -AEC Contingency Reserve

Discussed.

The Commission requested that an increase of \$.750 million be added to the Commission's budget, under Priority C, for uranium resources research and development. (OC)

Commissioner Johnson requested information on alternate cases of reactor shutdowns at Savannah River and Richland. (AGMPP)

Commissioner Ramey requested staff look further into the possibility of accelerating prepayment of steam charges to the WPPS-BPA. (OC/AGMPP)

Commissioner Thompson requested staff study the possibility of a viable target portion for the radiobiology and therapy research facility at LASL. (BM)

2. Agenda Changes

Requested. (SECY)

Executive Session

3. Oral Report on "Burlington Free Press" Article

The Commission requested that the offices of Senator Aiken and Governor Davis be contacted. (AGM)

4. Jack Anderson Article, September 3, 1969

The Commission requested preparation of a list of appropriate questions and answers. (AGM/OSMM/PI)

R. E. Hollingsworth
Action Summary 2388

-2-

September 3, 1969

5. Scheduling of Project Rulison

The Commission noted Rulison is scheduled for September 4, 1969 at 5:00 p.m.

Original signed
W. B. McCool

W. B. McCool
Secretary

cc:
Chairman Seaborg
Commissioner Ramey
Commissioner Johnson
Commissioner Thompson
Commissioner Larson

WARREN G. MAGNUSON, WASH., CHAIRMAN

JOHN O. PASTORE, R.I.
VANCE HARTKE, IND.
PHILIP A. HART, MICH.
HOWARD W. CANNON, NEV.
RUSSELL D. LONG, LA.
FRANK E. MOSS, UTAH
ERNEST F. HOLLINGS, S.C.
DANIEL K. INOUE, HAWAII
JOSEPH D. TYUNGS, MD.
WILLIAM B. SPONG, JR., VA.

NORRIS COTTON, N.H.
HUGH SCOTT, PA.
WINSTON L. PROUTY, VT.
JAMES D. PEARSON, KANS.
ROBERT P. GRIFFIN, MICH.
CLIFFORD P. HANSEN, WYO.
HOWARD H. BAKER, JR., TENN.
CHARLES E. GOODELL, N.Y.

United States Senate

COMMITTEE ON COMMERCE

WASHINGTON, D.C. 20510

FREDERICK J. LORDAN, STAFF DIRECTOR

RECEIVED BY DOP
NOV 86

September 2, 1969

Mr. Glenn Seaborg, Chairman
Atomic Energy Commission
Washington, D. C. 20545

Dear Mr. Chairman:

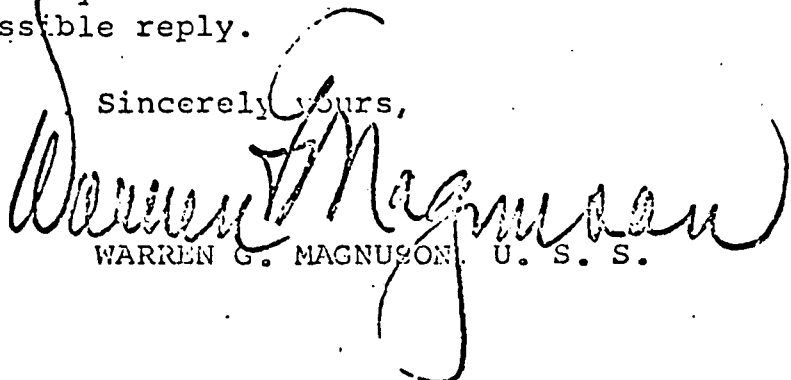
I am in receipt of your August 25 letter and the copy of the report, "The Use of Amchitka Island for Underground Testing."

Although your letter does not specifically answer the questions asked in my earlier letter to you, I appreciate the effort you have gone to in providing the Amchitka report. This does not, however, erase the doubts I spoke of earlier, particularly in view of the fact that this is the largest underground nuclear device ever to be detonated. Although the device in question is not an actual weapon of war, the fact remains--its characteristics for destruction are the same and you are operating in a geographic area with many unknowns.

In view of the mounting concern in this case, I am wondering why it would not be possible to postpone the initial test for a period of time while the information you have developed is more fully explained and scrutinized. Surely, a delay of a month or two would not interfere with your overall timetable; and it certainly would provide you with an ideal opportunity to build public confidence in your report and in the entire testing operation.

I would appreciate your consideration of this matter and your earliest possible reply.

Sincerely yours,


WARREN G. MAGNUSON, U. S. S.

WGM:tca

016

Drew then described the budgetary implications, describing Options A through D. Option A, the most ambitious program, goes through a peak annual expenditure of \$10 billion per year, while Option D would peak at \$5.7 billion per year. He said that major program decisions would have to be made in connection with the FY 1971 budget for the Space Transport System (STS) and the Space Station. Decisions would have to be made by the time of the FY 1972 through FY 1975 budgets for the STS, the lunar orbit station, the lunar surface base, the space base (50 to 100 men) and the manned Mars mission. Paine added the comment that a decision would have to be made on whether or not to continue the NERVA project in connection with the FY 1971 budget. Mayo demurred on this, but I strongly reinforced the need for a decision on NERVA at this time. Drew said that the issues involve the question of whether an even lower level option should be included. Such a lower level funding option would correspond to a hiatus in the manned space flight program or stopping the lunar program after Apollo, confining the efforts to earth orbit, or continuing a minimal lunar program with no earth orbit program. He also said another issue is the question of the agency and contractor base level of effort and the form of the Space Task Group Report to the President.

The Vice President then began the discussion by saying that the presidential staff seems to want to include a low level option which no one on the Space Task Group wants. Paine interjected his feeling that, if this is done (say, a program at the \$2.5 to \$3 billion level), it would require the submission of a detailed program to show the consequences of such action. He said that unless this is done he wouldn't sign his name to the report. He would want to spell out a month by month expenditure curve and this would take several more weeks. The Vice President wondered whether we should take the time to develop a lower funding level option, which might be called Option E, and asked whether anybody was in favor of this. Mayo responded by saying that the President would be unlikely to pick up an option at either extreme, that is, either Option A or Option D; this is simply a matter of gamesmanship. He said that perhaps Option D is incomplete, and perhaps it can be trimmed a bit. He believes that an annual NASA expenditure of \$4 billion can be carried out in such a manner that there will be no hiatus in the manned space flight program but still fall short of a program aimed to put a man on Mars in the twentieth century. He said that we are not giving the President enough choice when we submit a report that is intrinsically built around Option A with Options B and C as alternatives. He would rather build around Option C and say that we can perhaps do better than this. He said that our country's resource allocation problem for FY 1971 and FY 1972 is serious; however, he would be willing to associate himself with a revised, reduced Option D rather than a new Option E.

At this point Seamans introduced a chart (copy attached) showing all of the projected NASA programs on an incremental basis, plotting the funding level against the year up to 1990. (This chart purported to show that the budget could stay at the \$4.5 billion level until 1990 and included suggested dates for the initiation of large projects; for example, the decision of a manned planetary program (Mars peculiar) would be made in 1986 for a 1996 manned landing on Mars with the option to speed it up to an earlier date. Under this program a development of the nuclear rocket stage would be dropped until 1974 or later. Alex Johnson spoke in favor of Seamans' program.

Paine pointed out that Option E would entail the shutdown of huge installations like those in Houston, Huntsville and Cape Kennedy.

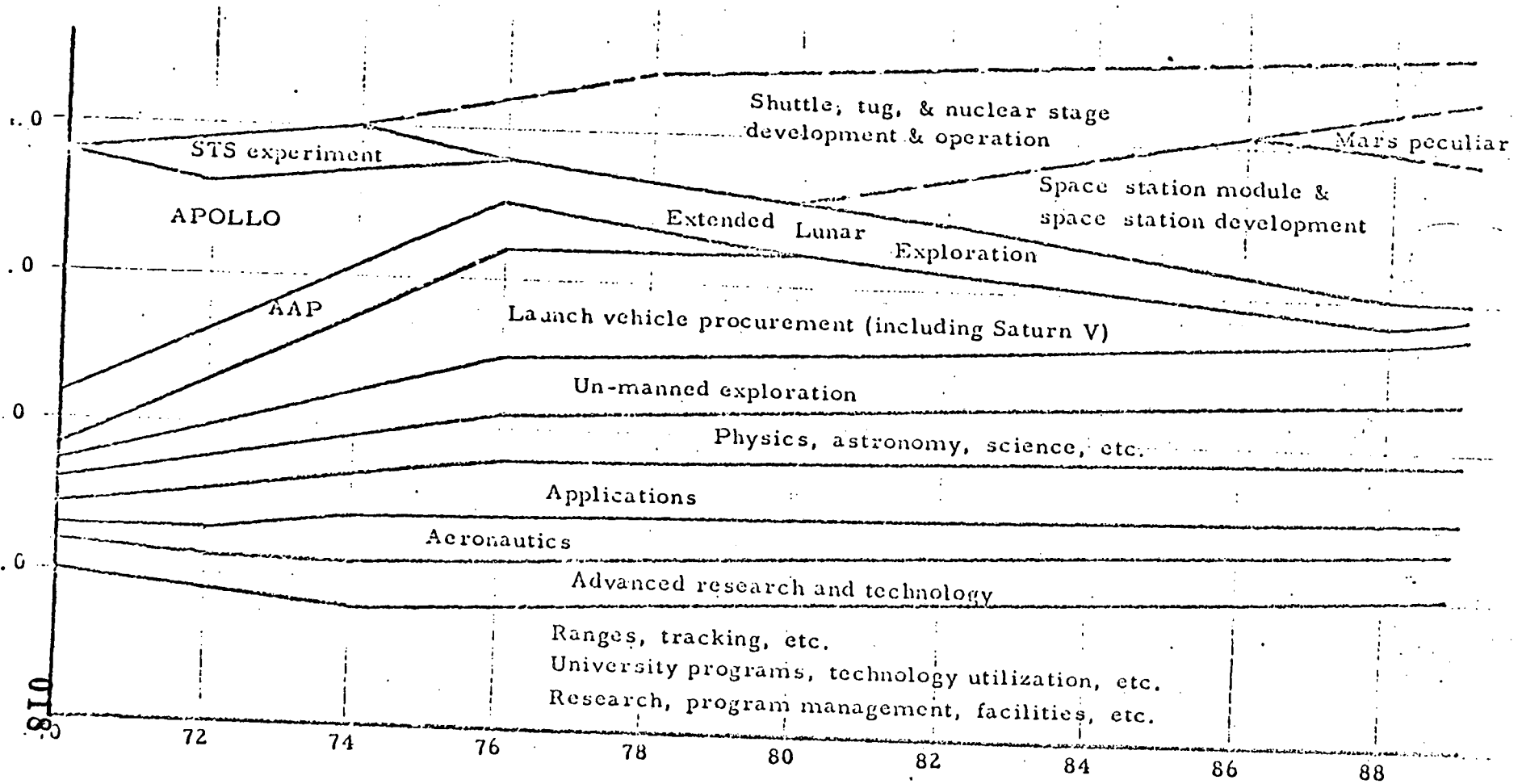
I suggested that the difference between Options A, B, C and D on the one hand and a new option E on the other hand, both of which include flexibility for

SUGGESTED NASA OPTION (C)

CLASSIFIED BY 107
NOV 82

Notes

1. Support reduced thru '74 then increased
2. Advanced R&T increased 50%
3. Aeronautics more than doubled
4. Applications tripled
5. Physics, Astronomy, etc. doubled
6. Un-manned exploration tripled
7. Saturn V production continued
8. AAP extended to '78
9. Lunar exploration extended indefinitely
10. Shuttle and tug IOC in '80, nuclear stage in '82
11. Space station module IOC in '86
12. \$ 1 billion space transportation system experiment
13. Mars by mid-nineties possible
14. Manned space flight program continues at \$ 2 billion
15. Space station follows AAP and STS development



decisions to go either up or down in the future, is a matter of outlook on the whole program, which can have a great effect on the large research centers and the scientists and engineers working in them.

Mayo pointed out that he wouldn't want the President to agree to a program and then have to retract or cut it back; this would be publicly embarrassing.

At this point the Vice President raised the question of how we should make a report to the President. He raised the question of whether we should present a number of options with only one recommendation or whether there should be several recommendations.

Paine indicated that he would recommend that we present all the options without any recommendations from the Space Task Group, and the President could come to the members of the Space Task Group and to other people individually in order to get their recommendations. Thus, he would have more flexibility. The Vice President and the others around the table, who expressed their views, seemed to agree with this plan.

Agnew said the problem that seems to have us in such a quandary is that the idea of an Option E, which the Space Task Group cannot recommend, is coming from the President himself. Perhaps, however, the inclusion of an Option E without a recommendation represents a solution to the dilemma. He then raised the possibility of including Seamans' suggested program instead of Option E. Mayo replied that he didn't think this would satisfy the President.

The Vice President expressed the view that it is better to use an additional \$.5 to \$1 billion annual expenditure to insure the success of great undertakings than to use it for welfare (people's) programs which can run to \$40 or \$50 billion without any tangible accomplishments. He said that the Space Task Group shouldn't lose sight of its primary function. He went on to say that he would prefer Seamans' proposal to a reduced level, that is, Option E. Mayo again said that this would not be satisfactory.

Mueller said that he wanted to make two points: (1) in order to run programs, it is necessary to provide enough resources to make each program go. Thus, at a \$2.5 billion annual level we should either cancel the manned flight program or cancel everything else. (2) The matter of deferring decisions has the actual effect of insuring that you don't have a program.

Paine then suggested that perhaps the best solution was to expand page 29 of the draft STG Report, "The Post-Apollo Space Program: Directions for the Future," which reads as follows:

"Specific program plans for funding levels below those judged minimum consistent with the Task Group recommendations have not been developed. It would be possible for example to consider a program in which manned space flight was terminated following completion of Apollo and Apollo Applications missions. This decision would lead to major reductions in expenditures for the civilian space program by the mid-1970's, but we believe such a decision would not be in the best interests of this Nation. Similarly, other major reductions in space activity or in the facilities and personnel resources of NASA would lead to reduced funding requirements. Such reduced funding would imply delay or deferral of one or more of the goals and objectives which the Space Task Group believes are vital to the Nation's future leadership in space."

He thought this would be better than to add a specific option that included a proposed funding level.

The Vice President went back to the matter of the format of the report to the President. He said he assumes there is accord on the presentation of a series of programs and indicated that perhaps there should be an oral report to the President; perhaps this could be in the presence of Cabinet members in the form of a briefing session from someone such as Drew. Seamans said that perhaps it could be agreed that everyone is in accord with continuing a manned program and that the report could record this as a basic part of the program.

Johnson indicated, however, that he thinks the unmanned program is important and that he would somewhat rather suspend the manned program than to drop the unmanned program. Paine said he doesn't think that the unmanned program can be defended before Congress without a manned space program.

As the meeting drew to a close, Vice President Agnew asked whether there were any other comments. Mayo raised the question of what the President may say when he buys one of the options. Agnew responded by saying that he doesn't think the President will have to buy an option. He said that he likes to think in terms of the President's buying an overall objective. He reiterated that he would like that objective to include a date as a goal for a manned landing on Mars. I indicated that I think a goal of a manned landing on Mars with no date is meaningless, because it is obvious that sometime in the history of mankind there will be a manned landing on Mars.

I made the observation that I think it is unrealistic to speak in terms of adding new options, like Seamans' suggestion, to the draft report at this late stage. I said that the Space Task Group has put in a great deal of time and evolved a very thoughtful report, and that the only viable course of action now is to use that report with some additions, like an Option E, that won't change its form extensively. The group seemed to agree with this suggestion, and the discussion went on to the content of a reduced Option E that might be added to the draft report. It was then decided that a reduced Option E, which would exclude the manned program, would be added to the report. I believe that those present realize that this isn't a really acceptable alternative but feel that a low level option should be included in order to show a kind of limit that no one will want to adopt. Thus, it will give the President a better possibility of choosing one of the higher level options.

Mayo said that, having agreed to accepting the report as it is with the addition of the now defined Option E, he would like to have the Option D cut down somewhat as well. There was discussion of this with strong opposition from Agnew and Paine with the result that Mayo finally agreed to leave Option D as it is.

The Vice President then suggested that we discuss the mode of presentation of the report to the President. I pointed out that Lee DuBridge will be leaving the country on September 18 and that I will be leaving the country on September 13, which might suggest that we move rather fast. Paine suggested that our presentation be made on a factual basis to the President without the members of the Cabinet present and with the hope that it would be received by him without comment so that he might study the matter further before making a decision. The Vice President and the others agreed to this and asked that individual comments be sent to Drew for inclusion in a revised draft. Following this there will be another meeting of the Space Task Group

preparatory to the presentation to the President. (It was later decided to have the meeting of the Space Task Group on Thursday morning, September 11.)

We left the Marine Base at 6 p.m. and arrived at Andrews Air Force Base at 1:45 a.m. (September 4).

Ho Chi Minh, Chairman of the Central Committee of the Workers Party and President of the Democratic Republic of North Vietnam, died today after a grave and sudden heart attack.

Thursday, September 4, 1969 - D.C.

From 11 a.m. to 12:30 p.m. the other Commissioners and I met with the Advisory Committee on Reactor Safeguards. The Committee members present were: Dr. Stephen Hanauer (Chairman), Dr. Joseph Hendrie (Vice Chairman), Harold Etherington, Hibbert M. Hill, Dr. Warren Kaufman, Harold G. Mangelsdorf, Dr. Harry Monson, Dr. Arlie O'Kelly, Dr. David Okrent, Lombard Squires, Dr. William Stratton and Dr. Chester Siess. Harold Price, W. B. McCool, Milt Shaw and Howard Brown were also present. The main topic of discussion was a proposed letter (copy attached) that ACRS wanted to write regarding criteria for building reactors closer to centers of population. The Commissioners objected to this on the basis that it would have the side effect of giving more ammunition to the detractors of nuclear power at this time. One of the suggestions made was that the ACRS discuss the advisability of writing such a letter, which would be addressed to the Commission, with the utilities and other members of the nuclear industry before a decision was made as to sending it. There was no agreement on a course of action, and this will be discussed further within the ACRS.

Chairman Hanauer also raised the question of whether the informal site reviews for nuclear power reactors, which now involve the AEC Regulatory staff, the ACRS, and the utility, should be made more formal in order to preclude the possibility of misleading the utility. The consensus seemed to be that informality is important and that proper emphasis should be made on the aim that it is the primary purpose of this procedure to rule out certain obviously undesirable sites. It seemed to be agreed that the procedure could be carried out without much modification.

I had lunch in the office with Julie Rubin.

At 2 p.m. I presided over Commission Meeting 2390 (action summary attached), where we continued our discussion of the budget.

At 3:20 p.m. I presided over Information Meeting 941 (notes attached).

The RULISON shot, which was scheduled for 5 p.m. today, was postponed for 24 hours or more because of the weather.

I attended a reception and press conference in the Science and Astronautics Committee chamber (Room 2318) of the Rayburn House Office Building. This affair was in connection with the presentation by the ACS Office of Chemistry and Public Affairs of the report "Cleaning our Environment - The Chemical Basis for Action."

Among those present at the reception were: Charles Price, Eric Ward, Richard L. Kenyon, B. R. Stanerson, Fred Wall, Fred Singer, Byron Riegel and Vance Cooper. 021

ADVISORY COMMITTEE ON REACTOR SAFEGUARDS
UNITED STATES ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

Honorable Glenn T. Seaborg
Chairman
U. S. Atomic Energy Commission
Washington, D. C. 20545

Subject: LOCATION OF POWER REACTORS AT SITES OF POPULATION DENSITY
GREATER THAN INDIAN POINT-ZION

Dear Dr. Seaborg:

As the use of nuclear power has grown, water-cooled power reactors of progressively larger size and reactor sites of increasingly higher population density have come to be employed. Simultaneously, progress has been made in improving the design and construction of such reactors so as to reduce the already low probability of occurrence of accidents and mitigate further any potential accident consequences. Although this progress has been reasonably commensurate with the increases in reactor size and population density, the Advisory Committee on Reactor Safeguards believes that additional steps are necessary to justify the use of sites more densely populated than the Indian Point-Zion type of site. The Committee believes that operation of large water-cooled power reactors at sites of somewhat greater population density may be appropriate if:

- (a) Prior to the time of receiving a construction permit, at least one year of satisfactory operating experience has been obtained with a reactor of generally similar design, power density, and power rating;
- (b) Prior to the time of starting power operation, at least ten reactor-years of satisfactory operating experience have been obtained with reactors of essentially the same design, power density, and power rating;

and if the measures described below, additional to those required for the Indian Point-Zion type of site, are adequately effected.

1. The containment system should be designed to reduce to substantially lower levels the off-site radiation doses in the unlikely event of a major reactor accident, and should be capable of maintaining this level of protection even with substantial degradation of the system. These more stringent requirements for the containment system are appropriate for higher population density sites, because the present guidelines assume that in an emergency members of the public in the low population zone can be evacuated or otherwise protected in timely fashion. For sites of higher population density, evacuation or other effective protective measures for the close-in population are less certain to be achieved in the short times required, and it is necessary that the containment system provide a greater degree of protection.
2. Increased emphasis should be placed on detailed consideration of possible accidents leading to small or moderate releases of radioactivity to the environment, and means should be provided to reduce still further the probability of occurrence of, and the consequences of, such accidents. In particular, increased attention should be given to potential radwaste accidents. Similarly, current practices related to fuel handling, storage, and shipping should be re-evaluated and changes implemented wherever found appropriate to increased safety.
3. Further reduction in the already small releases of radioactivity from routine plant operation should be effected.
4. The number of safety issues remaining to be resolved between the start of construction and initiation of operation at power should be minimized. Where it appears that resolution of a safety issue may not be accomplished by the time of start of reactor operation, the plant design should incorporate whatever alternative features are necessary to provide adequate protection. An example of such a feature is the provision of permanent in-core instrumentation for use in the event that out-of-core instrumentation should not prove adequate.
5. Because of the small likelihood that proof of the efficacy of engineered safety systems under accident conditions will be obtained as a consequence of actual accident experience, extra margin should be provided in the design of these systems wherever

*Inconsist
with (a)
sa pg. 1.*

Hon. Glenn T. Seaborg

- 3 -

such provision is practical and will clearly improve safety. As an example of extra margin, additional emergency core flooding capability might be appropriate.

6. Steps should be taken during the design of the reactor plant to provide further protection in areas related to possible degradation of reactor vessel integrity, such as leaks and vessel wall ruptures. The protective features provided should be of such design as to preclude their jeopardizing vessel integrity.
7. Additional consideration should be given in the design of the plant to protection against damage by missiles.
8. Greater assurance of maintenance of integrity of any portions of the primary system outside the containment, and appropriate additional means for coping with possible loss of their integrity, should be provided.

The ACRS emphasizes again the vital importance of quality assurance, and the necessity for adequate consideration of diverse and independent means of protection against common failure modes in safety systems.

The Committee believes that realization of item (a) and demonstration of reasonable assurance of realization of item (b), together with adequate implementation of items 1 - 8, could provide a basis for considering applications for construction permits for large water-cooled power reactors at sites of somewhat greater population density than that of the Indian Point-Zion type of site (e.g., approximating that of the Burlington site). The Committee also believes that the additional protective features eventually resulting from these measures need not necessarily be incorporated in reactor plants either existing or yet to be constructed at sites of population density equal to or less than that of Indian Point-Zion.

Additional remarks of Dr. Stephen H. Manauer are attached.

Sincerely yours,

Joseph M. Hendrie
Acting Chairman

ADDITIONAL REMARKS BY DR. STEPHEN H. MANAHER

In my opinion, approval of sites more densely populated than Indian Point-Zion for large water-cooled reactors should be based on verified facts, rather than reasonable assurance regarding the outcome of work not yet completed, as is appropriate for present sites, where evacuation of the surrounding population is feasible in an unforeseen emergency. For this reason, I cannot agree with the conclusion of this report, even though I concur with many of its recommendations. I do not believe that the necessary knowledge and experience are now available to support such a conclusion. It is my hope and expectation that the needed knowledge and experience will be obtained; that would be the appropriate time to consider the use of more densely populated sites, and suitable criteria for such use.



DECL. BY DOE
NOV 86

UNITED STATES
ATOMIC ENERGY COMMISSION

WASHINGTON, D.C. 20545

September 4, 1969

Approved _____

REH

Date _____

R. E. Hollingsworth, General Manager

ACTION SUMMARY OF MEETING 2390, THURSDAY, SEPTEMBER 4, 1969, 2:00 P.M.,
ROOM 1115, D. C. OFFICE

SECY:JFB

Commission Business

AEC 1311/10 - FY 1971 Budget - see also

AEC 1311/11 - Statistical Tables for FY 1971 Budget Estimates

AEC 1311/12 - FY 1971 Major Program Issues

AEC 1311/13 - Supplement to AEC 1311/10 - FY 1971 Budget

AEC 1311/16 - FY 1971 Budget Estimates - Laboratories

AEC 580/302 - 1969 Materials Planning Estimate

AEC 580/303 - AEC Contingency Reserve

Discussed.

The Commission:

- a. requested the following RDT budget line item changes:
 - i. Ultra High Temperature Reactor Experiment (UHTREX) under Advanced Systems Research & Development be transferred to Civilian Power Reactors;
 - ii. Pu Utilization be entirely transferred to General Reactor Technology, closing out Pu Utilization as a line item;
 - iii. Merchant Ship Reactors (\$0.3 million) be restored in both budget cases;
- b. requested the Sodium Instrument and Related Component Test Tower (SIRCTT) construction project (\$3.1 million) be restored to both budget cases and made a Category C priority item;
- c. requested recent Gulf General Atomic correspondence (Mr. John Landis' August 14 letter to Mr. Shaw and Mr. Zane Johnson's August 26 letter to the Chairman) be read with the view of changing Other Fast Breeder Reactors as a line item to read High Temperature Gas-Cooled Reactors.
(AGMR/RDT/OC)

September 4, 1969

The Commission approved the General Manager's recommendations that:

- a. The \$1.1 million reduction in the GM budget case for Isotope-Brayton Technology in the Space Electric Program be restored for a total of \$2.0 million in that case; and
- b. The entire Division request of \$3.0 million for Combined Zirconium-Hydride Rankine Test (NASA Support) be restored to the GM budget case.

(AGMR/SNS/OC)

The Commission in the Physical Research Program:

- a. requested the Tandem/Cyclotron Accelerator System be changed as a line item to read Heavy-Ion Accelerator (Tandem/Cyclotron);
- b. requested Modifications to the Electromagnetic Isotope Separations Facility (\$1.3 million) be restored to both budget cases; and
- c. requested Princeton Pennsylvania Accelerator (PPA) be flagged for further discussion.

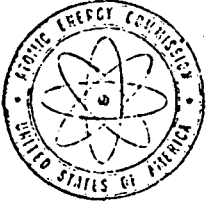
(AGMRD/R/OC)

The Chairman suggested the Commissioners read Princeton University President Robert Goheen's August 20 letter to him in the context of the proposed budget action on the PPA. (SECY)

W. B. McCool
Secretary

W. B. McCool
Secretary

cc:
Chairman Seaborg
Commissioner Ramey
Commissioner Johnson
Commissioner Thompson
Commissioner Larson



UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

UNCL. BY DCE
NOV 86

COPY NO. 3
September 4, 1969

INFORMATION MEETING 941

3:20 p. m., Thursday, September 4, 1969, Room 1115, D. C.

1. AEC 1318 - Selected Information on Electric Utilities in New England

Mr. Brown suggested review prior to the September 11 Burlington Meeting.
(AGM)

2. AEC 1318/1 - Nuclear Power, the Environment, and Public Organizations

Noted. (AGM)

3. Mr. Brown's September 3 Memorandum re AEC Presentation in Burlington, Vermont, September 11, on Nuclear Power and the Environment

Noted. Additional documents for the Commissioners' briefing books are requested. (AGM)

4. Possible Reduction of Uranium Ore Deliveries

The Commissioners approved informal discussions with the industry. (RM)

5. AEC 588/81 - FFTF Sub-Subcontract

To be rescheduled Monday, September 8, 1969. (SECY)

6. August 29 Letter from Philip Hughes, BOB, re NPR

Staff views are requested. (P)

7. Mr. Hennessey's September 2 Memorandum re Monticello Nuclear Generating Station

8. AEC 1309/11 - JORUM Public Announcement and Related Matters

Staff will review with the Commissioners. (PI-SECY)

9. Agenda for the Week of September 8, 1969

Approved. (SECY)

W. B. McCool
Secretary

3:50 p. m.

PRESENT:

COMMISSIONERS:

Chairman Seaborg
Commissioner Ramey
Commissioner Johnson
Commissioner Thompson
Commissioner Larson

STAFF:

Mr. Hollingsworth
Mr. Bloch
Mr. Brown
Mr. Rubin
Mr. Ryan
Mr. McCool
Mr. Harris*
Mr. Stokeley*
Mr. Vinciguerra*
Mr. Kavanagh*
Mr. Shaw*

DISTRIBUTION:

Commissioners
General Manager
General Counsel
Secretary

*Attendance by Topic (s)

Following the reception a panel, consisting of Congressmen George Miller and Emilio Daddario, and Wallace Brode, Dr. Milton Harris, Dr. William O. Baker (Vice President-Research, Bell Telephone Laboratories, Inc.), Dr. Lloyd M. Cook (Union Carbide, Chicago), Dr. Franklin A. Long (Cornell University), Thurston Larson, James Lodge, Daniel McDougall and James Morgan, sat at the hearing table. Each of these spoke briefly about the importance of the ACS Report. The press then asked questions.

Vance Cooper and I then rode to the NAS Building, where we attended a reception given by the National Academy of Sciences and the National Science Board (in the Great Hall) in honor of Dr. and Mrs. Lewis M. Branscomb (Director, NBS), Dr. and Mrs. Clarence E. Larson (Commissioner, AEC), Dr. and Mrs. Robert Q. Marston (Director, NIH), Dr. and Mrs. William D. McElroy (Director, NSF), Dr. and Mrs. Thomas O. Paine (Administrator, NASA), and Dr. and Mrs. Theos J. Thompson (Commissioner, AEC).

I received a copy of a memo to Bill Riley from J. Edgar Hoover (copy attached) advising that the FBI is discontinuing their active investigation of the matter concerning diversion of plutonium but indicating Hoover would prefer we terminate the classified contracts of the person involved and lift his security clearances.

I received a letter from Secretary of State Bill Rogers (copy attached) saying he hopes I will find it possible to undertake a trip to several key African countries during the first half of January.

Friday, September 5, 1969 - D.C.

I viewed the new Argonne National Laboratory film entitled "The Plutonium Journal," in which I am interviewed on the historical aspects of plutonium.

Phil Jacques (Counselor, Alternate to the Resident Representative to the IAEA) stopped by to say hello.

At 11:30 a.m. Commissioners Johnson, Thompson, Larson and I, Bob Hollingsworth, George Kavanagh, Milt Shaw, Julie Rubin and Myron Kratzer met with Dr. Ludwig Weiss (Austrian Federal Minister of Transport and Nationalized Industries). Also present were Fredrich Staudinger (Assistant to the Minister), Dr. Robert Tscheck (Director General, Ministry of Transport), Dr. Gerald Hinterregger (Austrian Embassy Counselor), Dr. Peter Niesner (Embassy Third Secretary), Harry Obst (State, Interpreter) and Donovan Zook (State). I made some welcoming remarks in which I expressed pleasure in having Weiss and his party visiting the United States and took note of the long history of Austrian-U.S. cooperation in the field of peaceful uses of nuclear energy and our interest in their future plans in this field. Weiss responded by expressing his appreciation for our hospitality and described some of the interest that Austria has in developing nuclear power. Shaw gave a description of the highlights of the civilian nuclear power program and Kavanagh described the U.S. fuel supply policies.

We all then walked to Blair House where I hosted a lunch for the group. Present at the lunch, in addition to those that had been present at our joint meeting, were George Weiss (Member of the Austrian Consulate General), Dr. Wallace Joyce (State), Robert Beaudry (State), Dr. Helmut Sonnenfeldt (NSC), James M. Beggs (Under Secretary of Transportation), Tom Lilley (Director,



UNITED STATES DEPARTMENT OF JUSTICE

FEDERAL BUREAU OF INVESTIGATION

WASHINGTON, D.C. 20535

(NI) 117-2364

Date: September 3, 1969

BY LIAISON

To: Mr. William T. Riley
Director
Division of Security
Atomic Energy Commission
Washington, D. C.

J. Edgar Hoover
From: John Edgar Hoover, Director

Subject: DR. ZALMAN MORDECAI SHAPIRO
INTERNAL SECURITY - ISRAEL
ATOMIC ENERGY ACT

Reference is made to your letter of August 28, 1969, transmitting a summary of an interview with Shapiro held on August 14, 1969, and advising that the Atomic Energy Commission (AEC) does not contemplate further action in this matter at this time.

We have conducted a thorough and extended investigation of Shapiro for more than a year, including substantial physical surveillance coverage. We have developed information clearly pointing to Shapiro's pronounced pro-Israeli sympathies and close contacts with Israeli officials, including several Israeli intelligence officers. It is believed most unlikely that further investigation will develop any stronger facts in connection with the subject's association with Israeli officials. The basis of the security risk posed by the subject lies in his continuing access to sensitive information and material and it is believed the only effective way to counter this risk would be to preclude Shapiro from such access, specifically by terminating his classified contracts and lifting his security clearances. However, after careful consideration, including an interview with Shapiro, you have advised that your agency plans no further action in this matter at this time.

Mr. William T. Riley

Under these circumstances, we are discontinuing our active investigation of the subject. We will, of course, continue to keep interested agencies advised of any pertinent information concerning the subject which may be received from our sources.

UNCL. BY DOE
NOV 86

THE SECRETARY OF STATE
WASHINGTON

September 3, 1969

Dear Glenn:

I believe our staffs have discussed the possibility of your undertaking a visit to several key African countries during the first half of January. I hope that you can find it possible to make such a trip.

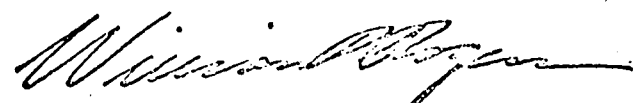
I understand that you have a happy faculty for stimulating the professional interests of scientific groups while at the same time getting across to laymen in influential public positions a better appreciation of the important relationships between science and public policy. In light of the important interplay of technology, economic development, and political stability, there is no question in my mind that our relations with many of the countries of Africa would benefit from a visit by a distinguished American scientist and senior public official such as yourself.

In considering the specific countries which have been suggested, I believe that our objectives in Morocco, Ghana, Congo, Ethiopia, Tunisia and Kenya would be advanced by such a trip if you can find it possible to arrange your schedule to include these countries.

I am asking Herman Pollack to keep in touch with you regarding your plans for this trip so that we can achieve the maximum foreign policy benefit from your visits.

With best personal regards,

Sincerely,



William P. Rogers

The Honorable
Glenn T. Seaborg,
Chairman,

Export-Import Bank), George Murphy (JCAE), Howard Brown and Jim Ammons. Following lunch I welcomed Minister Weiss and his colleagues on behalf of my fellow commissioners, the AEC staff and the other government officials present. I mentioned my visits to Vienna in connection with the IAEA meetings and my great pleasure at visiting the historic Radium Institute; I mentioned the names of such historic giants of radiochemistry as Hönigschmid, Paneth, etc. I emphasized our interest in continuing cooperation with Austria in the development of their nuclear power program and ended by proposing a toast to Austrian-U.S. cooperation. Weiss responded with words of appreciation, making reference to his tour of U.S. nuclear facilities, including Oak Ridge National Laboratory, TVA and private nuclear power reactor stations. He ended by proposing a toast to me and to the success of the future work of the USAEC.

At 3 p.m. I met with Howard Nason and General Lloyd E. Fellenz (Monsanto Research Corporation). Julie Rubin was also present. Nason said that he is worried about the future marketing of Cf-252. The method that the AEC has chosen of developing this market, through the use of Savannah River personnel, has in effect led to freezing out Mound Laboratory from the neutron source market. He said that there has been a lack of liaison here, possibly the fault of both the AEC and industry and Mound Laboratory, because industry and especially the Mound Laboratory could have undertaken this Cf-252 market development program. I explained to him the background for the Savannah River market development program, indicating that, if this program had not been developed on an unusual time scale, it would have been necessary to shut down the Savannah River reactors. I did agree, however, that we would look into the situation, and particularly we would determine whether it might be possible to allocate some of the Cf-252, which is presently in such short supply, to Mound in order to allow them to participate in the market development and thus retain to some extent their position in the neutron source market.

Attached is a copy of a memorandum suggesting an item for possible use in the daily report to the President.

At 4:25 p.m. Thomas H. O'Connor (President, O'Connor and Company, Inc., Boston) dropped in to see me. He wanted to inform me of his desire to get into the market for the construction of nuclear power reactors. I said that I would have our people get in touch with him to describe the requirements for this.

I attended a black tie dinner in the Georgetown Room of the Washington Hilton Hotel given by Dr. Ludwig Weiss. Toward the end of the dinner Dr. Weiss delivered some nice remarks, beginning in English and continuing in German. He described the friendly relations between Austria and the United States, the great impact of the Apollo 11 TV broadcast on the people of Austria and expressed the hope for continuing cooperation between our countries. A little later I responded by expressing appreciation for his kind remarks concerning the friendship between our countries and his graphic account of the impact of Apollo 11 on the people of Austria. I expressed my hope and that of my fellow commissioners, the representatives of the Department of Transportation, the U.S. utility industry, etc. that our cooperation would continue. I ended by proposing a toast to the President of Austria and Weiss proposed a toast to the President of the United States.

September 5, 1969

MR. ALBERT TONER
DEPUTY ASSISTANT
THE WHITE HOUSE

DEAR MR. TONER:

The following item is submitted for your possible use
in the daily report to the President.

The delay of Project Rubicon for the second
24-hour period due to adverse weather conditions
was not resorted in any new attempts by individuals
or organizations outside the Commission to cancel
this event. Any further necessary delays beyond
this weekend may complicate the planned schedule
for the next large yield test in Nevada (Project
Jorum) as a public announcement for the test has
to be made sufficiently in advance to assure its
safe conduct. Project Jorum is presently scheduled
for execution on September 15. The public reaction
to both of these tests will inevitably carry over
to the planned large test on Nevada-like presently
scheduled for October 1.

Sincerely,

(Sgd.) Julius H. Rubin

Julius H. Rubin
Special Assistant
to the Chairman

cc: [unclear]

Chairman Seaborg
J. Bloom
H. Gearin ←

Saturday, September 6, 1969 - D.C.

I worked in the office until 12:45 p.m. Dianne and Yoshie Kadota accompanied me and spent the morning in the office. The three of us had lunch at the Hot Shoppes.

Yoshie, who spent the week with us as our house guest, flew to New York in the afternoon to attend the annual meeting of the American Chemical Society.

David and I played twelve holes of golf at the Chevy Chase Club. David shot 120 and I, 65, with 93 and 50, respectively, for nine holes.

Allyne Snyder had dinner with us.

After dinner we called Lynne at Cambridge, Massachusetts, to congratulate her on her twenty-second birthday. We learned that early in October, after a vacation in DeWitt, Iowa (to see Bill's mother), New England and Canada, they plan to visit us with the view of trying to find jobs in the Washington area and living here during the coming year.

Sunday, September 7, 1969 - Home

I read proof on my article for the Journal of Chemical Education, "Prospects for Further Considerable Extension of the Periodic Table" and also read AEC papers, etc.

Eric and I played nine holes of golf at the Chevy Chase Club. Eric shot 59 and I, 45.

After dinner Curtis Lambert, our cousin from Maywood, Illinois, and the great great grandson of Peter Seaborg, and his friend, John Breitenberg (of Wheaton, Maryland) visited us.

Senator Everett M. Dirksen died today following an operation last Thursday for removal of a part of his right lung.

Monday, September 8, 1969 - Germantown and D.C.

I spoke in the Germantown Auditorium to the campaign leaders of the AEC Combined Federal Campaign. I was introduced by Bob Kohler, campaign manager, in the presence of Ed Bloch. I then came in to spend the remainder of the day at the H Street office.

Commissioners Thompson, Ramey and Larson met with members of the JCAE during the morning to try to convince them that we have come to a reasonable settlement with the U.K. of the problems connected with the possible use by the U.K. of U.S. information, in connection with the U.K. role in the tripartite agreement for the development of the gas centrifuge. The JCAE, especially Staff Member George Murphy, still has some problems, and it apparently will be necessary to try to make some changes in the U.S.-U.K. aide memoire covering this situation.

I had lunch in the dining room with Julie Rubin, Stan Schneider and Bob Kaye. We discussed matters that need to be completed before my departure for Europe on Saturday.

At 2:30 p.m. I presided over Commission Meeting 2391 (action summary attached). We heard a report from Rickover in which he described the successful test of the NR-I submarine in which he participated. He also gave us a summary of the status of our nuclear submarines and ships. We went over his items in the impending FY 1971 budget. After this the Commissioners continued to discuss the FY 1971 budget and decided to make some substitutions within the \$2,515,000,000 BOB target figure which would increase the support for the HTGR, physical research (in order to retain operation of the PPA and keep the Berkeley bevatron at a reasonable level) and in the nuclear space electric program. (A list of budget figures is attached.)

At 4:50 p.m. I presided over Information meeting 942 (notes attached). In an executive session we discussed the problem that Joe Perez (President, Florida Power Company) has had with our regulatory people caused by their continual (in his view) additions of new requirements for his nuclear power plant. This is a non-turnkey job and apparently Florida Power is having to pay the price for increasing costs and required changes. We decided this is a matter that will require close watching. We also discussed the restrictions on the construction budget that were imposed by President Nixon last week. If carried out literally, these restrictions could have a very serious effect on the AEC program and would halt construction of the 200 Bev Accelerator.

We have been receiving a large number of letters (approximately 150) protesting the RULISON shot. These seem to be the result of a letter writing campaign.

I received a letter (copy attached) from John A. Biggs (Director, Department of Game, State of Washington) expressing their appreciation for the assistance the AEC gave them in completing the transplant of sea otter from Amchitka Island to the State of Washington.

I received a letter from President Lyndon Johnson (copy attached) thanking me for sending him some pictures that I took at the Apollo 11 launch at Cape Kennedy on July 16.

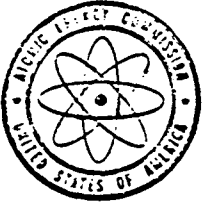
I wrote to Lynne to tell her how glad we are that she and Bill will be living in Washington and bring her up to date on family activities.

Tuesday, September 9, 1969 - D.C.

At 9:30 a.m. I met with Professor Kenneth W. Ford (University of California, Irvine) who wanted to discuss with me his proposal to write a history of the development of the thermonuclear weapon. I told him that there is some lack of enthusiasm for his project on the part of some of the Commissioners, and that, as I wrote him, it will not be possible for the Commission to finance his effort. I said that the thing that bothers some is the possibility that, although the history would be written as classified, he would undoubtedly want to have it de-classified, and this is a source of concern. I said, however, that if he wants to go ahead with it, I am sure that it will be possible to obtain the cooperation of the Commission and its staff.

I previewed the exhibit for the Vermont meeting which was set up in Room 1046.

At 10:20 a.m. I presided over Commission Meeting 2392 (action summary attached). We approved the continuation of resident inspection as a practical



ENCL. BY DOE
NOV 86

UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

September 8, 1969

Approved _____

REH

Date _____

R. E. Hollingsworth, General Manager

ACTION SUMMARY OF MEETING-2391, MONDAY, SEPTEMBER 8, 1969, 2:45 P.M.,
ROOM 1115, D. C. OFFICE

SECY:SBR

Commission Business

AEC 1311/10 - FY 1971 Budget - see also
AEC 1311/11 - Statistical Tables for FY 1971 Budget Estimates
AEC 1311/12 - FY 1971 Major Program Issues
AEC 1311/13 - Supplement to AEC 1311/10 - FY 1971 Budget
AEC 1311/16 - FY 1971 Budget Estimates - Laboratories
AEC 1311/17 - Comparison Cases for the Shut Down of Two Production Reactors
AEC 580/302 - 1969 Materials Planning Estimates
AEC 580/303 AEC Contingency Reserve

Discussed.

Commissioner Thompson requested staff assure that the AEC's presentation to the BOB on its Space Program be consistent with the presentation to be made by NASA on its Space Nuclear Power Program. (OC)

A Meeting with the NASA Administrator will be scheduled in October. (SECY)

Commissioner Ramey requested staff identify \$.4 million of reductions which could be made in the base case to offset a \$.4 million increase for advanced applied technology in the Isotopes Development program. (DID/OC)

Original signed

W. B. McCool

W. B. McCool
Secretary

cc:

Chairman Seaborg
Commissioner Ramey
Commissioner Johnson
Commissioner Thompson
Commissioner Larson

ADJUSTMENTS TO FY 1971 BUDGET AS SET FORTH IN AEC 1311/11

Total New Obligational Authority (Page 1 of AEC 1311/11)	General Manager Budget <u>\$2,922,859</u>	BOE Target <u>\$2,515,000</u>
	(In Thousands)	
Uranium Resources R&D.....	750	
GSO.....	250	
Merchant Ship Reactors.....		300
GSO.....		100
Isotope-Brayton technology.....	1,100	
GSO.....	400	
Combined Zr-H Rankine Test.....	3,000	
GSO.....	1,000	
Sodium Instrument Tower (SIRCTT).	3,100	
Modifications to Calutron.....		1,300
Princeton-Penn Accelerator-OE....	2,000	
GSO.....	600	
Delete Ion Exchange Facilities...	-3,000	
Revenue Increase (Increase in Lease Charge).....	-2,100	-2,100
LASL Secondary Storage Computer Equipment.....		400
	<u> </u>	<u> </u>
Total.....	<u>\$2,929,959</u>	<u>\$2,515,000</u>

Office of the Controller
September 5, 1969

GENERAL MANAGER PROPOSED ADDITIONS AND OFFSETS
IN FY 1971 BOB TARGET BUDGET

(In Millions)

ADDITIONS:

Increase Weapons.....	\$ 8.8
GSO.....	2.9
Increase HTGR.....	4.0
GSO.....	1.3
Increase Physical Research OE.....	5.0
GSO.....	1.7
Include Isotope-Brayton technology.....	2.0
GSO.....	.7
Increase Plowshare underground device testing.....	1.0
GSO.....	.3
Increase personnel to 70 Regulatory, 35 GM.....	<u>1.0</u>
Total.....	<u>\$ 28.7</u>

OFFSETS:

Raw Materials procurement (United Nuclear & Anaconda)	10.0	*
Bedrock Waste Storage.....	10.0	
Reduce LWBR (GSO):.....	3.8	*
Reduce fast gas cooled breeder.....	1.0	
GSO.....	.3	
Reduce modifications to reactors.....	1.0	
Reduce thermal effects effort (RDT and B&M).....	1.0	
GSO.....	.4	
Communities (Utilize Public Law 874).....	<u>1.2</u>	*
Total.....	<u>\$ 28.7</u>	

*These reductions would also be made in the Commission's budget and therefore would not be part of the priority listing.

Office of the Controller
September 8, 1969

Priority Ranking of Reductions
From GM FY 1971 Budget
Estimates to Meet BOB Target
(In Thousands)

Item	Total in GM Budget	Priority Group		
		A	B	C
Weapons Prod. & Testing (see also groups and C).....	\$641,800	\$ 15,000		
Advanced Reactor Development.....	138,200	2,000		
Advanced Reactor - Oper. (see also group B)....	180,244	17,200		
Advanced Reactor w/NRDS - Operating.....	67,320	47,600		
- Equipment.....	3,000	3,000		
.....	xxx	27,200		
TOTAL - A		<u>\$112,000</u>		
Weapons R&D.....	267,200		\$ 4,000	
Advanced Reactor - Operating.....	xxx		12,800	
- Plant.....	2,000		2,000	
Computers.....	52,490		29,860	
Hydride Space Program - Operating.....	15,000		15,000	
- Equipment.....	500		500	
- Plant.....	1,600		1,600	
Reactor - Heat Exch. & Flow Monitor Tubing	3,300		3,300	
- Confinement (Plant).....	3,000		3,000	
Program Direction and Administration.....	126,161		1,000	
BR.....	96,000		6,000	
R.....	15,000		5,000	
R and Th Utilization.....	10,000		2,000	
er Fast Breeders.....	4,000		3,000	
s to Reactors.....	3,000		1,000	
on Facility.....	14,500		4,000	
Physics Building.....	1,830		1,830	
.....	xxx		17,010	
TOTAL - B			<u>\$112,900</u>	
Weapons.....	xxx			\$ 11,600
Advanced Demo. Plant (includes GSO).....	15,000			15,000
Advanced Electric - Operating.....	37,325			3,600
Advanced Reactor Technology and Safety.....	89,600			1,000
Advanced Nuclear Materials - Operating.....	169,260			3,500
Advanced Share - Operating.....	22,950			2,900
Advanced Biological Research - Operating.....	302,000			7,000
Advanced Biology and Medicine - Operating.....	97,000			4,500
Advanced Topics - Operating.....	9,000			1,500
Advanced I - Operating.....	18,814			1,250
Advanced BR Demo. Plant (GSO).....	50,000			10,000
Advanced Materials - Operating.....	2,449			1,349
Advanced Bev.....	86,000			12,000
Advanced Rock Waste Storage.....	10,000			10,000
Advanced Utilities.....	1,600			1,600
Advanced Electronics Bldg., LASL, A/E.....	1,700			1,700
Advanced Bio. Lab.....	3,300			3,300
- 2 Plant Projects.....	5,300			5,300
- 3 Plant Projects.....	5,225			5,225
.....	xxx			11,795
TOTAL - C				<u>\$114,119</u>



UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

UNCL. BY DOE
NOV 86

COPY NO. 3
September 8, 1969

INFORMATION MEETING 942

4:50 p.m., Monday, September 8, 1969, Room 1115, D. C.

1. Executive Session Item

Commissioner Thompson will discuss with staff. (Rosen-SECY)

2. Joint Committee Executive Hearing this Morning

Discussed briefly by Commissioner Thompson who will prepare a redraft.
(Rosen)

3. AEC 459/100 - Uranium Enrichment Corporation Draft Legislation; and,
AEC 459/101 - Organization of Government Corporation for Uranium
Enrichment

To be scheduled tomorrow, September 9. (SECY)

4. September 11 AEC Presentation in Burlington, Vermont, on Nuclear Power
and the Environment

The Chairman will participate in the 7:00 p.m. press conference. (AGM)

5. September 3 Letter from Congressman Karth re Questions from the
Minnesota Pollution Control Agency

An early response is requested. (AGM)

6. September 3 Letter from Dave Packard, Deputy Secretary of Defense, re Interim Approval of Nuclear Weapon System Safety Rules - Procedures

Commissioner Thompson will discuss with Dr. Carl Walske, DOD. (Rosen)

7. Proposed Letter to President Robert Goheen, Princeton, re Impact of Possible Reductions in Operating Budget for Princeton-Pennsylvania Accelerator

A revised draft reply is requested. (R)

8. September 2 Letter from Senator Magnuson re Amchitka

The Chairman will telephone Senator Magnuson. (Rubin)

9. Oral Report on Project Rulison

Congressman Craig Hosmer is to be advised. (PNE-Congr.)

10. Construction Budget Restrictions

Noted. (OC)

11. AEC 459/102 - Questions from Joint Committee on Testimony Relative to Future Ownership of AEC's Gaseous Diffusion Plants

The Commissioners' comments are to be addressed to staff. (AGMP&P-SECY)

12. AEC 1309/12 - Execution Data for the Milrow Event

Approved. (AGMMA)

13. AEC 867/154 - AEC/DOD Inventory Reporting Procedures

Approved subject to the Commissioners' comments. (AGMMA-SECY)

14. AEC 374/218 - Impact and Capabilities Study

Revisions in the proposed letter are requested. (AGMMA-SECY)

15. AEC 226/462 - Interagency Study of Plowshare and LTBT

The Chairman suggested the Commissioners' comments be addressed to staff and requested preparation of a talking paper for use at the meeting of the Under Secretaries Committee. (SAD)

16. AEC 811/268 - Proposed Answers to JCAE Inquiries on H. R. 477
Approved for signature by the General Manager. (PNE)
17. DC 588/81 - FFTF Sub-Subcontract (See also Commissioner Thompson's September 8 Memorandum)
Scheduled tomorrow, September 9. (SECY)
18. AEC 973/117 - U. S. Statement for IAEA's Thirteenth General Conference
The Commissioners' comments are to be addressed to staff. Conference strategy will be scheduled for discussion tomorrow, September 9.
(AGMIA-SECY)
19. AEC 979/84 - Brazilian Nuclear Energy Commission Chairman's Visit to the U. S.
Noted. (AGMIA-SECY)
20. AEC 695/51 - Report on Depleted Uranium
To be rescheduled. (SECY)
21. Pending Contractual Matters Report No. 324
To be rescheduled. (SECY)
22. Mr. Hennessey's September 4 Memorandum re In the Matter of Trustees of Columbia University
Approved. (GC-SECY)
23. AEC 1309/11 - JORUM Public Announcement and Related Matters
Approved. (PI)
24. NTS Events (See General Giller's September 4 Memorandum)
Noted. (AGMMA)
25. AEC 745/56 - Atomic Industrial Forum/Commission Meeting on October 16, 1960
Approved. (IP-SECY)

26. Joint Committee September 12 Hearings on the AEC Omnibus Bill
(See AEC 1299/9)

The testimony has been circulated. Staff will testify. (GC-SECY)

27. Appointment to the ABCC

28. Intelligence Report

W. B. McCool
Secretary

6:10 p.m.

PRESENT:

COMMISSIONERS:

Chairman Seaborg
Commissioner Ramey
Commissioner Johnson
Commissioner Thompson
Commissioner Larson

STAFF:

Mr. Hollingsworth
Mr. Bloch
Mr. Hennessey
Mr. Abbadessa
Mr. Rubin
Mr. Kull
Mr. McCool
Mr. T. Clark*
Mr. F. Clark*
Gen. Giller*
Mr. Kelly*
Mr. Hamburger*
Mr. Quinn*
Mr. Gerber*
Miss Joseph*
Mr. Kavanagh*
Mr. Giambusso*
Mr. Smith*
Mr. Friedman*
Mr. McColley*

DISTRIBUTION:

Commissioners
General Manager
General Counsel
Secretary

*Attendance by Topic (s)

Game Commission / Claude Bekins, Seattle, Chairman
Edson Dow, Wenatchee
Harold A. Pebbles, Olympia
Arthur S. Coffin, Yakima
James R. Agen, LaConner
Elmer G. Gerken, Quincy
Director / John A. Biggs

UNCL. BY CO
NOV 86

State of Washington



DEPARTMENT OF GAME

600 North Capitol Way / Olympia, Washington 98501

September 5, 1969

Mr. Glenn T. Seaborg, Chairman
U. S. Atomic Energy Commission
Washington, D. C. 20545

Dear Mr. Seaborg:

May I on behalf of the Washington State Game Commission, and I am sure all of the citizens of the State of Washington, express to you and the people of your organization our deep appreciation for the invaluable assistance you gave us in successfully completing an historic transplanting of sea otter from Amchitka Island of Alaska to the State of Washington.

The fact that these animals can be again reintroduced in the State has great meaning to all people who have an interest in conservation, and we are hopeful that the project will be successful.

Without your full, friendly and complete cooperation and assistance, this project would not have been possible, and we are very grateful for it.

Very truly yours,

THE DEPARTMENT OF GAME

A handwritten signature in dark ink, appearing to read "John A. Biggs".

John A. Biggs, Director

JAB:jm

cc: Members, Atomic Energy Commission



WJ

AUSTIN, TEXAS

Dear Glenn:

Mrs. Johnson and I so much enjoyed looking at the pictures you thoughtfully sent. Thank you for sharing them with us.

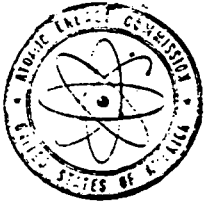
We send you our best.

Sincerely,

A handwritten signature in dark ink, appearing to be "W. J. ...".

Honorable Glenn T. Seaborg
Chairman, United States Atomic
Energy Commission
Washington, D. C. 20545

September 3, 1969



UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

BY DOE
NOV 86

September 9, 1969

Approved _____

REH

Date _____

R. E. Hollingsworth, General Manager

ACTION SUMMARY OF MEETING 2392, TUESDAY, SEPTEMBER 9, 1969, 10:20 A.M.,
ROOM 1115, D. C. OFFICE

SECY:LGH

Commission Business

1. AEC 1311/10 - FY 1971 Budget - see also
AEC 1311/11 - Statistical Tables for FY 1971 Budget Estimates
AEC 1311/13 - Supplement to AEC 1311/10 - FY 1971 Budget
AEC 1311/16 - FY 1971 Budget Estimates - Laboratories
AEC 1311/17 - Comparison Cases for the Shut Down of Two Production Reactors

Approved with changes.

The Commission:

a. Agreed a \$10 million reduction in Raw Materials procurement was necessary;

b. Agreed the dollar reductions from the shutdown of two production reactors to reach the BOB target budget should be as shown in AEC 1311/11, however the specific reactors involved would not be identified in the formal Commission submission to the BOB;

c. Agreed no change would be made in the budget caption "Other Fast Breeder Reactors"; however a description of the gas-cooled and other concepts would be set forth in the budget justification;

d. Agreed \$300,000 would be added to Isotopes Development in the BOB target, offset by a reduction in "Procurement of Special Nuclear Materials";

e. Agreed the BOB's assumption of \$28.50 charge per unit of separative work would be considered later;

f. Agreed the proposed letter to the BOB as set forth in AEC 1311/10 would contain:

- (1) additional sentences between paragraphs 1 and 2 to explain why the Commission has encountered difficulty in reaching the BOB target especially in view of previous years' budgetary stringency coupled with the lack of offsetting raw material and electric power reductions this year;

- (2) changes in the final sentence of paragraph 3 to read "Establishment of sources of funding in lieu of appropriation starting in fiscal year 1971 would have a significant effect on the Commission's budget requests";
- (3) additional material in paragraphs 6 and 7 stressing the importance of the production reactors, NERVA, and the zirconium hydride reactor;
- (4) changes in paragraph 8 emphasizing the interest of the President and Dr. DuBridge in basic research in the physical and life sciences;
- (5) changes in the final sentence of paragraph 9 to read "... and also damage the excellent reputation earned by the AEC in this field for which it has been commended by the Congress"; and

g. Agreed the final sentence of the FY 1971 Major Program Issues summary statement regarding transfer of the Hanford NPR should be changed to read "In light of the above, AEC believes that the efforts currently being made should lead to a situation of licensability of the NPR as soon as feasible".

(OC)

The Commission also agreed the Division of Research would furnish a tabulation showing how the additional \$5 million in the BOB target case would be distributed to activities. (R)

2. AEC 580/302 - 1969 Materials Planning Estimates
AEC 580/303 - AEC Contingency Reserve

Approved. (AGM/PA)

3. AEC 274/47 - Heavy Water Production

Discussed.

The Commission noted the General Manager's recommendation that Lorne Gray, Chairman of the AECL, be informally advised that some additional quantity of heavy water would be available for purchase from the AEC, but decisions on the specific amount had not yet been made. Mr. Hollingsworth also suggested Mr. Gray be informed the Commission might reexamine its heavy water pricing policy. (AGMP&P)

4. AEC 964/3 - Contracts for Supporting Services at Los Alamos

Approved. (DC)

5. AEC 1316 - Extension of Contract for Occupational Health Services at Richland

Approved. (DC)

6. AEC 213/145 - Resident Inspection in Domestic Nuclear Materials

Approved, as revised.

The Commission:

a. Requested paragraph 25b. be changed to read: "Approve continuation on a trial basis the application of resident inspectors at licensed spent full processing facilities"; and

b. Requested paragraph 21 be changed to avoid the implication AEC intends to seek full cost recovery for the resident inspector.

(SMM)

7. AEC 213/144 - Development of Transportation Safeguards Policies

Approved, as revised.

The Commission agreed paragraph 19b. should be changed to read "Approved for discussion with industry the following suggested general criteria for transportation safeguards". (SMM)

8. AEC 25/429 - Proposed Navy Safety Rules
AEC 25/430 - Proposed Navy Safety Rules
AEC 25/431 - Proposed Navy Safety Rules

Approved. (DMA)

9. AEC 25/427 - Proposed Air Force Safety Rules
AEC 25/428 - Proposed Air Force Safety Rules

Approved, with a request that staff reemphasize the Commission's position on interim safety rules in the letter to the Secretary of Defense.

Commissioner Johnson requested a detailed briefing on the BOMARC weapon system.

(DMA)

W. B. McCool
Secretary

cc:
Chairman Seaborg
Commissioner Ramey
Commissioner Johnson
Commissioner Thompson
Commissioner Larson

exercise from the safeguards point of view at the Nuclear Fuel Services chemical reprocessing plant. We also approved a plan for the development of safeguards policies for the transportation of nuclear material, including the holding of a major government-industry meeting on October 1 and 2 to discuss this program.

At 1 p.m. I presided over Information Meeting 943 (notes attached) which included a working lunch. We selected Walter H. Zinn to be the recipient of the 1969 Enrico Fermi Award from a list recommended by the GAC which included the names of Norris E. Bradbury and Leslie R. Groves. We decided that the ceremony might be held either on December 2 in San Francisco, at the time of the AIF meeting, or on December 8 in Washington. The President will be invited to participate and his availability, or lack of availability, would determine the date. We decided to give the AEC citation to Drs. Lauriston Taylor, George B. Darling and Paul M. Gross. The presentation to Darling might be made at the time of our visit to Tokyo (in March, 1970).

We discussed the report on the investigation of the fire at the Rocky Flats plant which took place on May 11, 1969. This report, prepared by an AEC staff investigating committee, is critical of the Dow Company management, of the Albuquerque Operations Office management and of the Headquarters review and compliance procedures. It was decided to prepare a more balanced report, still including all of the pertinent facts, for subsequent release to the public. The AEC staff report, which is classified, will be made available to Area Office Managers, the JCAE and the BOB.

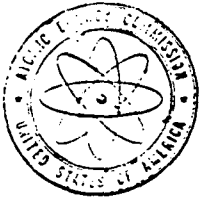
Because the RULISON shot was again delayed and may be delayed up to a week, it was decided to go ahead with JORUM in Nevada; this had been scheduled to follow the RULISON shot so that adverse public reaction to both of them wouldn't augment each other too much.

We decided to reduce uranium ore purchases by another 2,000 or more tons in order to aid our FY 1971 budgetary problem. We tentatively approved the sale of some 12,000 kg. of 93% enriched U-235 for a high temperature gas cooled power reactor in Brazil; this, of course, has safeguard implications, and there was some discussion as to the wise course of action here.

We then went into Regulatory Information Meeting 367 at 3 p.m. (notes attached) where we discussed the possibility of lowering the prescribed limits for radioactivity at the boundaries of nuclear power plants; we came to no definite conclusion on the course of action pending further study.

I called Senator Magnuson's office and in his absence spoke to his Press Assistant, Duwayne Trecker, regarding the Senator's letter of September 2 requesting postponement of the MILROW shot. I explained to him that postponement isn't feasible and emphasized that this is only a calibration shot, no larger than previous shots. I said that it will be possible to further evaluate the situation before the final large shot is fired at Amchitka about a year from now. I said that we will certainly discuss this with Senator Magnuson before proceeding.

A story appeared in Newsweek concerning the controversy over RULISON and MILROW and one appeared in Life on the mounting controversy over the environmental effects of nuclear power plants. The Life story was rather adverse from the standpoint of the AEC.



UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

DECL. BY DOE
NOV 86

COPY NO. 5
September 9, 1969

INFORMATION MEETING 943

1:00 p.m., Tuesday, September 9, 1969, Chairman's Conference Room, D. C.

EXECUTIVE SESSION

1. Studies re Uranium Miners

Commissioner Ramey queried the status of the studies and suggested a meeting. (SECY)

2. Enrico Fermi Award for 1969

Approved. (SECY)

3. AEC 767/24 - Ernest Orlando Lawrence Memorial Award

Approved with a change. (SECY)

4. Chairman's Meeting with Messrs. McCracken, Flanigan, et. al., at the White House, 4:15 p.m., Friday, September 12.

5. Chairman's Call to Senator Magnuson's Staff re the September 2 Letter on Testing at Amchitka

The Chairman reported briefly on his telephone conversation with Senator Magnuson's assistant and requested preparation of a brief response to the Senator's September 2 letter. (AGMMA)

6. AEC 780/43 and AEC 780/44 - AEC Citation

Approved. (SECY)

General Manager's September 4 Memorandum re Special Report

Alternative recommendations are requested. (AGMO)

8. Personnel Item

A response to the September 3 letter is requested. (AGMA)

9. AEC 696/165 - NPR Operation

Approved with changes. (AGMP&P)

10. AEC 459/100 - Uranium Enrichment Corporation Draft Legislation
(See also AEC 459/101)

The Commissioners will discuss further with staff. (AGMP&P-GC-SECY)

11. AEC 20/221 - Further Reduction in U₃O₈ Purchases

Approved with a change. (RM-PI)

12. AEC 588/81 - FFTF Sub-Subcontract (See also Commissioner Thompson's
September 8 and 9 Memoranda)

Approved subject to the Commissioners' review of Commissioner Thompson's September 9 memorandum. (RDT-SECY)

13. AEC 588/82 - LMFBR Demonstration Plant Program

Approved. (RDT-DC)

14. AEC 811/269 - Proposed Plowshare Excavation Experiment - Project
Sturtevant

Approved with revisions in the letter to Under Secretary Richardson. (PNE)

15. Commissioner Johnson's Report on Under Secretary Alexis Johnson's Call re
Cooperation with the Europeans on Diffusion Plants

Noted. (SECY)

16. AEC 1318/3 - RL Proposal for National Environmental Pollution Study Center
Approved subject to Commissioner Ramey's concurrence. (AGMO-SECY)
17. Staff Recommendations re NTS Events (Minutesteak and Jorum)
Approved subject to Commissioner Ramey's concurrence. (AGMMA-PI-SECY)
18. AEC 850/10 - Availability of Highly Enriched Uranium for Power Reactor Applications Under Toll Enriching
Additional information is requested. To be reviewed with Commissioner Thompson prior to rescheduling tomorrow. (AGMIA-SECY)
19. AEC 1251/9 - Limiting Foreign Access to Unclassified Technical Information
To be discussed with Commissioner Thompson and rescheduled tomorrow. (AGMIA-SECY)
20. AEC 1044/26 - ANS Plowshare Symposium - Request for NTS Tour
Rescheduled tomorrow. (SECY)
21. AEC 89/170 - Polish National: Proposed Participation at BNL and Brief Visit to ANL
Approved subject to Commissioner Ramey's concurrence. (AGMIA-SECY)
22. Conference Strategy for the 13th General IAEA Conference (See AEC 973/117 - U.S. Statement for IAEA's Thirteenth General Conference)
Rescheduled tomorrow. (SECY)
23. AEC 1299/9 - Draft Testimony on the AEC Omnibus Bill (See also AEC 1299/10 and 1299/11)
Approved subject to the Commissioners' comments. (GC-SECY)
24. AEC 994/66 - Polonium 210 Pricing
Approved with a request and subject to Commissioners Ramey and Johnson's concurrence. (ID-SECY)

25. AEC 994/67 - Strontium 90 Pricing

Approved subject to Commissioners Ramey and Johnson's concurrence.
(ID-SECY)

26. Pending Contractual Matters Report Nos. 324 and 325

Noted subject to Commissioners Ramey and Johnson's concurrence.
(PAR-SECY)

W. B. McCool
Secretary

4:35 p.m.

PRESENT:

COMMISSIONERS:

Chairman Seaberg
Commissioner Ramey*
Commissioner Johnson*
Commissioner Thompson
Commissioner Larson

STAFF:

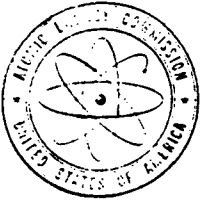
Mr. Hollingsworth
Mr. Bloch
Mr. Hennessey
Mr. Abbadessa
Mr. Rubin
Mr. Kull
Mr. McCool
Mr. Erlewine**
Mr. Vinciguerra**
Mr. Ryan**
Mr. Quinn**
Mr. Faulkner**
Mr. Reich**
Mr. Giambusso**
Mr. Williamson**
Mr. Hamburger**
Mr. Kelly**
Gen. Giller**
Mr. English**
Mr. Kratzer**
Mr. Harris**

DISTRIBUTION:

Commissioners
General Manager
General Counsel
Secretary

*Partial Attendance

**Attendance by Topic (s)



UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

September 9, 1969

REGULATORY INFORMATION MEETING 367

3:05 p.m., Tuesday, September 9, 1969, Chairman's Conference Room, D. C.

1. Response to Question re Standards under 10 CFR Part 20

Discussed.

2. Mr. Price's September 8 Memorandum re Alternative for Limiting Radioactivity in Air and Water Effluents from Licensed Nuclear Powered Reactors

Additional information and rescheduling are requested. (ADRA-SECY)

3. Comparison of Radioactivity from Coal Fired Plants and Nuclear Plants

The Chairman requested preparation of a response. (ADRA-RPS-Rubin-SECY)

4. AEC-R 2/78 - Proposed Amendments to Parts 50 and 115 - Reporting of Schedule Status of Water-Cooled Nuclear Power Units

To be rescheduled. (SECY)

5. AEC-R 8/37 - Proposed Amendment to 10 CFR Part 20 - High Radiation Areas

Approved subject to Commissioner Ramey and Larson's concurrence. (RPS-SECY)

6. Mr. Price's September 8 Memorandum re Early Hearings on Site Suitability

To be rescheduled. (SECY)

W. B. McCool
Secretary

4:00 p.m.

PRESENT:

COMMISSIONERS:

Chairman Seaborg
Commissioner Ramey
Commissioner Johnson
Commissioner Thompson
Commissioner Larson

STAFF:

Mr. Price
Mr. Beck
Mr. Henderson
Mr. Rogers
Mr. English
Mr. Belter
Mr. Rubin
Mr. McCool
Mr. Schur*
Mr. Western*
Mr. McBride*
Mr. Yore*
Mr. Buck*
Mr. Biles*

DISTRIBUTION:

Commissioners
Dir/Regulation
General Manager
General Counsel
Secretary

*Attendance by Topic (s)

At 4:40 p.m. I met with General Naehuik Jung (President, Korea Electric Company), Chong Joo Kim (Vice President) and Hojoona Choi (Korean Embassy Counselor). They were accompanied to my office by Myron Kratzer and Bill Hill of DIA. Jung told me that his company has contracted with Westinghouse for the construction of a 600 Mw nuclear power reactor for operation in South Korea in 1974. He said that the power will be needed without fail at that time, and he is a little concerned that delays might be encountered which would lead to a very serious situation. He gave me a picture book of Korea, a temple rubbing (wall print), and a fine piece of Korean silk (for Mrs. Seaborg) as gifts.

Norman Ramsey called me to see if I knew whether President Nixon's directive on new construction would apply to the 200 Bev Accelerator; he said it would be disastrous if it did. I told him that we don't know yet but are worried. I said we have all the stops pulled out but may need Lee DuBridge's help. Ramsey said he would be glad to call DuBridge about it, but I told him that if this becomes necessary I will get in touch with him.

I sent a letter to Attorney General Mitchell (copy attached) expressing the Commission's appreciation for the assistance of Deputy Assistant Attorney General Carl Eardley in the favorable outcome of the litigation involving the RULISON shot.

Attached is a copy of my biweekly report to the White House.

Helen and I attended a reception in honor of Commissioner and Mrs. E. M. J. A. Sassen (European Communities) at the home of Mr. and Mrs. Curt Heidenreich (5602 Massachusetts Avenue). Among those present, besides the Heidenreichs and Sassens, were Commissioner and Mrs. Bill Johnson, Commissioner and Mrs. Clarence Larson, the Craig Hosmers, Mr. and Mrs. Richard B. Smith (Commissioner, SEC), Mr. and Mrs. Paul Rand Dixon (Chairman, FTC), Mr. and Mrs. Everette McIntyre (Commissioner, FTC), Mr. and Mrs. Hamer H. Budge (Chairman, SEC), Mr. and Mrs. Hugh Owens (Commissioner, SEC), Mr. and Mrs. Nelson Sievering, and Mrs. Myron Kratzer.

Wednesday, September 10, 1969 D.C.

Sigvard Eklund called me from Vienna. He said he just learned yesterday that I would be in Sweden next week and he suggested very strongly that I try to see Prime Minister Tage Erlander, Minister of Industry Krister Wickman, and Mrs. Alva Myrdal, who is in charge of disarmament in Geneva but is in Sweden at present; nothing has been done yet in Sweden with respect to the NPT or transfer of safeguards to the IAEA. He will call Torsten Gustafson in Lund and will tell him he has been in touch with me and ask his assistance. At Eklund's suggestion I agreed to write to Erlander, Wickman, and Mrs. Myrdal, asking to see them on these matters. Eklund mentioned that Erlander reaches retirement age the end of September, but he is very much interested in these matters; therefore, I should start by seeing him. He suggested that I start by mentioning the negotiations between Switzerland, U.S. and the IAEA for changing our bilateral into a trilateral agreement.

Commissioner Larson dropped in to see me. He wanted to express his views on the future of the gaseous diffusion plants preparatory to my meeting with McCracken, Schlesinger and Whitehead this Friday. He said that he favors, as the ultimate solution, the operation of the plants by a consortium of



UNITED STATES
ATOMIC ENERGY COMMISSION

WASHINGTON, D.C. 20545

RECD. BY DOE
NOV 06

SEP 9 1960

The Honorable John N. Mitchell
The Attorney General

Dear Mr. Mitchell:

As you may know, during the last week of August suits were instituted by several private parties in the Colorado Federal District Court seeking to enjoin an underground nuclear detonation planned by the Atomic Energy Commission for September 4 in connection with Project Rulison. This project, which is part of the Commission's program for peaceful uses of nuclear explosives, is a joint Government-industry experiment to study the economic and technical feasibility of using underground nuclear explosions to stimulate production of natural gas from low productivity gas bearing formations in the western part of Colorado.

Upon the filing of the injunction suits, we asked the Department of Justice to represent the Government's interests and Deputy Assistant Attorney General Carl Eardley of the Civil Division personally undertook that task. During the ensuing week, Mr. Eardley, in a virtual constant round of court appearances, successfully presented the Government's case - first to the District Court in a preliminary injunction hearing - and then to the Court of Appeals for the Tenth Circuit, which affirmed the lower court's favorable decision. Finally, Mr. Eardley prepared the papers opposing the plaintiffs' request for a stay of the Rulison detonation by the Supreme Court, a request denied by Mr. Justice Marshall on September 3.

We were, of course, highly pleased by the outcome of the litigation which allowed us to proceed with this important project without unwarranted delay. Our counsel tell me that this outcome was due in principal measure to the skill with which Mr. Eardley, working

The Honorable John N. Mitchell - 2 -

With the U. S. Attorney and our own staff, was able to marshal and effectively present the Government's case on exceedingly short notice.

I find it particularly impressive that, despite the brief time allowed for preparation, Mr. Dardley was able to present the Government's case not only as to the legal issues involved but also as to the elaborate safety precautions for the project, a subject involving treatment of complex technical matters. That he was notably successful in the latter regard is attested to by the statements in the trial judge's ruling regarding the extreme caution and care being exercised by the Government to protect against damage.

I wish personally to convey to you the Commission's appreciation for Mr. Dardley's fine representation and for the cooperative support of the U. S. Attorney in Denver.

Cordially,

ROBERT MANN I. SISKIN

Chairman

AEC BREVELY STATUS REPORT FOR SEPTEMBER 9, 1969

1. Chairman Seaberg plans to visit eight western European and Soviet Bloc countries from September 14 to October 3, in conjunction with his trip to head the U.S. delegation at the Thirteenth General Conference of the International Atomic Energy Agency in Vienna. His itinerary includes Stockholm, Zurich, Prague, Moscow, Leningrad, Budapest, Bucharest, and Lisbon. In Stockholm, he will participate in a symposium conducted by the Nobel Foundation. While in Rumania, he will open the AEC's "Atoms-In-Action" Nuclear Science Demonstration Center at Bucharest. He will meet with atomic energy officials in these countries and give several lectures on nuclear science.
2. Dr. Clarence E. Larson was sworn in and assumed his duties as a member of the Atomic Energy Commission on September 2.
3. Project Gulison, an experimental underground nuclear detonation aimed at stimulating natural gas flow in central Colorado, originally scheduled to be detonated on September 4, has been delayed on a day-to-day basis because of unfavorable wind directions. On September 8 it was rescheduled for September 10 at 5:00 p.m. EDT. There have been reports that demonstrators might attempt to interfere by staging a sit-in in the excluded area.
4. The first nuclear-powered submarine for oceanographic research, the NR-1, completed its initial sea trials in August. Capable of carrying a five-man crew and two scientists, the NR-1 is designed to operate on or near the ocean bottom for periods of time limited only by the provisions that can be carried on board. It will be able to explore an area of the ocean bottom several times as large as the United States and to perform studies and tapping of the ocean bottom, temperature, and currents for applications that would be significant for defense, science, and commerce.
5. The AEC-sponsored four-week workshop for faculty of traditionally Negro colleges and universities was held at Oak Ridge, Tennessee, during August. Arranged in cooperation with the Federal Interagency Committee on Education and attended by representatives from six institutions offering bachelor's degrees in engineering, the workshop enabled teachers and administrators from these schools to become better acquainted with AEC and

and other Federal programs for supporting education and research. As a result of discussions during the workshop, several projects involving AEC's participation will be attempted, including a cooperation education program supported through Oak Ridge, visits to the schools by mobile AEC lecture demonstration units, participation by an AEC mobile radioisotope laboratory in engineering courses during four-week visits to the six campuses, establishment of personal relationships between the faculty of these schools and AEC laboratory staff, and promotion of professorships supported by private corporations. The workshop is being followed by residencies at Oak Ridge for some of the attending representatives. The success of this workshop has resulted in consideration being given to holding one or two other workshops next summer.

6. Considerable progress has been made toward promoting state and private support and participation for AEC's traveling lecture demonstration program for high schools, called "This Atomic World." During the coming school year, educational institutions and public and private agencies (such as universities, state atomic development agencies, about 40 utilities, and business groups) in 16 states will join AEC in sponsoring this program of student assembly demonstrations and classroom lectures on the basic principles of nuclear energy and its uses in agriculture, industry, medicine, and research. Cooperative sponsors in the states recruit and pay the teacher-demonstrators who run the presentations, while AEC provides their specialized training and furnishes the demonstration equipment and trucks. Throughout the entire U.S., 25 "This Atomic World" units will visit about 3700 schools during the coming school year. Last year "This Atomic World" reached 2.2 million students in 2800 high schools. To date, more than 16 million students in 50 states have attended this lecture demonstration.
7. Detailed fire protection surveys of key AEC facilities are being arranged and will be conducted by industrial inspection firms under contract to AEC. These surveys are expected to cost about \$250,000 and will be similar to those used in determining industrial fire insurance rates.
8. The annual charge for leasing uranium from the AEC will be increased on November 1, 1960, from 6 1/2 to 7 1/2% of the value of the uranium, which reflects a general increase in the cost of money. Most of this leased uranium is used by utility companies as fuel in nuclear-powered generating plants.

- South Carolina will become the twenty-first state to assume part of the Federal Government's regulatory authority over the use of radioactive materials by an agreement between a state and the AEC. This arrangement becomes part of a general pattern, which is illustrated by item number 6 on North Dakota in the
9. AEC Biweekly Status Report for August 11, 1960.

utilities much like the Sporn proposal; however, since it is unrealistic to expect this to be possible immediately, he believes that we should make the minimum change--otherwise, an operational plan such as a government corporation might set a pattern which would be permanent like TVA and impossible to ever change. He thinks that we could finance the Cascade Improvement Program by seeking congressional authority for the Commission to raise money through the private market.

I had lunch at the All States Cafeteria with Julie Rubin and Stan Schneider. Afterward we walked around Lafayette Square and commented on the inefficiency and length of time it is taking to do all that construction work. I said we would not be able to walk through this park by next summer at this rate.

From 3 to 5 p.m. I attended a meeting of the Federal Council for Science and Technology in Room 208 of the Executive Office Building. Present were: Dr. Lionel Bernstein (VA), Dr. Paul Dembling (NASA), James Densmore (DOT), Donald Dunlop (Interior), David Eden (Commerce), Dr. Roger O. Egeberg (HEW), Harold B. Finger (HUD), Dr. Sidney Galler (Smithsonian), Miss Judith Glatzer (OEO), Hugh Loweth (BOB), Dr. W. D. Maclay (Agriculture), Dr. W. D. McElroy (NSF), Rodney Nichols (DOD), Dr. Sidney Passman (ACDA), Herman Pollack (State), Henry Ruth (Justice), all members or observers, and the following guests: Dr. Spofford English (AEC), Dr. Charles Falk and Dr. Louis Levin (NSF), Benson Gammon (NASA), O. A. Neumann (Commerce), Dr. Jesse Steinfeld and Dr. Ernest Tierkel (HEW), Dr. Edward Wenk, Jr. (Marine Sciences Council), James Currie, Kenneth Goodwin and Peter Rumsey (BOB), and from OST, Dr. Lee DuBridge, Eric Ward, Colonel Andrew Aines, Robert Barlow, David Beckler, Bernard Berger, Dr. John Buckley, Dr. Edward Burger and Dr. Donald King.

The meeting was opened by DuBridge. He gave a report on the meeting of the Environmental Quality Council at San Clemente. He described the concern over air pollution and mentioned Bill Lear's automobile developments, which include a steam turbo electric car and a gas turbine car. DuBridge pointed out that California has adopted stringent air pollution restrictions which, by 1972, will include limitations on the maximum number of grams of unburned hydrocarbons per mile of driving. Laurence Rockefeller made a report on behalf of the Citizens Advisory Committee. It was recommended that the President hold a White House conference on the environment in 1970 or 1971. A UN conference is planned for 1972. HUD Secretary George Romney reported on the work of the ad hoc committee that he represents which is concerned with the disposal of solid waste. DuBridge also reported on the status of the various legislative proposals regarding environmental quality, adding that he thought that the Jackson Bill may be the one that survives. He also mentioned the OST and BOB research and development crosscut review.

DuBridge also reported on his forthcoming three-week trip to Europe on which he will be accompanied by Phil Handler, Jerry Tape, Pat Haggerty, Lewis Branscomb, David Beckler, Herman Pollack, Norman Neureiter and others. There was also a brief report on the status of the Patent Committee reports.

DuBridge welcomed Bill McElroy and Roger Egeberg as new members of the Council. He announced the creation of a Council Advisory Committee that would help plan the agendas for the Council meetings.

DuBridge then went on to the agenda item concerning the establishment of an FCST ad hoc group to study the feasibility of the federal government helping state and local governments improve their scientific and technological

capability--it appears that this group would include essentially all the members of the FCST. McElroy described some NSF activities in this area. Eden described Department of Commerce activities, and Finger described some HUD programs.

I then gave a report on the programs and activities in the AEC. This was a general report in which I described our organization and budget, our programs in physical research, biological research, the applications of nuclear energy to space, our radioisotopes program, our nuclear power program, our Plowshare program and the problems in our nuclear weapons testing program.

Finger then reported on the status of the FCST study group on DOD/domestic agency research. I left at this point, and the meeting continued.

Around 4 p.m. I stepped out of the FCST meeting to take a call from Alaska Senator Ted Stevens who was leaving his office at 4:15 p.m. for Alaska. The Senator wanted to know whether we were postponing the Amchitka shot (MILROW) as a result of the request from Senator Magnuson. If we were, he and Senator Jackson wanted to join in Senator Magnuson's request, but they wouldn't do so if we weren't planning to grant the request. I said we weren't planning to grant the request because it is impossible to do so at this time. I said I had called Magnuson's office in an attempt to discuss this with him but had learned that he was in Europe and would be there until September 29; I told Senator Magnuson's assistant, Mr. Trecker, that we would discuss the situation with him before we detonated the large shot, but that won't be for some time yet, so there will be plenty of time to do this.

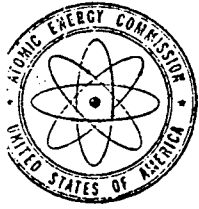
At 5:10 p.m. I presided over Information Meeting 944 (notes attached). In executive session we approved extending the Mutual Defense Agreement for Cooperation with the U.K. for five years and noted that the State Department had already cleared a letter related to this extension. The U.K. position on this agreement and letter is unknown.

The Commission approved the MANDREL underground nuclear test program for the second quarter (MANDREL II). Commissioner Johnson noted an unusually large number of tests deferred from the first quarter, which would make unrealistic the total number scheduled for the second quarter.

Action was approved to provide to Romania on indefinite loan the Cobalt-60 source in the Atoms-at-Work exhibit that I will be dedicating on October 1 in Bucharest. For tactical reasons, the loan will officially be for one year subject to consideration for renewal.

The revised aide memoire to the U.K. on handling gas centrifuge technology was reviewed and approved for parallel informal discussion with the JCAE and the U.K. During the discussion Commissioner Ramey expressed concern over reported information that the U.S. inspection team, during their visit to the U.K. earlier this year, had obtained information of use to the U.S. program which we intend to use. Mr. Ramey considered this a breach of ethics which would have to be carefully considered.

The RULISON shot was detonated on schedule at 5 p.m. EDT. Subsequent reports up to about one and one-half hours after the shot indicated all results were as predicted, with no leakage detected and no damage to property or injuries to personnel reported. The Richter scale showed a seismic signal of 5.5. We announced today that the JORUM shot would take place next Tuesday, September



UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

UNCL. BY DOE
NOV 86

COPY NO. 3
September 10, 1969

INFORMATION MEETING 944

8:10 p.m., Wednesday, September 10, 1969, Chairman's Conference Room, D. C.

1. Invitation to Senator Gravel re Amchitka Event

To be checked, (Congr. - AGMMA)

2. Executive Session

Staff may proceed. (AGMO)

3. AEC 1309/13 - Mandrel II Underground Nuclear Test Program

Approved. (AGMMA)

4. AEC 850/10 - Availability of Highly Enriched Uranium for Power Reactor Applications Under Toll Enriching

To be discussed with the Joint Committee staff and rescheduled.
(AGMIA-Congr.)

5. AEC 1251/9 - Limiting Foreign Access to Unclassified Technical Information

Approved. (AGMIA-RDT)

6. AEC 809/141 - Indefinite Loan of Cobalt-60 Facility to Romania

Approved with a limitation. (AGMIA)

7. AEC 1044/26 - ANS Plowshare Symposium - Request for NTS Tour

Approved. (PNE-AGMIA)

8. AEC 89/170 - Polish National: Proposed Participation at BNL and Brief Visit to ANL

Approved. (AGMIA)

9. AEC 901/481 - Proposed Visit of Soviet National to LASL

Approved. (AGMIA)

10. Plans for 13th General Conference of the IAEA (See DIA September 10 Hand-out)

The Chairman will call the Department of State re the U.S. contribution if possible. (AGMIA-Rubin)

11. AEC 1083/142 - Proposed U.S. Offer to Host IAEA Symposium in 1970

Approved. A topical outline is requested. (AGMIA)

12. AEC 751/424 - Ceiling Quantities of Enriched Uranium Available to Euratom

Approved. (AGMIA)

13. AEC 610/186 - Revised Aide Memoire to the United Kingdom

Staff may proceed. The question raised in the discussion is to be clarified. (AGMIA-GC)

14. AEC 29/149 - Proposed Response to GAC Letter

Changes are requested and further Commissioners' comments will be addressed to staff. (DGM-SECY)

15. AEC 688/92 - Staff Actions Taken to Date with Regard to LRL Publication

Noted.

16. Undated Memorandum from OEP re High Heels-69

Commissioner Larson is designated. (Griffin-CONS-SECY)

W. B. McCool
Secretary

6:40 p.m.

PRESENT:

COMMISSIONERS:

Chairman Seaborg
Commissioner Ramey
Commissioner Johnson
Commissioner Larson

STAFF:

Mr. Hollingsworth
Mr. Bloch
Mr. Hennessey
Mr. Ryan
Mr. Rubin
Mr. Rosen
Mr. Fremling
Mr. McCool
Mr. Erlewine*
Mr. Kratzer*
Gen. Giller*
Mr. Giambusso*
Mr. Totter*
Mr. Hagedorn*
Mr. Gerber*
Mr. Parks*
Mr. Barr*

DISTRIBUTION:

Commissioners
General Manager
General Counsel
Secretary

*Attendance by Topic (s)

15. (This was the shot that Commissioner Tape and I discussed with Kissinger in his office on April 24 to get Presidential approval.)

I sent a letter to Secretary Rogers (copy attached) telling him about Eklund's urging me to see Swedish officials concerning the transfer of safeguards to IAEA.

I received a memorandum from Kissinger requesting a report on the number of contract personnel employed overseas by the AEC on August 31, 1969 (copy attached).

Attached is a copy of a memorandum suggesting items for possible use in the daily report to the President.

Thursday, September 11, 1969 - D.C. - Burlington, Vermont - D.C.

From 9:20 to 11 a.m. I attended a meeting of the Space Task Group in the Vice President's Conference Room (Room 275) in the Executive Office Building.

Just before the meeting I talked to Lee DuBridge about the presidential directive halting new construction and pointed out that, literally interpreted, this could apply to the 200 Bev Accelerator since no large contracts have been let yet. DuBridge was interested to learn this and indicated that he might look into it with the view of trying to find a way of excluding the 200 Bev Accelerator from this directive.

Those present at the Space Task Group meeting were: Vice President Agnew, Dr. Thomas O. Paine (NASA), Dr. Robert C. Seamans, Jr. (Air Force), U. Alexis Johnson (State), Lee DuBridge, Bob Mayo (BOB), Russell C. Drew (OST), Jerome B. Wolff (Vice President's staff), plus Colonel William A. Anders (NASC), Herman Pollack (State), Homer E. Newell (NASA), James R. Schlesinger, Donald E. Crabill (BOB), Milton Klein (AEC-NASA), and I, Nevin Palley (DOD), Robert F. Packard (State), Colonel James R. Brickel and Captain Winfred E. Berg of NASC.

The Vice President opened the meeting by referring to the revised Space Task Group (STG) report that had been prepared by Drew on the basis of the conclusions reached at the meeting held last Wednesday at Newport Beach, California. He commended Drew on a good job in preparing the revised report. He apologized for being late for the meeting, saying he had met with some of the Presidential staff (Flanigan, DuBridge, Ehrlichman and others) who had wanted to comment on the STG report. They wanted to eliminate Option A (the maximum program limited only by technology) and claimed that they represent the views of the President. DuBridge and Mayo spoke generally in favor of eliminating Option A, while Paine opposed this action. I suggested that a compromise might be to represent Option A and Option E (the minimal program that eliminates the manned space program entirely) by dotted lines on the diagram (Figure 1) and to relabel Options B, C and D. Agnew liked this suggestion and during the course of the meeting he checked with the White House and found that it was acceptable to them. On this basis it was decided to represent the old Options A and E with dotted lines and to replace the old Options B, C, and D as Numbers 1, 2 and 3. I also pointed out the desirability of using different labels for the DOD options so that they wouldn't be confused with the NASA options; this suggestion was accepted.

September 10, 1969

Dear Bill:

I received a phone call this morning from Sigvard Eklund, a Swedish national, who is serving as Director General of the International Atomic Energy Agency in Vienna. He had just learned about my impending visit to Stockholm next week and urged me in the strongest terms to try to meet with Prime Minister Tage Erlander of Sweden, and also with Minister for Industry Wickman and Mrs. Myrdal, in order to explore with them Swedish plans with respect to the Non-Proliferation Treaty and with respect to transfer to the International Atomic Energy Agency of safeguards now under the U.S.-Swedish bilateral Agreement for Cooperation Concerning Civil Uses of Atomic Energy.

I believe Eklund was motivated to do this because of my Swedish background and by the fact that I had seen Prime Minister Erlander on most of my previous visits to Sweden. I told Eklund that I would be happy to try to meet his request.

Cordially,

(Signed) Glenn T. Seaborg

Glenn T. Seaborg

The Honorable William P. Rogers
Secretary of State

GTS:MJ
Gen. Files
cc: Mr. Kratzer

UNCL. BY DOS
NOV 86

THE WHITE HOUSE
WASHINGTON

September 10, 1969


MEMORANDUM FOR

THE SECRETARY OF STATE
THE SECRETARY OF DEFENSE
THE SECRETARY OF AGRICULTURE
THE SECRETARY OF HEALTH, EDUCATION
AND WELFARE
THE DIRECTOR OF THE AGENCY FOR
INTERNATIONAL DEVELOPMENT
THE DIRECTOR OF THE PEACE CORPS
THE DIRECTOR OF THE UNITED STATES
INFORMATION AGENCY
→ THE CHAIRMAN OF THE ATOMIC ENERGY
COMMISSION
THE DIRECTOR OF THE NATIONAL AERONAUTICS
AND SPACE ADMINISTRATION
THE DIRECTOR OF THE NATIONAL SCIENCE
FOUNDATION
THE SECRETARY OF THE SMITHSONIAN
INSTITUTION

SUBJECT: Contract Personnel Employed Overseas by the U.S.
Government

The President has requested a report on the number of contract personnel employed overseas by the United States Government on August 31, 1969. He would like each agency's report to be submitted by the close of business September 12.

In giving data for your agency, please show separate totals by country for Americans and foreign nationals. The totals should cover contract employees hired both directly and indirectly.


Henry A. Kissinger

September 10, 1969

Mr. Albert Toner
Staff Assistant
The White House

Dear Mr. Toner:

The following item is submitted for your possible use in the daily report to the President.

Favorable weather conditions for Project Rubicon were observed on the evening of September 9 and the morning of September 10. Preparation for its execution at 5:00 p.m. EDT are proceeding subject to a final weather check in early afternoon.

A decision has been made to proceed with Project Jorum by a public announcement on September 10 for a planned execution on September 16. This will be a high yield test in the 1 megaton range at our Nevada Test Site at Las Vegas. Opposition to these high yield tests in Nevada from the Howard Hughes Organization has been extensive.

Activity for the execution of the high yield test on Amchitka is proceeding with the device scheduled to go down hole on September 12. A public announcement prior to the target date for this event on October 1 will be released sometime after September 17 with the minimum lead time required for notification of all organizations concerned.

Sincerely,

(Sgd.) Julius H. Rubin
Julius H. Rubin
Special Assistant
to the Chairman

cc: Thomas Whitford

Chairman Seaborg
J. Bloom
H. Gearin ←

The Vice President then turned to DuBridge and suggested that we be given a briefing on the revised STG report, which might also serve to some extent as a dry run for the briefing of the President. DuBridge asked Drew to do this; Drew, with the help of slides, made a brief summary of the revised STG report.

Schlesinger raised the question of whether it might not interfere with our international objectives to mention the national security aspects of the space program. Johnson tended to agree that this might be deleted, while Seamans spoke in favor of retaining it. Later in the meeting it was decided to keep the reference to the national security aspects of the space program in the STG report, with added language to make it clear that NASA and DOD were cooperating.

I asked that the place of NERVA in the options be defined, and there was general agreement that a program for the continuing development of NERVA was considered to be present in all options.

At this point the Vice President informed us that he would have to leave as he was scheduled to attend the services for Senator Dirksen in Illinois. He praised the STG and its staff for a job well done. He said he hoped that the presentation to the President could be made on September 16. He then turned to the question of the public relations of the report. There was general agreement that the report should be put into a form where it could be released to the public. DuBridge indicated that this might mean a careful review of the DOD portion of the report. It was also suggested that the recommendations and conclusions be removed from the back to the front of the report in order to make them more noticeable and acceptable. Agnew indicated that we probably should have a prepared press release ready at the time of the meeting with the President. DuBridge recommended that the release be made public immediately after the meeting with the President so that the President might have the benefit of public reaction to it before making a choice of options, which might take place some weeks later.

Agnew suggested that there might be a news conference involving the members of the STG immediately after the meeting with the President. It was suggested that this might be an occasion to call the presence of Colonel Anders to the attention of the press. Anders was sworn in as Executive Secretary of the Space Council on September 2, but this didn't create much attention. Agnew suggested that the revised statement be prepared in time to send it to the President before the meeting on September 16. He also suggested that the STG members shouldn't publicly express a preference between the various options. It was also pointed out that the astronauts would appear before Congress on the 16th, which might make this an appropriate date for the meeting with the President.

The Vice President left at this point and the discussion continued as to the method of release of the report and the nature of the press conference. It was agreed that the letters of the private Citizens Advisory group should not be released to the press. Wolff recalled at this point that Herb Klein had indicated to him that he doesn't want the report released to the press at the time of the meeting with the President--he wanted this to be done at the time that the President has made his decision, which might be some weeks later. This raised a question as to whether the press conference should be held immediately after the meeting with the President; the consensus still seemed to be that it would be better to do so, but the decision, of course, should be up to the President, taking into account Klein's view.

Paine suggested that the President's announcement of his decision as to the choice of options might be at some special occasion and raised the possibility of the President doing this during a visit to the Manned Spacecraft Center in Houston. I pointed out that whether or not this was wise would be dependent on which option the President chose.

It was decided that the report to the President at the meeting with the President on September 16 (or whatever date the President chooses for this meeting) should be done by one person, namely Drew, rather than having it done by all the members of the STG. I pointed out that I would be out of town at the time of the meeting. It was decided that in the cases where the principal couldn't attend the meeting, the alternate to the principal would attend. I will be represented by Milton Klein.

I had lunch in the Commissioner's Dining Room with Justin Bloom.

I sent a letter to Elliot Richardson forwarding an analysis of Project STURTEVANT and asking that the Under Secretaries study the proposal.

I sent a letter to Peter telling him that he would be receiving a set of the Encyclopaedia Britannica, which I received for some writing I did for them.

At 2:40 p.m. Stan Schneider and I left Andrews Air Force Base on Convair No. 42815, piloted by Major J. W. Mitchell with co-pilot Major R. F. Robel. We arrived at the Burlington (Vermont) International Airport at 4:10 p.m. We were met by Cecil King and Dr. Albert Crowell (Chairman of the Physics Department, University of Vermont). Dr. Crowell drove us directly to the Physics Building where I gave my lecture on "New Outlook for the Transuranium Elements" at 4:30 p.m. During the ride to the campus we discussed some history and facts about the University of Vermont.

I attended a reception at President Lyman Rowell's house and after staying for a few minutes I left for the University's Roy L. Patrick Memorial Gymnasium to participate in a press conference to be televised by Vermont Educational Television.

The press conference began at 7 p.m. On the panel with me were Commissioners Thompson and Ramey. The moderator was Al Molten, an assistant to Governor Deane Davis. Questions were asked by members of the press concerning the Price-Anderson legislation, thermal effects, tritium release, the effort of Minnesota to set their own effluent standards, etc.

Following the press conference I attended a dinner given by Governor Davis. Others present at the dinner included Mrs. Davis, Senator and Mrs. George Aiken, President and Mrs. Rowell and Commissioner Ramey.

After the dinner I returned to the gymnasium to give my evening talk "Nuclear Power and the Environment - A Perspective." Governor Davis presided over the meeting (agenda attached) and introduced Senator Aiken who introduced me. A crowd estimated to be about 800 people was present for my talk which was well received.

We left Burlington International Airport about 10:15 p.m. and arrived at Andrews Air Force Base at 11:40 p.m. Others on the plane with us were Commissioners Ramey and Thompson, Senator and Mrs. Aiken, Charles Weaver, Steve Terry, Ed Bauser, John Harris, Milt Shaw, Peter Morris, Joe Hennessey, Hal Price and Les Rogers.

PROGRAM

A Report

NUCLEAR POWER AND THE ENVIRONMENT

*Roy L. Patrick Memorial Gymnasium
University of Vermont, Burlington
September 11, 1969*

Afternoon Program 2 p.m.
The Honorable Deane C. Davis, Governor of Vermont, Presiding

OPENING REMARKS

Lyman Rowell, President, University of Vermont
Governor Davis
The Honorable George C. Aiken, United States Senator

Understanding Nuclear Power Commissioner James T. Ramey
U.S. Atomic Energy Commission

Nuclear Power, Safety and the Environment
Commissioner Theos J. Thompson
U.S. Atomic Energy Commission

Early Effects of Radiation Victor Bond, M.D.
Brookhaven National Laboratory

Effects of Long-Term Low-Level Radiation John Storer, M.D.
Oak Ridge National Laboratory

Genetic Effects of Radiation Dr. William L. Russell
Oak Ridge National Laboratory

Panel Discussion Representatives of the AEC and represent-
atives of conservation groups in Vermont

Evening Program 8:30 p.m.
Governor Davis, Presiding

Introduction of Speaker by Senator Aiken

Nuclear Power and the Environment—A Perspective
Chairman Glenn T. Seaborg,
U.S. Atomic Energy Commission

Friday, September 12, 1969 - D.C.

From 9 to 10:30 a.m. I attended a meeting on support for academic science at the Executive Office Building (Room 213). Present were: Dr. Lee DuBridge, Dr. John S. Foster, Jr. (DOD), Dr. William D. McElroy (NSF), Dr. Robert Q. Marston (NIH), Dr. Thomas O. Paine (Administrator, NASA), Donald M. MacArthur (DOD), and Eric Ward, Bob Barlow and David Beckler (OST).

DuBridge said the purpose of the meeting was to try to coordinate action between agencies so that we could maximize support for academic science despite the present and impending budget stringencies. In the course of the meeting he asked each of us to report on the situation in our agencies. He said that the Office of Science and Technology is working with the BOB to look at the R&D budgets for the various agencies with the plan to coordinate this overview with the various congressional committees. He said the question facing us is to determine how each agency can maintain its academic science budget at a reasonable level.

Marston reported on the situation at NIH, saying that although they would have to close 19 out of 93 research centers and cut the continuing research support awards by 20%, he does not think the situation is so bad as the recent furor would indicate.

Foster described the situation in the Department of Defense. He said they are applying the cuts equally to their inside laboratories and outside contracts.

McElroy suggested that what is really needed is for DuBridge to see the President and convince him of the importance of the support of academic science. Foster said that the situation is so serious that there is need for an announcement, perhaps from DuBridge, that the situation calls for crisis management in the universities. I agreed with Foster and warned DuBridge that academic scientists throughout the country are looking to him to bail them out of trouble and that he faces an impossible situation.

DuBridge said we should assemble all of our arguments for the support of academic science and then make a case in the BOB and Congress. He said he doesn't think we have to worry so much about the BOB as we do about Congress. I disagreed with this, saying that we have found out trouble always originates with the BOB which cuts our suggested academic science budgets. Paine and McElroy agreed with me. I said I thought that the congressional cut wouldn't be much larger even if the BOB had approved a higher budget to go to Congress, and again Paine and McElroy agreed. Foster identified as one source of our problem the campus rioting and there was some discussion of this situation.

DuBridge returned to the discussion of the crisis management situation within the Federal Government. After some discussion it was decided that NSF would manage a kind of overall interagency coordination. Each agency would supply material, listing its support picture by university. It was decided that OST will prepare a memo as to how this coordination will come about. I suggested that even with coordination by NSF there should be involvement of the OST in meetings like today's. Foster again suggested that this whole procedure be tied in with an announcement by DuBridge of the crisis situation, but, after some discussion, there was no consensus on this point.

I then explained the situation in the AEC, our budgeting process and the cuts by the BOB as a result of the unrealistic ceiling imposed by them. I said that this is now leading to substantial cuts in our research contracts, which

we are effecting mainly by terminatng old contracts rather than reducing new contracts. I also said that for the first time it has become necessary to let people go from the National Laboratories.

Paine then described the situation in NASA which is equally difficult. He suggested that maybe the President should set up a blue ribbon commission to assess the situation, a sort of commission to study the science and technology base of the U.S. and its relation to national strength.

DuBridge agreed to this, but after some discussion he came to the conclusion that this should be done by the task force on science and technology which is one of the many being set up by Burns. He also concluded that it couldn't be done in time to affect the FY 1971 budget; it looks as though it might take a year or so before such a report could be forthcoming. DuBridge concluded the meeting by suggesting that we get together now and then to discuss these problems of academic science, our strategy in Congress in solving them, etc.

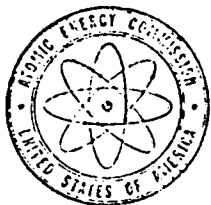
At 11:45 a.m. I presided over Information Meeting 945 (notes attached). We decided to allow the news media to be aboard the aircraft carrier PRINCETON and to fly over Amchitka Island by helicopter at the time of the MILROW test. We also approved other public information aspects of the test. Approval has not yet been received from the White House even though this is the deadline date for the device to go down hole if the test is to be executed with a start date of October 1.

I had lunch in the office with Julie Rubin.

From 4 to 5:50 p.m. I met with Peter Flanigan, Tom Whitehead, Paul McCracken and Tom Moore in Flanigan's office. Flanigan said the main reason for the meeting was to discuss the President's decision on the future of the gaseous diffusion plants; however, before discussing this, he wanted to talk about the Pitzer Panel report and its possible release. We agreed that this might be released by the AEC in the context of a broader release that explained the whole situation. I also brought up the need for a go-ahead on MILROW which led Flanigan to call Colonel Haig to learn its status. He learned that it is going to be up for decision by the President on Saturday or Monday. I emphasized the need for a decision so the device could go down the hole within a day or so to meet the October 1 readiness date for firing. We agreed that the Pitzer Panel expanded report should be released before MILROW is fired.

We then went on to talk about the President's decision on the future of the gaseous diffusion plants. The President has decided that the plants should be operated by a department within the AEC on a basis of reapplication of revenues to expenses and with full costs, such as interest on equity payments in lieu of taxes, etc., to be applied to the toll enrichment charge. I indicated that there are many complexities to this proposal, and that I would want the people in AEC to study it in concert with Flanigan's staff before deciding on the value of the equity, the interest rate, etc. Flanigan said he realizes that Hosmer will be disappointed in this decision. I indicated that I think Holifield will also be opposed to this resolution to the problem if it led to substantial increase of the toll enrichment charge which is now \$26 per kilogram.

At 6 p.m. I presided over Information Meeting 946 (notes attached). We discussed Flanigan's request for preparation of an AEC release on MILROW, and I described my meeting with Flanigan et. al. on the gaseous diffusion matter.



UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

COPY-NO. 3
September 12, 1969

INFORMATION MEETING 945

11:45 a.m., Friday, September 12, 1969, Chairman's Conference Room, D. C.

1. Commissioners' Luncheon Meeting with NASA Representatives

To be scheduled. (SECY)

2. Space Task Group Report to the President

The Chairman reported briefly on the meeting yesterday at which the draft report was discussed and said copies of the draft will be circulated. Revisions in the report as a result of yesterday's meeting are in process looking to a briefing for the President on Tuesday, September 16. Mr. Klein will attend in the Chairman's absence. (SNS-SECY)

3. Chairman's Meeting this Morning with Dr. DuBridge, President's Science Adviser, et. al., re Crisis in Support of Academic Science

Information from the Agencies involved for coordination by NSF and OST will be requested. (AGMR&D-NET)

4. Status of Milrow Approval

Noted. (AGMMA)

5. Chairman's September 11 Letter to Under Secretary Elliot Richardson re Project Sturtevant

Noted.

6. Public Information Meeting in Bennington, Vermont

The Chairman noted the request from Governor Davis for a small group from the AEC to attend headed by a Commissioner. (AGM)

7. September 15 Newsweek Article re USSR Testing

8. September 10 ACRS Letters re Public Service Electric and Gas Company - Newbold Island Site and Report on Dresden Nuclear Power Station Unit 2

Noted. (SECY)

9. Schedule for the Jorum Event, September 16, 1969

Noted.

10. Exemption of the 200 BEV Project from Construction Cut-back

The Chairman said he had discussed this with Dr. DuBridge this morning. Commissioners Johnson and Thompson will call Dr. DuBridge next week. (Helfrich-Rosen)

11. BOB Guidance on the Construction Cut-back Directive

The General Manager said he hoped some guidance would be received soon.

12. September 9 Letter from Donald D. Glower, Ohio State University, re Development of Nuclear Technology

Commissioner Johnson will respond. (Helfrich)

13. September 8 Letter from FCST re Nomination for AEC Member on Committee on Academic Sciences and Engineering

Commissioner Thompson is designated. (AGMR&D-SECY)

14. Mr. Kratzer's September 11 Memorandum re Exchange of Notes with U. K. re Mutual Defense Agreement

Commissioner Thompson said he has requested Department of State staff to discuss with Secretary of State Rogers. (Rosen-AGMIA-SECY)

15. Agenda for the Week of September 15, 1969

Approved. (SECY)

16. AEC 780/45 - AEC Citation Awards

Noted. (SECY)

17. NTS Events (See General Giller's September 11 Memorandum)

Noted. (AGMMA)

18. September 11 Letter from Senator Inouye, Hawaii, re Testing at Amchitka

The Chairman requested an early response. A telephone call to the Senator may also be desirable. (AGMMA-Congr. Helfrich-SECY)

19. AEC 1309/14 - Milrow Announcement and Addition to Public Information Plan

Approved with revisions and subject to Commissioner Ramey's concurrence. (AGMMA-PI-Fremling-SECY)

20. Distribution of Rocky Flats Report

Noted. (SECY)

21. September 8 Letter from Senator Muskie re Hearings on S. 2005, the Resource Recovery Act of 1969, October 3, 1969

Commissioner Thompson will plan to testify. A staff response to the letter is requested. (Congr. -Rosen)

22. Chairman's 4:45 p. m. Meeting today at the White House re Diffusion Plant Disposition

W. B. McCool
Secretary

12:50 p. m.

PRESENT:

COMMISSIONERS:

Chairman Seaborg
Commissioner Johnson
Commissioner Thompson
Commissioner Larson

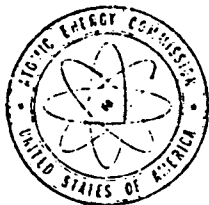
STAFF:

Mr. Hollingsworth
Mr. Bloch
Mr. Bloom
Mr. Ryan
Mr. Fremling
Mr. Ferguson
Mr. McCool
Mr. Fouchard*
Gen. Giller*
Mr. Rosen*

DISTRIBUTION:

Commissioners
General Manager
General Counsel
Secretary

*Attendance by Topic (s)



UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

COPY NO. 80
September 12, 1969

INFORMATION MEETING 946

6:00 p. m., Friday, September 12, 1969, Chairman's Conference Room, D. C.

1. Announcement re Minute Steak Event

Approved, (PI-AGMMA)

2. Chairman's Discussions Today with White Staff staff re Presidential Approval of the Milrow Event

Staff follow-up with Mr. Whitehead and Col. Hague on Monday is requested. (AGM-AGMMA)

3. AEC Study re Test Effects

The Chairman discussed the request by Mr. Peter Flanigan, Assistant to the President, for preparation of an AEC release for issuance prior to Milrow. Staff is to coordinate with Messrs. Flanigan and Whitehead. (AGM-PI-AGMMA)

4. Planning for the Future of AEC's Uranium Enrichment Complex

The Chairman discussed the President's decision and the meeting with White House staff today to review with them the necessary follow-on action by the AEC. Clarification of the question of amendment of the Atomic Energy Act and staff analysis of the plan is requested. Messrs. Flanigan and Moore, White House staff, are the liaison on this matter and Mr. Flanigan has informed Congressman Craig Hosmer and will call Chairman Chet Holifield, JCAE. (AGM-AGMP&P-GC)

5. General Manager's Report on the JCAE Hearings on the Omnibus Bill Today

W. B. McCool
Secretary

6:30 p. m.

PRESENT:

COMMISSIONERS:

Chairman Seaborg
Commissioner Johnson
Commissioner Thompson
Commissioner Larson

STAFF:

Mr. Hollingsworth
Mr. Bloch
Mr. Rubin
Mr. Ryan
Mr. Fremling
Mr. Quinn
Mr. McCool

DISTRIBUTION:

Commissioners
General Manager
General Counsel
Secretary

I sent letters to Prime Minister Erlander (copy attached), Minister Wickman and Mrs. Myrdal as suggested by Eklund on Wednesday.

I sent comments to the GAC on their report of the 109th meeting on July 29-31 at NRTS (copy attached).

I replied to Senator Magnuson's letter (copy attached on September 3) regarding his request to postpone the MILROW test (copy attached).

I sent a letter to the President informing him that the AEC wishes to grant the Enrico Fermi Award for 1969 to Dr. Walter H. Zinn (copy without enclosure attached).

I sent a letter to Budget Director Mayo (copy without enclosures attached) submitting budget estimates for FY 1971.

Saturday, September 13, 1969 - Washington - Stockholm

I flew from Dulles Airport to J. F. Kennedy Airport on TWA Flight No. 52, leaving at 7:15 a.m. and arriving at 8:15. I then left New York on TWA Flight No. 702 at 10:15, and arrived at the London Heathrow Airport at 9:15 p.m. Here I was met by William L. R. Rice (the USAEC Scientific Representative in London) who accompanied me on a bus to the European Airways terminal. Rice stayed with me until it was time to board European Airways Flight No. 760, which left at 11:15 p.m. and arrived in Stockholm (Arlanda Airport) at 1:15 a.m. Sunday morning. I was met by Carl-Göran Hedén of the Karolinska Institute, who drove me to Södergarn, the Conference mansion, on the island of Lidingö. Hedén, who is a member of the Swedish Academy of Engineering Sciences and the Executive Committee of the International Council of Scientific Unions, is serving as secretary of the session at which I will speak on Wednesday morning. I checked into room 28.

Sunday, September 14, 1969 - Stockholm

I had breakfast buffet style in Matsaal, the restaurant, with M. D. Millionshchikov (Vice President, U.S.S.R. Academy of Sciences), Igor G. Pochitalin, his assistant, and Vladimir A. Engelhardt (the eminent Soviet biologist). I told them that I would not be able to get to Leningrad in time for Flerov's Symposium on the Transmendelevium Elements on Thursday, September 25, because of a poor plane connection in Moscow. Pochitalin said he would see if he could find a better connection.

I rode with Stig Eriksson, an Embassy driver, to Skansen for our traditional family visit to Laxbrostugan. I met Karl and Jenny Adolfsson, Bengt and Britta Adolfsson, and Karl and Monica Tersmeden in the parking lot. We walked to Laxbrostugan where we joined the other relatives. There were 48 of us altogether. The group consisted of Karl and Jenny Adolfsson; Bengt and Britta Adolfsson; Siv and Tomas (3-1/3 years) Lindkvist; Gösta and Ingrid Berglund; Hans and Gun Grill, Jimmy (9 years) and Helen (5 years) Grill; Irene and Gösta Adolfsson, Eva (10 years) and Lena (8 years) Adolfsson; Olof and Eivor Bloom and Per (22 years), Berit (15 years) and Anders (10 years) Bloom; Tora and Eric Bäcklin; Anita (Bloom) and Jan Erik Gustafsson (married a year ago today); Mona (Möller) Forssling with Carina (10 years) and Birgitta (8 years) Forssling; Sven and Ulla-Britt Österberg with Eva (11 years), Karin (8 years) Österberg; Timo and Inga Lindas with Mats (6 years), Johan (5 years) and Sara

September 12, 1969

Honorable Tage Erlander
Prime Minister of Sweden
Stockholm, Sweden

Dear Mr. Prime Minister:

I shall be visiting Sweden next week (that is, the week of September 13) in order to attend and participate in the Nobel Foundation Symposium on "The Place of Value in a World of Facts," to be held at SOLNBERGSKAM, outside of Stockholm.

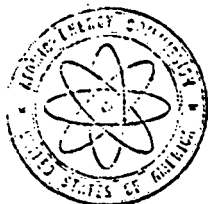
I would like, if possible, to meet with you at that time, as I have on a number of my previous visits to Stockholm.

I would like particularly to discuss with you our negotiations on the transfer of the safeguards for the U.S.-Swedish Agreement for Cooperation Concerning Civil Uses of Atomic Energy to the International Atomic Energy Agency, and also to discuss with you Sweden's plans with respect to adherence to the Non-Proliferation Treaty.

Respectfully yours,

(Signed) Glenn T. Seaborg

Glenn T. Seaborg



UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

SEP 12 1969

Mr. Howard G. Vesper, Chairman
General Advisory Committee to the
U. S. Atomic Energy Commission

Dear Howard:

We have the following comments on your letter of July 31, 1969, reporting on the 10th Meeting of the General Advisory Committee at KRIS on July 29, 30 and 31.

Idaho Nuclear Corporation Presentation

The Commission notes with satisfaction the GAC's favorable impressions of Idaho Nuclear's work in the areas of EER, AER and chemical processing of fuels as well as their statement of the importance of the reactor safety program.

Argonne National Laboratory Program in Support of MAFER

It is extremely gratifying to receive the Committee's comments on the Idaho facilities being operated in support of the MAFER program, notably the EER-II and ZPPR. In particular, the recognition of the continuing importance of these facilities and the associated technical support to the success of the fast breeder effort is appreciated. The Commission is particularly pleased that the GAC recognizes that the EER-II was originally designed as a demonstration reactor and that significant modifications were necessary, and will continue to be required, in order to achieve the maximum benefit from this reactor as a fast flux test facility.

LOFT

We share the concerns of the Committee regarding the problems and delays that have been encountered in the LOFT program. It is expected, however, that recent management changes coupled with priority technical support for this project should significantly improve this situation.

Advanced Test Reactor

The Commission notes with pleasure the favorable comments on the ATR and the commendation regarding the favorable planning for this facility to assure its availability to contribute to the materials program in our reactor development activities.

Naval Reactors Facility

We were gratified to learn of the Committee's impressions of the Naval Reactors Program. The Commission believes that this program is a vital part of the Nation's national defense program.

Visits by Reactors Subcommittee to Various EMWR Locations

The Commission is pleased that the visit by the Reactors Subcommittee to various EMWR locations was of interest. We note that a visit to the General Atomics heavy water power reactor facilities is planned prior to the next low meeting and that a visit to review the EMWR has already taken place. The interim observations by the Committee supporting the development of the EMWR concept were of particular interest and we look forward to the more extensive report concerning this visit and the Committee's appraisal of the relative priorities assigned to advanced reactor development programs.

We agree with the suggested need to continue to evaluate the uranium supply prospects and the realistic timing for introducing the fast breeder into the commercial market. As suggested we plan to continue these studies to assure that the reactor development programs will be timely and consistent with national needs. We would welcome the opportunity to meet and discuss the subject in detail to determine if additional specific efforts are needed.

Rocky Plains Plant

Positive action has been taken to review fire and other safety hazards in the AEC system. On June 26, 1969, the General Manager approved a plan to provide for an independent commercial fire insurance inspection of key AEC weapons and production facilities to assist the AEC in attaining and maintaining minimum fire protection at these locations. Initial orientation meetings were held on July 1, 1969, with Factory Insurance Association (FIA) and Factory Mutual Research Corporation (FMRC). Proposals from both companies have been processed and contracts signed with both.

The initial plan envisions an in-depth survey by both companies at Rocky Plains. All other production plants and computer installations in the weapons laboratories will be surveyed by one of the two companies. This matter is being pursued expeditiously, but no date for completion of the survey has been established.

Fire and safety criteria for new construction at Rocky Plains have been recommended and, where appropriate, changes have been implemented.

Mr. Howard G. Vesper

-3-

AEC Laboratories

We look forward to further discussions with you of your recommendations regarding AEC laboratories.

University of California Relationship with Weapons Laboratories

We feel very strongly that the present arrangement of the nuclear weapons laboratories is most effective, and it is vital that the present arrangement be continued.

PSAC-GAC Panel Report

The Division of Research is authorizing a contract with the National Academy of Sciences providing initially \$20,000 to support planning sessions for the overall physics survey and to support the prompt establishment of the Nuclear Physics Panel which would conduct an in-depth review comparable to that completed for high energy physics.

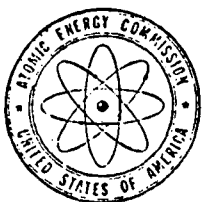
Lawrence Award for 1970

We have proposed to the White House Staff that the President's signature continue to be carried on the Lawrence Awards Citation under the procedures of the August 7, 1969 Executive Order. We will discuss the outcome of this request at your next meeting.

Cordially,



Chairman



UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON 25, D.C.

UNCL. BY DOE
NOV 88

SEP 12 1969

Honorable Warren G. Magnuson
United States Senate

Dear Senator Magnuson:

I have your letter of September 2, 1969, regarding the possibility of postponing the underground nuclear calibration test, MILLROW, which is scheduled to be conducted on Amchitka Island in the Aleutian chain.

During your absence I have discussed with Mr. Trecker the purpose of the test, the several reasons for maintaining the present schedule, and the adverse effects of a delay.

I wish to assure you that all safety precautions are being taken in proceeding with this event. Further, we will be prepared to discuss with you the details of any planned higher yield test at Amchitka well in advance of its scheduled execution.

Cordially,

(Signed) Glenn T. Seaborg

Chairman

UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

9/12/69

OFFICE OF THE CHAIRMAN

The President
The White House

Dear Mr. President:

I am pleased to inform you that after review of the recommendations of the General Advisory Committee, the Atomic Energy Commission wishes to grant the Enrico Fermi Award for 1969 to Dr. Walter H. Zinn in recognition of his pioneering work in atomic energy, including the world's first reactors and the fast breeder reactor, and his distinguished record of leadership and contributions to the development of atomic reactors for research, production, propulsion, and electric power. Biographical data on Dr. Zinn is attached.

The Enrico Fermi Award is granted under the authority of the Atomic Energy Act of 1954, Section 157 b(3) and is based on an award, including a \$25,000 honorarium, to Dr. Enrico Fermi on November 16, 1954, recognizing his "contributions to basic neutron physics and the achievement of the controlled nuclear reaction." The Fermi Award was established April 18, 1956, when the Commission determined the award would be made:

- a. For outstanding scientific or technical achievements related to the development, use, or control of nuclear energy;
- b. On an international basis;
- c. To an individual, or to several individuals, for separate or cooperative achievements.

Mr. President

- 2 -

Since its establishment the award has been granted as follows:

- 1956 - Dr. John von Neumann
- 1957 - Dr. E. O. Lawrence
- 1958 - Dr. Eugene P. Wigner
- 1959 - Dr. Glenn T. Seaborg
- 1961 - Dr. Hans A. Bethe
- 1962 - Dr. Edward Teller
- 1963 - Dr. J. Robert Oppenheimer
- 1964 - Vice Admiral Hyman G. Rickover
- 1966 - Dr. Otto Hahn
Dr. Lise Meitner
Dr. Fritz Strassmann
- 1968 - Dr. John A. Wheeler

Each of the recipients received an honorarium of \$50,000 except Admiral Rickover and Dr. Wheeler, who received \$25,000, and Drs. Hahn, Meitner, and Strassmann, who shared equally a \$50,000 honorarium. In 1964, the Commission determined that within the limitation that the total of all individual awards granted in any one year should not exceed \$50,000 the monetary award to any one individual should be limited to \$25,000, as awarded to Dr. Fermi in 1954.

Accordingly, the Commission recommends that you approve granting the Enrico Fermi Award to Dr. Walter H. Zinn, with an honorarium of \$25,000.

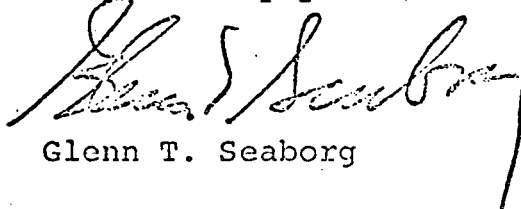
Mr. President

- 3 -

If you approve, we hope it will be possible for you to participate personally in the Fermi Award presentation ceremony as has been past Presidential practice. In this connection, we have an opportunity to present the award on December 2nd, the anniversary date of the achievement of the first nuclear chain reaction, coincidental with the annual joint conference of the American Nuclear Society - Atomic Industrial Forum which is scheduled this year from December 1 - 4 at the St. Francis Hotel in San Francisco. This annual conference is attended by leading representatives from science and industry as well as foreign nuclear energy scientists and executives.

In recent years, the ceremony has been held in the White House, with exception of the 1966 ceremony which was held in Vienna in conjunction with the Tenth General Conference of the International Atomic Energy Agency. Therefore, if your schedule does not permit a December 2 ceremony in San Francisco, we would propose a late afternoon ceremony at the White House on December 8.

Respectfully yours,



Glenn T. Seaborg

Approved:

The President
The White House

Date: _____

Attachment:
Biographical Data

UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

SEP 12 1969

Honorable Robert P. Mayo
Director, Bureau of the Budget

Dear Mr. Mayo:

In accordance with the provisions of the Budget and Accounting Act of 1921, as amended, and the budgetary and fiscal policies set forth in your letter of July 22, 1969, we are submitting budget estimates for the Atomic Energy Commission for fiscal year 1971 amounting to \$2,914,559,000 of new obligational authority (NOA). This amount includes \$2,387,187,000 for the operating expenses appropriation and \$527,372,000 for the plant and capital equipment appropriation. The total is \$399,559,000 over the planning figure transmitted in your letter of July 22. However, the amount of our request was determined only after a most searching and detailed analysis performed by the Commission of the programs and activities we believe must be conducted in order to advance the objectives of this Administration. Of major concern to us, therefore, is the sizeable discrepancy that exists between the fiscal resources required on even a stringent basis to discharge our programmatic responsibilities and the planning figure given us in your letter of July 22.

One obvious contributing factor to this discrepancy is the absence this year of a built-in decrease in uranium procurements and purchases of electric power for the gaseous diffusion plants of the magnitude experienced for the past several years, which in large part offset increases in our research and development programs. Without such a decrease, the need to accommodate a sizeable increase in the production of nuclear weapons to meet Presidentially approved stockpile numbers without a commensurate increase in budget authority places the Commission in an untenable position.

As requested in your letter, there is enclosed a listing of the program reductions, ranked in priority groupings, that would have to be undertaken to meet your planning figure. In this connection, you will note that while the reductions are sufficient to meet the budget authority planning amount, they do not meet by \$38 million the outlay

planning amount. Apparently, in arriving at planning figures, some imbalances between budget authority and outlays must have crept into the computations, since we could not arrive at any logical program combination that would meet both planning amounts.

It should also be noted that the priority listing of reductions does not include \$60,940,000 of construction funds for the U-235 cascade improvement program which could not be accommodated within the planning amount. We believe the policy and legislative considerations concerning this item are so unique and far-reaching that it would be misleading to combine it in a list of program reductions to arrive at the planning figure. The prime uncertainty is, of course, whether legislation will be proposed and enacted in this session of Congress to provide adequate sources of funding to carry out the U-235 enriching operation. Establishment of sources of funding in lieu of appropriation starting in fiscal year 1971 would have a significant effect on the Commission's budget requests.

With respect to the other reductions that would be necessary to meet the target figure, we strongly believe as mentioned above that they represent program activities and projects which should move forward in keeping with the goals and objectives of this Administration. Thus, it is somewhat under duress that we identify these items as possible reductions to arrive at a fiscal year 1971 appropriation request. Therefore, we urge that when the budget allowances for the Commission are finally determined, funds will be provided to the fullest extent possible for the items identified herein.

We believe it would be useful to highlight at this point some of the program reductions that would have to be made to meet the planning figure.

Notwithstanding our legislative responsibility to make the maximum contribution to the common defense and security of the Nation as the paramount objective of the Commission's activities, we would even have to effect sizeable reductions in our nuclear weapons and naval reactors program in order to meet the target budget. We would view any such reductions as particularly serious since our request for these programs is already extremely restrictive. For example, even though we have good reason to believe we will shortly be receiving a military requirement for an artillery-fired atomic projectile and for an improved Spartan warhead, we have not included funds for plant

facilities to meet this responsibility. If we receive the requirement as expected, it will be necessary to submit an amendment to the current budget request.

Conformance to the restrictive budget would also necessitate the shutdown of two of the six production reactors still in operation. There are major uncertainties in future requirements for reactor products for weapons purposes. For this reason, the Commission considers it essential to provide for a reasonably sized contingency supply of materials to permit an effective and timely response to new demands beyond currently defined firm requirements, rather than to rely heavily upon reactivation of shutdown reactors. Reactivation of shutdown units would take at least 18 months and there is considerable uncertainty as to the costs associated with such actions. There is also uncertainty in the availability of personnel to assure safe startup and operation of the reactivated units, particularly if their period of operation is to be of limited duration and if fewer production reactors remain in operation to serve as a reservoir of experienced personnel. Previous shutdowns at both Richland and Savannah River have resulted in this agency approaching the position of no longer having the viability to respond promptly and effectively to new demands. Shutdown by fiscal year 1971 of two additional reactors would only worsen this position. For these reasons, the Commission believes that the only prudent course of action is to continue operation of the six production reactors until either the uncertainties in longer term requirements are clarified or an adequate contingency reserve of material has been accumulated.

Restriction of our operations to the level that would be required by the planning figure surfaces a special issue of national importance -- the drastic curtailment of AEC's participation in the Nation's space program. Since the President's Space Task Force had not completed its work at the time the AEC's planning amount was developed, the planning amount was determined without knowledge of the final conclusions and recommendations of the Task Force. This situation became painfully clear to the Commission when we were forced to recognize that we could not accommodate two extremely important and fundamental space activities within the restrictive planning figure. The activities which we would be forced to terminate are the NERVA program for Nuclear Rocket Propulsion and the zirconium hydride reactor development work for the generation of auxiliary electric power in space. Termination of NERVA would indeed be most injudicious since this technology is without equal in performing a number of the missions

that we understand are planned under the Nation's space program. Termination of the zirconium hydride reactor work would also be most unfortunate since we have been engaged in this project for a number of years in association with NASA which is developing the power conversion equipment to go with this reactor. We would view termination of this program as unwise since the need for a sizeable electric power source is sorely needed in this Nation's space program.

Highly undesirable reductions would have to be made in our basic research activities in the physical and life sciences. As a consequence a number of activities at our national laboratories and under our university research programs would have to be reduced even below current levels. The adverse effects of the reduced operating levels in basic research would be accentuated by the need to fund operation of new facilities just starting up or coming into being. Such reductions would be entirely inconsistent with the President's program to support university research and with the efforts of Dr. DuBridge to restore the levels of Federal support of university research which have been cut back to somewhat disastrous levels in the past few years. Inadequate support of basic research can only lead to a significant imperilment of this Nation's future.

Compliance with the planning amount would preclude the purchase of computers urgently needed in the weapons, naval reactors, and physical research programs. As a result, the Commission would incur the severe economic penalties attendant upon leasing these computers. Such penalties are not only not good business but run counter to the policies of this Administration and also damage the excellent reputation earned by AEC in this field for which it has been commended by the Congress.

The Commission would also deeply regret any requirement to effect sizeable reductions in the development of reactors for the production of electric power at large central station plants. Under the planning amount it would be necessary to conduct our development of advanced converter, thermal breeder and fast breeder reactors at considerably below optimum levels with a severe economic penalty, over time, in the cost of generating electric power.

The planning figure would not permit the inclusion of funds for a nuclear desalting demonstration program. When one considers the critical water shortage problems confronting this and other nations, in conjunction with the extremely promising potential of nuclear

desalting technology, it is our conviction that some way should be found to permit this demonstration to move forward.

These comments simply highlight a few of the areas where we would have to make budget cuts to meet the planning amount and are far from a comprehensive statement of the program sacrifices the Commission would suffer. Commission staff will be discussing these matters as well as other aspects of the Commission budget much more extensively during the course of the budget review by your staff. Let me emphasize, however, that the Commission would welcome, in fact more than that, we seek an opportunity to discuss our program requirements and budgetary levels with you personally before final determinations are made.

Sincerely,

(Signature)
Chairman

Enclosures:

1. Budget Estimates
2. Listing of Reductions

bcc: Chairman (2) ~~2~~
Commissioner Ramey
Commissioner Johnson
Commissioner Thompson
Commissioner Larson
Secretary (2)
General Manager (2)
General Counsel
Controller
ACBudgets
Budget Br. Chiefs
Yellow
Chron



At Laxbrostugan, Skansen; September 14, 1969.
L to R: Monica Tersmeden, Seaborg, Carl Tersmeden.



At Laxbrostugan, Skansen; September 14, 1969.
Present: Karl and Jenny Adolfsson; Bengt and Britta Adolfsson; Siv and Tomas Lindkvist; Gösta and Ingrid Berglund; Hans and Gun Grill, Jimmy and Helen Grill; Irene and Gösta Adolfsson, Eva and Lena Adolfsson; Olof and Eivor Bloom and Per, Berit and Anders Bloom; Tora and Eric Bäcklin; Anita (Bloom) and Jan Erik Gustafsson; Mona (Möller) Forssling with Carina and Birgitta Forssling; Sven and Ulla-Britt Österberg with Eva, and Karin Österberg; Timo and Inga Lindas with Mats, Johan and Sara Lindas; Albert and Maria Eriksson and Göran Eriksson; Lena Eriksson and her fiancé; Carl and Monica Tersmeden; Karin and Per Möller and Göran; and Seaborg.

(2 years) Lindas; Albert and Maria Eriksson and their grown son, Göran Eriksson; Lena Eriksson (daughter of Albert and Maria) and her fiancé; Carl and Monica Tersmeden; Karin and Per Möller and son Göran (15 years).

We took movies and color snapshots but the light may have been inadequate for the movies. I toured the six-room house and again saw the large portraits of Mickael Hindersson and Maria van Gent on the wall with the names and the date 1673.

We all then went to the Vardshuset of the Solliden, where we had a large room to ourselves and were served coffee, tea, sandwiches, etc. Olof gave a welcoming speech, and, with the help of Siv Lindkvist as interpreter, I extended greetings from Helen, described the present whereabouts of our kids, described my projected visit to eight countries on this European trip, etc. I gave them some presents of stockings, pens, toys, etc., which Helen had purchased for the occasion, and Olof expressed thanks for the group. We stood around outside of Solliden for a long time, and I took more pictures. I said goodbye to the group, and then Karl and Jenny and Gösta, Irene, Eva, and Lena, and Bengt and Britta rode in two cars (driven by Stig Eriksson and Siv Lindkvist) to the railway station to take the train to Eskilstuna.

Karl told me that our family's connection with Laxbrostugan was uncovered by Mother's friend, Sigard Nauckoff, aided by subsequent research by himself, in 1958. Maria van Gent was Mickael Hindersson's first wife, and she had no children; it was one of his children by his second wife who was one of our ancestors. (I have since learned that this was erroneous information; Maria had many children, including a daughter, a grandparent of mine seven generations back.) Karl thinks that Laxbrostugan was built about 1650 and moved from Kopparberg about 1910. (I learned later that it was moved about 1895.)

I rode with Siv and Tomas to the Lindkvist home in Lindingö (Södra Kungsvägen 276) and visited a few minutes. Siv then drove me to Södergarn, which is about a quarter of a mile from the home of her parents-in-law. The senior Lindkvist owns many apartment houses, etc., in Stockholm. Peter and Siv Lindkvist are planning to visit the United States next summer.

Back at Södergarn I attended a buffet dinner where I sat with Arne Tiselius, Millionshchikov and Pochitalin. In the lounge I talked to a number of symposium participants, including Sam Nilsson, H. D. Lasswell, Harrison Brown, Mr. and Mrs. J. S. Bruner, A. Koestler, Boris Pregel. A number of us went down to the movie projection room where we saw a documentary film on India.

Monday, September 15, 1969 - Stockholm

I had breakfast with Harrison Brown and Arne Engström; it was buffet style as apparently are all the meals except the special dinner.

I then attended the opening session of Nobel Symposium 14 "The Place of Value in a World of Facts." Those participating in the Symposium were: Henry D. Aiken (USA-Philosophy), Wystan H. Auden (England/USA-Poetry), Harrison Brown (USA-World Natural Resources), Jerome S. Bruner (USA-Cognitive Studies), Frede Castberg (Norway-Law, Social Science), Carlos Chagas (Brazil-Biochemistry, Science Planning), Constantinos A. Doxiadis (Greece-Architecture, Ekistics), Vladimir A. Engelhardt (USSR-Biochemistry), Arne Engström (Sweden-Medical Physics), Karl-Erik Eriksson (Sweden-Theoretical Physics), Karl R. Gierow

(Sweden-Literature), Ernst H. Gombrich (England-History of Arts), Wilfried Guth (Germany-Economy), Carl Göran Hedén (Sweden-Bioengineering), Y. Hayashi (Japan-Socioeconomic planning), Alexander King (England-Science policy), Otto Klineberg (Canada-Psychology), Arthur Koestler (Austria/England-Trans-disciplinary writing), T. Adeoye Lambo (Nigeria-Brain research), Harold D. Lasswell (USA-Law, social science), Joshua Lederberg (USA-Man and genetics), Konrad Lorenz (Austria-Ethology), Ivan Malek (Czechoslovakia-Microbiology), J. McHale (USA-Futurology), Margaret Mead (USA-Cultural Anthropology), Mikhail D. Millionshchikov (USSR-Physics), Jacques Monod (France-Molecular Biology), Gunnar Myrdal (Sweden-International affairs), Sam Nilsson (Sweden-Physics), Linus Pauling (USA-Chemistry, peace), John R. Pierce (USA-Electronic Information Systems), Boris Pregel (USA-Applied Physics), Abdus Salam (Pakistan-Physics, science planning), August Schou (Norway-International Relations), Torgny Segerstedt (Sweden-Sociology), Jehangir R. D. Tata (India-Economy), Jan Tinbergen (Holland-Socioeconomic planning), Arne Tiselius (Sweden-Biochemistry), and Conrad H. Waddington (Scotland-Genetics).

In addition to those listed above in my journal, there was a group of outstanding university students and young graduates, invited to attend the symposium so that the views of the rising generation would be heard at this gathering composed otherwise of persons who had already achieved fulfillment and promise in their various fields.

Arne Tiselius gave the introductory address. He described the origin and form of the symposium and the role of the young people as questioners. He emphasized the need for understanding non-scientists and the world in general in today's troubled world as well as the need for an experimental approach and an open mind.

Next we heard a taped voice by one of the youths warning us about our complacency and the penetrating nature of their forthcoming questions. He said the average age of the symposium participants is 69.4 years, that of the youth group is 24 years.

The first meeting was on "The Menace and Promise of Science." The first session was chaired by Engelhardt; he introduced Jacques Monod, who spoke on "Molecular Biology and Human Needs," describing the role of statistically random selection in biological evolution and extending the concept more generally to all human development. This emphasizes the needs for values in the cultures of all nations. He decried some of the aspects of the philosophy of West and East and the reliance on "lies." A value system cannot be based wholly on a system of facts--it must go beyond this. He said there is no reason to despair and that he strongly believes in the power of the scientific method.

Engelhardt next introduced Joshua Lederberg, who spoke on "Technical Possibilities for Remaking Man." He questioned the universal applicability of Pauling's axiom of minimization of human suffering and gave examples where it couldn't apply. Experimental biology puts today's hypothetical challenges and tomorrow's actual problems to man. Biological engineering in the remaking of man includes first the conquest of infection (especially in children) which contributes to population explosion. Another result is today's volunteerism of death--most people today die at a moment determined by some person. Promulgation of an adequate level of nutrition is probably the next major step in the modification of man. Mind control is a factor, but man already is endowed with electrodes in his head. Artificially controlled fertilization

and genetic manipulation are becoming possible. We are not intelligent enough to know how we would specify the DNA code to produce the type of individual we want. He described the progress in incorporating genetic information in a virus cell. The style of exposition of these matters is just as important as their content.

While Lederberg was speaking I learned that I had an 11 a.m. appointment with Minister Alva Myrdal. Accompanied by Clyde L. McClelland, I was driven to the Foreign Ministry.

In my meeting with Minister Myrdal (attended also by McClelland) after some initial remarks about my attendance at the Nobel Symposium and my meeting with relatives at Laxbrostugan yesterday, I first raised the question of Swedish ratification of the NPT. Mrs. Myrdal said it has been established as Swedish national policy to do this after the United States and the Soviet Union had taken legislative action; she indicated that if the United States and Soviet Union ratification were delayed too long Sweden might go ahead with legislative action. The Swedish Government had decided to ratify. As recently as five to eight years ago the Government hadn't even decided against manufacturing nuclear weapons, but now the national position is not to manufacture nuclear weapons. I said that the United States looked to Sweden to exercise its traditional leadership and set an example for the world by ratifying the NPT--even before the United States and Soviet Union do.

I then turned to the matter of Sweden's transferring safeguards, under the 1966 U.S.-Swedish Bilateral Agreement, to the IAEA. I pointed out that this Agreement stated that Sweden would negotiate "promptly" with IAEA to do this. She pointed out the problem that this would cause at a facility in Europe where only Euratom safeguards applied. I suggested that Sweden write a letter to the Director General of the IAEA expressing its intention to transfer the safeguards function and suggesting the start of negotiations to do this, as Switzerland has done. I said this would do much to counteract problems in the United States emanating from Swedish inaction under the 1966 Bilateral. Mrs. Myrdal said that she would immediately look into the possibility of writing such a letter, expressing some surprise that it hadn't been done. She then turned to the topic of peaceful nuclear explosives. I expressed the U.S. position that supervision of this should be under the IAEA. She agreed so far as the technical aspects are concerned but thought the broader aspects of policy and licensing should be under the United Nations to insure economic equality.

She told us that she was going to attend the daily lunch of the 19 Cabinet Ministers with the Prime Minister (held five days a week), where all matters of policy are discussed. Presumably the issues in her conversation with me will be discussed at this meeting today. She told me that she, Minister Olof Palme and Olof Rydberg, the head of the Swedish Broadcasting Company, were publicly advocating an international broadcasting satellite. I concluded the appointment at 11:30 a.m.

I then returned to Södergarn to the Nobel Symposium. I had missed John Pierce's talk "Possibilities and Pitfalls in Electronic Information Transfer." I heard the remainder of the talk by Carlos Chagas, "Priorities in Science," which was in progress. Joshua Lederberg was chairman of the second part of this session. Chagas said new methods of science education are important, especially to developing countries but also to developed countries. He described generally the importance of science to the developing countries.

I had lunch with Joshua Lederberg. He agreed with me that biological insults of many types, such as inhaled smoke from coal burning plants, consumption of chlorinated drinking water, are much more serious than that from the low levels of radioactivity discharged from nuclear power plants. However, he thinks that the criticisms of nuclear plant effluents by biologists, even though overstated, serve a useful purpose in alerting authorities to do everything possible to alleviate the effects.

After lunch I took a hike on some of the trails at Södergarn.

Linus Pauling, who sat next to me at the Symposium sessions, explained to me his new ideas on orbiting alpha particle clusters in nuclei, which he claims explain certain spacings of levels in even-even nuclei.

I attended the afternoon discussion session, presided over by Harrison Brown. Brown developed the thesis that there are many cold (earth-like) planets in the universe that have the necessary conditions to support life. He went on to raise the question as to whether the many man-made radiations from our earth might not be detected by intelligent life on such planets.

Pauling said he thought it should be possible to improve cerebration by improving the molecular environment of the mind and added as an example his predicted effect of large doses of vitamin C (perhaps as high as 1 gram a day instead of the recommended 30 milligrams) in improving the IQ of children.

Arne Tiselius reviewed the high points of the talks by the day's speakers--he jokingly suggested the creation of an international organization with a dictator to decide the direction that applied research should take in countries throughout the world (i.e., he would distribute and assign the problems to be tackled.) He would like this conference to express some ideas concerning a concentrated international effort on the world's problems.

After the discussion session I took a hike on the trails to Fagelöudde and back, a total of some 3 or 4 miles. I then attended the reception with the international press, academies and learned societies. I talked to numerous members of the press, including Michael Salzer, a British national who has lived in Sweden (presently in Lidingö) for 20 years and is a correspondent for Swiss newspapers--he plans to spend a year in the United States (Santa Cruz) and will lecture on an outsider's views on Sweden. He offered to do this in Washington, and I told him to write me and I would refer the matter to our Division of International Affairs to advise him.

I had dinner at a table with some of the youth group--Gustav Ericsson, Staffan Hildebrand (who wants to interview me), and Jan Fjellander, and we had a lively discussion. Fjellander has spent about 3 months in China (in 1966) and was extremely favorably impressed with the Chinese people and life in China. Hildebrand was of the view that there was serious anti-Swedish opinion in the United States and Lederberg (who joined us) and I told him this is not so.

[Following is an account of today's major activities in the Washington AEC office.

At my request, Commissioner Johnson called Lee DuBridge to alert him to the possible serious consequences of the President's cutback in FY 1970 construction on the 200 Bev Accelerator. Johnson, on his own initiative, also called Henry Kissinger's assistant, Colonel Haig, to request that an official approval from the White House to conduct the MILROW test at Amchitka be issued.

Congressman Chet Holifield called Johnson to express his objections about AEC's releasing a voluminous unclassified report on the Rocky Flats fire, on the basis that the report would be damaging to the national interest and the nuclear weapons and power programs. Copies of the draft report were collected and destroyed, and a short version is being prepared.

The Space Task Group submitted its report to the President. Milt Klein was present in the meeting with the President and reported that the President commented on the importance of continuing development of the nuclear rocket. (Copy of the notes of the meeting are attached).]

Tuesday, September 16, 1969 - Stockholm

I had breakfast with Mr. and Mrs. Boris Pregel and Frede Castberg. I reminisced with Pregel about his role as an officer of the Canadian Radium and Uranium Corporation during the war and my contacts with him, M. Pochan (his chemist at Port Hope), Carl French (head of his office, Toronto) and the whereabouts of Gilbert LaBine, the discoverer of El Dorado Uranium Mine in northern Canada (he is still alive).

I attended the morning program on "The Teaching of Knowledge and the Imparting of Values." Gustav Ericsson, the leader of the youth group, talked to us. (Six of his seven colleagues were with him on the platform. Jan Fjellander was missing.) He described the activities of his group and gave us each a copy of their brochure "To Superminds with Love." Arthur Koestler was chairman of the program. He introduced Conrad H. Waddington who spoke on "The Relevance of Biological Types of Thought to Modern Society." He spoke of ethics and the choice of axioms on which this should be based.

Koestler then called on Lambo who spoke on "Social and Psychological Change and Human Needs in the Developing Societies of Africa." He said his talk would include discussion of social and psychological possibilities for remaking man. He stated that young people are confused by the new civilizations, especially science and technology. He spoke of the social, economic, and educational problems of Africa and the differences in the value systems as compared with those of the West; African societies are in a state of flux--the prognosis for the future is good.

Bruner spoke next, on "Reason, Prejudice and Intuition." He started by talking about the role of the nervous system in information processing. Information undergoes editing at each stage as it passes through the neural system. The contrast is between science on the one hand and personal relevance on the other. Present ferment is truly revolutionary--it is basically an attempt to resolve the conflict between purpose and neutrality. Myth that science is laissez-faire was never true and isn't true today. Understanding of the relationship between social purpose and scientific activity should be one of the purposes of this conference.

I returned a call from Professor Alexis C. Pappas at Oslo declining an invitation to speak.

Following a coffee break there was a discussion of the preceding papers. Mikhail D. Millionshchikov compared the situation in developing countries with the anomalies in the laws of turbulence, which he has discovered, and made a plea for the use of the experimental method to help raise the level of these



UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

September 17, 1969

NOTE FOR CHAIRMAN SEABORG

The Space Task Group met with the President on September 15, 1969, at 3PM to present its report. Present in addition to the President and Vice President were:

Principals

Dr. Lee DuBridge
Dr. Thomas Paine
Dr. Robert Seamans

Observers and Others

Col. William Anders
Dr. Arthur Burns
Dr. Russell Drew
Mr. Peter Flanigan
Mr. Alexis Johnson
Mr. Milton Klein
Mr. Robert Mayo
Mr. Frank Pagnotta
Mr. J. Wolff
Mr. Ronald Ziegler

The meeting opened with the Vice President briefly describing the membership and workings of the Space Task Group. Russell Drew then presented a summary description of the report and its recommendations. Following that presentation the President asked a number of questions and led a general discussion.

While he had not yet seen the report, it was apparent that he had been made aware of the more significant general facets of it. He stated that he felt strongly that the Nation should move ahead in space and that we had a responsibility to do so regardless of the Soviet Union's space program. He stated that while the present financial burdens of the country may limit how fast we were able to move at this time, he wanted to be in a position to move faster in the future if circumstances permit. He tended to focus on the manned planetary mission and asked several questions about how early it could be done and how that date was dependent on times of decision. In response to a question, he was told that a 1983 mission was the earliest reasonable date without engaging an all-out effort. He asked if the mission could be accomplished earlier if the decision were made a couple of years from now. He was told that to do so would entail a crash effort, but it would make a 1983 mission comfortable provided the necessary precursor activities were under way. Various comments by Task Group members indicated that the programs recommended did proceed with precursor activities and, therefore, the President did have some flexibility in the time of decision for that mission. The President reiterated that he wanted to be in a position to move forward with a program that provided him this flexibility.

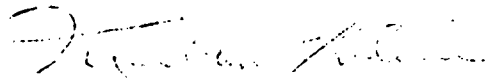
In the course of the discussion, Dr. Paine referred to the nuclear rocket specifically. The President displayed interest in it and asked how the work was coming along. He was assured by Dr. Paine and in turn by me that the work was proceeding well and that the system would be capable of high performance. Later, when the President indicated that he wanted the necessary activities to be moving ahead so that he would be in a position to proceed at an early time with a manned planetary mission, he used as an example the "atomic engine should be ready."

The President said he liked the approach of the report. He was pleased it rejected any substantial reduction in space activities and, at the other extreme, did not propose a crash program for a manned Mars landing. He was also pleased that it provided a flexible program. All in all the President stated a very positive personal view with respect to moving ahead with our space activities.

There was some discussion of the timing of the release of information on the STG report. The President said that a statement was to be issued that afternoon to the effect that he had received the report and that the STG report itself would be issued in several days. The date of Wednesday, September 17, was mentioned as a likely date for release of the report.

The Vice President repeated to the President the comment he had made in the last meeting of the STG that the workings of the Space Task Group were the most rewarding he had encountered in his time in Washington. He was quite complimentary of the way in which the agencies involved had worked together.

The meeting was ended about 4:00 PM.



Milton Klein, Director
Space Nuclear Systems Division

cc: R. Hollingsworth, GM
G. Kavanagh, AGMR

countries. Joshua Lederberg said the solution to our problems is not to use technology as a scapegoat but to work hard in the political arena down to the precinct level.

Koestler called on Gombrich who spoke on "Art and Self-transcendence." He described the current cult of relevance among young people as nonsense. Koestler then called on Wystan H. Auden who spoke on "Freedom and Necessity in Poetry." He described the differences between a crowd, a community, a society, etc., and their relations to poetry. He described the concept of speech and the role of poetry. He compared the similarities and differences between the arts and the sciences.

In the discussion period Arne Tiselius emphasized the similarities in the thinking processes of scientists and artists, a fact that is hidden in the polished publications which do not include a description of their mistakes.

I had lunch at a table with Torgny Segerstedt, Rector of Uppsala University. He said that student unrest at his University is not yet serious but he does note a certain anti-science attitude.

After lunch I had a number of press interviews. Per Ragnarson of Swedish Radio interviewed me on tape for broadcast on Wednesday or Thursday. He asked about U.S. policies in the enrichment of uranium for foreign countries (I explained our nondiscriminatory policy and plans for future expansion), the possibility of European enrichment plants including gas centrifuge (I emphasized importance of NPT safeguards), the possibility of U.S. cooperation with Sweden in development of breeders (I said it is possible in principle).

Harald Ericsson (Vice President) and Ingrid Sandahl (Member of the Board) of the Swedish Association of Young Scientists (50 science clubs at pre-university level) and Ungdomsaret (the Youth's Spring) interviewed me on secondary school education and changes required in areas of teaching the concept of values, etc. Lennart Lofthagen of Syd Svenska Dagbladet interviewed Mikhail D. Millionshchikov and me on construction of nuclear plants and nuplexes in developing countries and need for financial help in their construction (we explained when it is appropriate to build such plants, described the U.S. and U.S.S.R. and IAEA programs of cooperation in the peaceful uses of nuclear energy, and agreed that the building of nuplexes requires financial aid through methods yet to be worked out).

I then attended the afternoon discussion session. At 3 p.m. I again rode with Clyde L. McClelland to the Kansilhuset for my appointment with Prime Minister Tage Erlander. Present during this meeting were McClelland, Ingvar Carlsson (Under Secretary of State, Prime Minister's Office), and Bo Aler (soon to succeed Brynielsson as head of Swedish atomic energy program). We began with some reminiscing about my previous meetings with the Prime Minister--our first meeting at a meeting of the Academy of Engineering Sciences in 1949, our lunch at Countess Fleetwood's in 1962, our meeting in this same office in 1964. I then told the Prime Minister that I wanted to talk about Sweden's intentions in connection with the NPT and the transfer of the safeguards of the Swedish-U.S. bilateral agreement of 1966 to the IAEA. I reminded him that this agreement stated that Sweden would do this "promptly" which is hardly consistent with Sweden's inaction. The Prime Minister took up the safeguards matter first and asked Carlsson and Aler why nothing had been done. Aler described the problem of Euratom vs. IAEA safeguards in connection with nuclear fuel reprocessing. I suggested that Sweden follow Switzerland's

example and send a letter of intention to the Director General of the IAEA. I said Mrs. Alva Myrdal seemed inclined to do this. The Prime Minister asked Carlsson to follow up on this with the Foreign Ministry; he thought it should be done. We then went on to discuss the NPT. I told the Prime Minister that ratification by Sweden would set a good example for the rest of the world and was considered by the United States to be very important. This seemed to impress him very much and he asked Carlsson to explore the possibility of pushing ratification by Sweden. The critical role of West Germany in asking for simultaneous ratification by the United States and the Soviet Union was recognized since this had led to delays of ratification. We concluded our conversation with my description of my Sunday meeting at Laxbrostugan with my 47 relatives and my description of the historic place of this house in my mother's family (memorandum of conversation attached).

After this interview McClelland and I went on to the Swedish Academy (of literature) where I joined my fellow participants in the Nobel Symposium to hear the public lectures. The meeting was opened with a few words of welcome by Karl R. Gierow (Permanent Secretary of the Swedish Academy). The Chairman of this afternoon's lecture session, Segerstedt, then introduced Frede Castberg, who spoke on "Evolution of Values." The next speaker was Gunnar Myrdal on "Causes and Effects of Biases in Research." He spoke about the biases in social science research, not natural science. This was followed by a discussion session in which Margaret Mead emphasized bias in natural science research whenever it reached a level of public involvement.

On the way out of the Swedish Academy lecture hall (a beautiful room) I talked to Gunnar Myrdal and told him that I had seen his wife and tried to convince her that Sweden should ratify the NPT. To my surprise he blew up and began to speak to me in a loud voice (almost shouting), berating the posture of the United States in disarmament, resolutions on biological warfare, etc.--I was amazed at his instantaneous highly emotional reaction, making it totally impossible to continue our conversation.

I rode back with the Symposium group on the bus, sitting next to August Schou, Director of the Norwegian Nobel Institute (which gives out the Nobel Peace Prize)--he told me about their difficulty in finding suitable candidates.

At dinner I sat at a table with Arne Tiselius and Lambo (Rector of the university located near Lagos). When Lambo learned of my forthcoming trip to Africa next January, he invited me to visit his university. I tried to feel out Tiselius concerning the recipient of this year's Nobel Prize in chemistry but I got no indication. In response to a request from Tiselius for a suggestion for a resolution that might come out of the Symposium, I suggested that we call on our political leaders to recognize the direction in which the world is going and to take steps to turn it to a better direction by better utilization of science and technology.

[Following is an account of today's major activities at the Washington AEC office.

The JORUM underground nuclear weapons test took place at 10:30 a.m. EDT at the Nevada Test Site. Although ground motion and swaying of buildings were observed in Las Vegas and elsewhere, there were no reports of damage. The device performed as expected, with a yield in the vicinity of a megaton.

At 11:40 a.m., Peter Flanigan called Justin Bloom, in my absence, to tell him that the President had approved the MILROW test and that the publication

DEPARTMENT OF STATE

Memorandum of Conversation

UNCL. BY DOE
NOV 86

American Embassy Stockholm
DATE: September 16, 1969

SUBJECT: Swedish Views on the Non-Proliferation Treaty and on Transfer of
Bilateral Safeguards to the IAEA

PARTICIPANTS: His Excellency, Tage Erlander, Prime Minister of Sweden
Dr. Bo Aler, Chief, Unit for Technical Research and Development,
Ministry of Industrial Affairs, (and, as of January 1, 1970,
Managing Director, Swedish Atomic Energy Program)
Ingvar Carlsson, Statssekreterare (Chief of Staff, Prime Minister's
Office)
Dr. Glenn T. Seaborg, Chairman, US Atomic Energy Commission
Dr. Clyde L. McClelland, Scientific Attache, US Embassy, Stockholm

COPIES: AEC - 10 William Rice, USAEC Scientific
ACDA Representative, London
US Mission to the CCD, Geneva US Mission to IAEA, Vienna
SCI - Department
EUR/SCAN
Embassy Files

After an exchange of welcoming remarks and reminiscences about earlier meetings, Dr. SEABORG explained that he had taken the occasion of his participation in the Nobel Symposium on "The Place of Value in a World of Facts" to seek an appointment with the Prime Minister to discuss Sweden's plans for adherence to the Non-Proliferation Treaty and for the transfer of bilateral safeguards to the International Atomic Energy Agency. The Prime Minister responded first to the latter point and said that he knew there were difficulties. Turning to Bo ALER, he asked him to explain why safeguards had not been transferred to the IAEA. Aler spoke of Swedish-American discussions of a new and expanded bilateral agreement which had included discussions about the trilateral agreement required to transfer responsibility for bilateral safeguards to the IAEA. He thought that there had been a complete exchange of views on this topic with the US. Dr. SEABORG noted that the US-Sweden bilateral agreement of 1966 committed both parties

(Disturbing Office and Offices)

to prompt action to transfer safeguards to the IAEA. It was now 1969. He wondered why Sweden could not do as Switzerland has done and write a letter to the Director General of the IAEA stating their intention to begin negotiations toward transfer of responsibility for safeguards to the IAEA. Such a letter would be a real step forward. The Prime Minister recalled that there were certain difficulties associated with IAEA safeguards. ALER then outlined the problem of EURATOM safeguards which apply to chemical processing of Swedish irradiated material at the EUROCHEMIC plant in Mol. In ALER's opinion, the NPT would take care of these problems.

Dr. SEABORG acknowledged that the negotiations toward an NPT explained why there had not been greater concern about the transfer of safeguards at an earlier date. While the NPT would solve these safeguards problems when it became fully effective, a Swedish letter to the Director General of the IAEA would give everyone time to begin negotiations in a proper manner and would help to mitigate the criticism felt by the US about the delay in the negotiations for transfer of safeguards to the IAEA.

The Prime Minister asked ALER to check with Minister WICKMAN, Ministry of Industrial Affairs, about the possibility of drafting such a letter to the IAEA. ALER replied that there was no Swedish hesitation about IAEA safeguards in this area but, until the NPT became effective, there would continue to be difficulties. The Prime Minister observed that Sweden has promised to transfer safeguards to the IAEA. Dr. SEABORG interjected that Sweden has promised to do so "promptly" (laughter). ALER saw no difficulty in proceeding further along the line suggested by Dr. SEABORG. The Prime Minister asked ALER to take up the question tomorrow. ALER remarked that the matter could be cleared up by Tuesday of next week (September 23) and the discussions could be continued in Vienna at the General Conference of the IAEA. Dr. SEABORG indicated his willingness to do so.

The Prime Minister reminded Dr. SEABORG that there had been another important point to consider. Dr. SEABORG explained that the US hoped to persuade Sweden to ratify the NPT promptly. This would be a real help and would set a good example of Swedish traditional leadership in disarmament affairs.

The Prime Minister observed that Sweden had perhaps an "exaggerated" idea of its own importance. They thought that their reluctance to ratify the NPT might persuade the Government of West Germany to do so. The Swedish Foreign Relations Council has now been informed that it is not necessary to wait for West Germany to ratify the NPT. However, the "super powers," specifically the US, have not yet ratified.

Dr. SEABORG replied that the US has taken the legislative action required for ratification. We wished to encourage the West German Government to ratify the NPT and believed that the West Germans would be encouraged to do so if the US and the USSR ratified together. This was the reason for our delay.

The Prime Minister, in an apparently rhetorical question to his colleagues, asked if Alva MYRDAL had not stated in the Foreign Relations Council that it would be impossible for Sweden to put pressure on the West German Government. Mrs. MYRDAL had said that she was certain that the US and the USSR would ratify the NPT in the fall of 1969. She proposed that Sweden submit the necessary legislation to the Parliament this fall. The Prime Minister acknowledged that there had been delays in Swedish ratification. This delay was due to the earlier idea that the Government of Sweden could "blackmail" the Government of West Germany. Mrs. MYRDAL now regrets the delay. The Prime Minister said that Sweden would ratify the NPT "in the same moment" that it became known that the US and the USSR were going to ratify. Dr. SEABORG remarked that it would be helpful for Sweden to ratify before the US and the USSR did so. The Prime Minister, with apparent interest, asked, "Do you think so?" Dr. SEABORG assured him that prompt Swedish ratification would help, and the Prime Minister asked his staff to check into this matter further.

At the conclusion of the meeting, the Prime Minister noted that the Government of Sweden would give very serious attention to the two important points that Dr. SEABORG had raised.

SCI:CLMcClelland/saw (9/17/69)
Approved in draft by Dr. Seaborg

information package scheduled for release in connection with the test should be reviewed by him (Flanigan) prior to release. The date of release was to be determined by negotiation with him and would probably be four or five days before the event.

G. Victor Beard, Executive Director of Associated Western Universities, called Bloom in my absence to advise that the Executive Committee of AWU had approved a proposal to the AEC to continue the operation of the MTR and wanted the Commission to give it its personal consideration.

Commissioner Johnson received a call from Craig Hosmer which reported on Peter Flanigan's meeting with Holifield on private ownership of the diffusion plants.]

Wednesday, September 17, 1969 - Stockholm

I had breakfast with Y. Hayashi (of the Institute of Technology in Tokyo). He invited me to lecture at his institute during my visit to Tokyo next March.

I attended the sessions on "The New Republic - Scientist, Humanist and Government." Salam presided over the first session and called on Malek who spoke on "Creativity and Social Change." He described the inherent efforts of individuals from earliest childhood to participate actively. In the discussion following the talk J. Lederberg criticized the talk for its lack of appeal to the experimental method. J. S. Bruner said such experiments are very difficult.

The next speaker was Segerstedt who spoke on "Facts, Values, and the Future." He made a case for the importance of predicting the future. It is important to recognize the role of science in determining our future and to attempt to influence it to our advantage.

After the coffee break, Chagas as Chairman of the second part of the session called on Pauling who talked on "Scientists in Politics." He estimated the world's nuclear stockpile at 600,000 megatons which at 0.4 ton per person killed is enough to kill the people of the world many times over. He described the contributions of scientists to the Limited Test Ban Treaty, and to government in general (where he cited me as an example). He also mentioned need for scientists in legislatures and parliaments but he said those who have succeeded are negligible in number. He described the role of scientists in the ABM fight in the United States. He thinks decisions should be made in such a way as to minimize human suffering. He gave statistics on the maldistribution of wealth among the people of the world. There should be a transfer of the world's wealth from the unconscionably rich to the miserably poor.

Next I gave my talk on "Science, Technology and the Citizen."

After outlining the principal problems confronting mankind, I gave my views on how to approach them. I first discussed certain widespread negative attitudes, asserting then that:

"...we must counteract these three negative forces--despair, distrust of technology and anti-intellectualism--by reemphasizing the potential of man, the contributions and potential benefits of science and technology and the supreme importance of knowledge and intellectual development allied with human sensitivity."

I went on to speak of the potential promise of technological breakthrough in solving problems, citing the "Fusion Torch" concept of using ultra-high-temperature plasmas as a means to reduce solid wastes to basic elements for separation and reuse. As an example of important tools already available to mankind, I mentioned the computer and the tremendous contribution it can make in avoiding future problems. In conclusion, I stressed the evident need for a new relationship between scientist and layman, the need on both parts for a greater maturity and sense of responsibility in applying technological advances, and the importance of achieving unity of will and purpose if mankind is to survive.

After I finished, there were some questions. I was asked to defer my answers until the afternoon discussion period, in order to give the balance of the morning period to a scheduled interview.

Millionshchikov and I were then interviewed on tape by Hildebrand on the value of increasing the degree of cooperation between Soviet and U.S. scientists (we both agreed that this should and could be done and gave a number of examples of present cooperation).

I had lunch with Joshua Lederberg, followed by a walk by myself. At the afternoon discussion session I answered a question by Carl-Göran Hedén concerning his concept of a Statesman's Club (I said it would be good but impractical), from Henry David Aiken on whether scientists should be resistant to their government's policies (I said yes if they produce good arguments, but not just because they are scientists), by J. O. Schill of the youth group on my evidence for anti-technology attitudes, anti-rationalism, and anti-intellectualism (I mentioned exaggerated worry about environmental problems and other negative effects of technology, the attitude of Crozier, and the hostile attitude of nonscientist university professors).

I then rode with Pauling, Malek, Nigel Calder (honorary press secretary), Segerstedt, Chagas, Hedén and Fjellander to the Swedish House, where we participated in a press conference, presided over by Calder. Among the press representatives present were: Alfred Friendly (Washington Post), Daniel Greenberg (Science), Daniel Lang (New Yorker), Robert Cowen (Christian Science Monitor), Robert Skole (McGraw-Hill World News), Richard Litell (Medical Tribune), Alan Simon (NBC Radio News), Michael Davie (Observer--London), Stephen Croall (Reuters), Erwin Schuhmacher (various German magazines), H. Sinding-Larsen (Aftenposten--Oslo), Torsten Bergman (Finnish radio), Sandberg (Dagensnyheter--Stockholm), Wickström (Swedish TV) and E. H. Linder (Göteborgs-Posten). After Pauling had answered a question in a way that seemed to derogate the honesty of members of the U.S. Congress, Greenberg asked me if I agreed and I responded by emphasizing the intelligent and conscientious work of many members of Congress in exploring the effects of technology on society. Friendly asked me to explain the Fusion Torch concept, which I did. In answer to another question I stated that scientists should be concerned with the sociological aspects of their work. Pauling was very critical of the U.S. ABM program, the maldistribution of the wealth in the United States, etc.

I told Malek about my forthcoming trip to Czechoslovakia.

I checked with Clyde L. McClelland the cable and aerograms covering my appointments with Mrs. Myrdal and Prime Minister Erlander preliminary to their dispatch to the U.S. State Department, various embassies, etc. I then walked

to the Swedish Academy with McClelland where we heard the afternoon public lectures. Margaret Mead was Chairman and she called on Koestler who spoke on "Rebellion in a Vacuum" (in place of Ralph Bunche who couldn't attend the Nobel Symposium) and Klineberg who spoke on "Alternatives to Violence." In the discussion period two members of the youth group and two other young people severely criticized Klineberg's paper on the basis that they thought it was much too conservative and should have dealt with the avoidance of the violence of wars.

Our group then traveled by bus (I sat next to Monod, and Lederberg) to the Svenska Handelsbanken (across the street from the Grand Hotel) where we attended a reception and dinner in the executive dining area (guest list attached). I met and talked to Rune Höglund (President) and E. Lindström (Vice President) of Svenska Handelsbanken, a private institution with more than 500 branches throughout Sweden. At dinner I sat next to the hostess, Mrs. Höglund. Dr. Anders Osterling, a Swedish author and member of the Swedish Academy, sat on the right of Mrs. Höglund so I had the opportunity to talk to him. Nils Stahle spoke the traditional Swedish word of greeting at the beginning of the meal and near the end Mr. Höglund gave a little talk on behalf of the Svenska Handelsbanken, which included a discussion of the Swedish economy. After the dessert, because of my position to the left of the hostess, I gave the traditional little talk, "Tak för Matten" (Thanks for the food) on behalf of the guests. I attributed my assignment for this task to my Swedish background, thanked the officials of Svenska Handelsbanken for their hospitality and recalled their role in handing out the checks to Nobel prize winners, thanked them for the table gift to each of us (a charming hourglass), and thanked those responsible for the Nobel Symposium and suggested that the addresses of the participants be circulated so we could keep in touch with each other. We then rode back to Södergarn on the bus. I sat next to and became better acquainted with the poet, Wylan H. Auden.

[Following is an account of today's major activities at the Washington AEC office.

Information Meeting 947 (notes attached) was held, with Commissioners Ramey, Johnson, and Thompson in attendance. Commissioner Ramey was acting Chairman at this time. The most important subjects discussed were the following:

1. A proposed letter to the Department of Justice on the results of an investigation (copy attached). (John Vinciguerra obtained my concurrence on the letter when he saw me later in Europe.)

2. The matter of releasing an unclassified report on the Rocky Flats fire, resulting in a decision to destroy the existing draft and prepare a much shorter version.

3. Review of the information package on MILROW. (During the meeting, it was learned that DuBridge had called Thompson to say that he was going to release the Pitzer Panel Report that afternoon to Senator Gravel. The report was to be part of the information package. Hurried calls to DuBridge's office resulted in his agreeing not to release the report prematurely to Gravel.)]

Thursday, September 18, 1969 - Stockholm

At breakfast I sat at a table with Salam and Doxiadis. Doxiadis described to me his huge urban planning organization, which has 700 employees, is centered

UNCL. BY DOE
NOV 86

Dinner given at the Svenska Handelsbanken, September 17, 1969

<u>Guests from abroad</u>	<u>Country</u>
Aiken, H.D. Professor	USA
Auden, W.H. Dr	England/USA
Bruner, J.S. Professor	USA
Bruner, Mrs.	"
Caldor, N. Mr	England
Caldor, Mrs.	"
Castberg, F. Professor	Norge
Chagas, C. Dr	Brasil
Domíadis, C.A. Dr	Grece
Domíadis, Mrs	"
Gombrich, E. Professor	UK
Gombrich, Mrs	"
Guth, W. Dr	Germany
Harrison Brown, Professor	USA
Hayashi, Y. Professor	Japan
Klineberg, O. Professor	Canada
Koestler, A. Mr	England
Lasswell, H.D. Professor	USA
Lambo, T.A. Professor	Nigeria
Lambo Jr	"
Lederberg, J. Professor	USA
Lorenz, K.Z. Professor	Austria
Lorenz, Mrs	"
Malck, I. Academician	Tjeckoslovakia
McHale, J. Dr	USA
McHale, Mrs	"
Mead, Margaret, Dr	USA
XXXXXXXXXXXXXXXXXXXX	SMYKX
Monod, J. Professor	France
Pauling, L. Professor	USA
Pauling, Mrs	"
Pierce, J. Dr	USA
Pierce, Mrs	"
Pochitalin, I, Dr	USSR
Pregel, B. Dr	USSR/USA
Pregel, Mrs	"
Seaberg, G.T. Dr	USA
Tata, J.R.D. Dir.	India
Waddington, C.H. Prof.	UK

<u>Swedish guests</u>
Block, E. Tekn.lie.
Engström, A. Professor
Eriksson, K-E. Professor
von Euler, U. Professor
Gierow, K.R. Fil.dr.
Hedén, C.G. Professor
Lindqvist, Karin, Fil.stud.
Myrdal, G. Professor
Nilsson, S. Docent
Schou, A. Dir.
Schou, Mrs.
Segerstedt, T.T. Professor
Zotterman, Y. Professor
Österling, A. Dr

UNCL. BY DOE
NOV 86

Host and Hostesses

Höglund, R. + Director
Höglund, Mrs.
Lindström, E. Dir + Vice Pres
Lindström, Mrs.
Nyrén, L. Dir
Nyrén, Mrs
Stoupel, D. Dir
Stoupel, Mrs
Stähle, N.K. Envoyé - Vice
Stähle, Mrs
Tiselius, A Professor

Pres. - Sven Kurland

Vice Pres - Sven Kurland

Dir. - Sven Kurland

Envoyé - Sven Kurland

Ellevarin

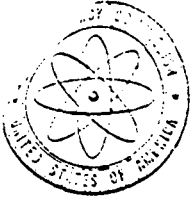
Sven Kurland

Eric - Sven Kurland

Walter

Sven Kurland

A letter to the... of the Svenska Handelsbanken



UNCL. BY DOE
N87 86

UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

COPY NO. 2
September 17, 1969

INFORMATION MEETING 947

11:10 a.m., Wednesday, September 17, 1969, Room A-458, Germantown

1. Western University Assciation Proposal re the MTR

Noted. (SECY) Note item by JLB on phone call from Vic Beard.

2. Commissioner Johnson's September 18 Meeting with the AIF Committee on Mining and Milling

3. Mr. Kratzer's September 17 Memorandum re Revised UK Aide Memoire to the United Kingdom Concerning Gas Centrifuge Problem

Approved with changes and a request. (AGMIA)

4. Mr. Kratzer's September 16 Memorandum re AEC Scientific Representative, Paris

Approved subject to concurrence by the Chairman and Commissioner Larson. (AGMIA-PER-SECY)

5. Draft Letter to the Department of Justice

Approved with an addition subject to concurrence by the Chairman and Commissioner Larson. (AGMA-S-SECY)

6. Planning for the Future of AEC's Uranium Enrichment Complex
(See September 12 Hand-out)

The General Manager reported briefly on status of this item in staff.

7. Release of the Rocky Flats Report

The staff recommendation is approved. (AGMA-AGMO)

8. Report on the Jorum Event

9. Status of the President's Approval of the Milrow Event

To be followed closely. (Bloom-AGM-AGMMA)

10. H. F. Res. 899 - Legislation to Suspend Nuclear Testing in the Aleutian Islands

11. Underground Testing Reports

Changes are requested and Commissioner Thompson and staff will discuss at the White House today. (AGM-AGMMA)

12. AEC 460/124 - Seventh Meeting of Inter-American Nuclear Energy Commission (IANEC)

Approved. Commissioner Ramey or Thompson will attend. (AGMIA)

13. AEC 293/108 - Soviet Bloc Travel By Sandia Corporation Employee

Approved. (AGMIA)

14. Information Meeting, 9:30 a. m., Friday, September 19, Germantown

Scheduled. (SECY)

W. B. McCool
Secretary

1:10 p. m.

PRESENT:

COMMISSIONERS:

Commissioner Ramey
Commissioner Johnson
Commissioner Thompson

STAFF:

Mr. Hollingsworth
Mr. Bloch
Mr. Brown
Mr. Hennessey
Mr. Bloom
Mr. Kull
Mr. McCool
Mr. Kratzer*
Mr. Abbadessa*
Mr. Vinciguerra*
Mr. Riley*
Mr. Quinn*
Mr. Kley*
Mr. Tesche*
Mr. Facer*

DISTRIBUTION:

Commissioners
General Manager
General Counsel
Secretary

*Attendance by topic (s).



UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

UNCL. BY DOE
NOV 86

October 2, 1969

Honorable J. Edgar Hoover
Director
Federal Bureau of Investigation
U. S. Department of Justice
Washington, D. C. 20535

Dear Mr. Hoover:

This will refer to your memorandum of September 3, 1969, in which you indicate that you are discontinuing the active investigation of [REDACTED]

We are, of course, fully aware of the extensive effort on the part of the Bureau in this case. The investigation, however, did not produce evidence which would provide AEC a sufficient basis either to revoke [REDACTED] security clearances under our established personnel clearance procedures or to bar him from further classified contract activity. For this reason, we felt it necessary to interview [REDACTED] with respect to the derogatory implications involved in the case. As has been previously reported to you and to Assistant Attorney General Yeagley, during this interview, [REDACTED] stated that he has never been requested to furnish, has never furnished, and would not, if asked to, furnish classified information to Israeli officials or to other unauthorized personnel.

In this regard the Attorney General, in his letter to the Chairman, AEC, on April 4, 1969, advised that the Department of Justice has no evidence which would support any action by the Department.

As a matter of interest, it is noted that the current classified contracts now held by NUMEC do not involve weapons information.

We will appreciate your continuing to keep us advised of any pertinent information concerning [REDACTED] which you may receive.

Sincerely,

/s/

William T. Riley, Director
Division of Security

in Athens, and has offices in cities all over the world with a second center in Washington.

I attended the morning session on "Free or Directed Research--A Choice for the Individual and for Society." Pregel was Chairman. The session opened with the playing of a satirical tape (criticizing the staid, rigid form of the Symposium) by the youth group.

Hayashi spoke on "Conscious and Unconscious Innovation," and King spoke on "Science Policy--Changing Concepts." King said he thought no country had a good working science policy, but each only did the best it could under a makeshift operation. Central allocation of resources for science does not seem to work. He referred to and described the Club of Rome. He called for a World Academy, consisting of leaders in the natural sciences, social sciences and humanities with emphasis on multidisciplinary backgrounds.

Tata then spoke and emphasized the need to get down to cases and deal with the world's problems, perhaps by issuing an appropriate statement. He emphasized the plight of people like those in Bombay and Calcutta and the need to deal with it.

During the coffee break I was interviewed (on tape) by Richard J. Litell of the U.S. biweekly newspaper Medical Tribune. I described the Fusion Torch concept and summarized the highlights of my talk on "Science, Technology and the Citizen."

At the next part of the session, with Harrison Brown as Chairman, Salam spoke on "The Advancement of Science for the Developing Countries," and Lasswell spoke on "The Prospects of a World University." He described this proposal. He also commented on the proposal for a "World Academy of Arts and Science" and indicated it was consistent with a World University. The World University would not have a single campus--it would have many campuses and would utilize special commissions to help mobilize and utilize knowledge. It would involve many fellowships and the participation of developing countries. Present proposals are interim steps to the ultimate goal of integrating the potential of man.

In the discussion period Gunnar Myrdal said the real aim of American students is to reform U.S. universities because much of the present research is supported by the State Department, DOD, and CIA and concerns chemical and biological warfare, etc. He is skeptical of the World Academy concept. All research is directed against the interests of the developing countries, e.g., the development of coffee substitutes. (Myrdal seems to be developing an increasingly strong anti-U.S. attitude.) He doesn't favor a World University, thinks we should work within our existing institutions.

I met at lunch and after lunch with a group to discuss coordination between the Nobel Symposium and the New York conference, "Environment and Society in Transition," to be held in April 1970. Present were Hedén, Bruner, Lasswell, Malek, Margaret Mead, Nilsson, Pregel, Tinbergen, and Waddington. There will be 100 attendees, 40 still to be chosen, and we will receive letters asking for suggestions. An honorary chairman is to be chosen and the names of David Blackwell and Carl Von Weizsacher have been suggested and we are to make suggestions. The problem of student participation needs to be worked out.

I gave Arne Tiselius a copy of a suggested draft for a Symposium statement (copy attached).

OUTLINE OF A POSSIBLE STATEMENT

The participants in the Nobel Symposium have noted with deep concern that today's dynamic civilization is producing change faster than we can understand it, adapt to it, or control it. Such change is producing ever-widening gaps, which, in turn, are creating conflicts and crises ever more difficult to deal with. These gaps are already threatening human society. They will grow as the tempo of change quickens. And unless we recognize their causes and deal with them rationally, they will become chasms that will engulf us completely.

We can see this vividly in the major challenges before us - in our efforts to avoid nuclear annihilation, in our dealing with environmental problems, in our efforts to control and feed the world's growing population, our struggle to plan our urban growth, to better organize our complex transportation and communications systems and to carry out all this within political, economic and social systems that would respect human rights and recognize the importance of human dignity.

And perhaps of even greater concern is the tremendous disparity in the standard of living among the peoples of our planet, with large segments struggling to subsist while others produce and consume well beyond their needs. This

situation exists during a period when mankind has the knowledge and power to achieve a satisfying, if not abundant, life for all of the world's population.

We, therefore, appeal to the world's political leaders, in recognition of the urgency of the situation, to turn their attention to these problems on a priority basis.

I met and talked to Professor Sven Brohult (Managing Director of the Swedish Academy of Engineering Sciences). He invited me to their anniversary meeting on October 24, but I told him that I would be unable to attend.

I participated in a taped interview for Swedish radio by Per Ragnarson, involving Mikhail D. Millionshchikov and Professor Bo Lehnert (Royal Institute of Technology in Stockholm) on the Fusion Torch concept and the progress in controlled fusion research in the United States, the Soviet Union and Sweden.

I then attended the afternoon discussion covering especially the concept of World University. Lambo felt his people would not favor it because of need to solve local problems; i.e., put more international spirit into local universities first. Doxiadis spoke in favor of the World University. Gombrich spoke eloquently about a need for focus for the Symposium, and he criticized the students' omnibus opposition to defense efforts, citing the Israeli-Egyptian problem as an example. Salam said birth control in poor countries is held back by need for children to support their parents in old age. He did say, however, that these people would use the birth control pill if it were available. Myrdal then rose to say he is not against the World University, but we shouldn't avoid the real issues which are the concentration of power, etc.--we should take up the fight to change the universities.

I was interviewed on tape by Mrs. Langren of Swedish Radio on the U.S. military-industrial complex, military control of research in the United States, etc.--I said that this is a much exaggerated and misleading view.

Arch Turrentine, Deputy Scientific Attache from the Embassy, delivered to me a package of papers that had just arrived from my U.S. AEC office.

I took an hour's hike on the Södergarn trails to Fagelöudde.

I read AEC papers before and after dinner, which I ate in the more or less deserted dining room. Most of the participants had gone to Stockholm to attend the Opera performance at the Drottingholm Court Theater.

[Following is an account of today's activity at the Washington AEC office.

Will Kriegsman of the White House staff called my office to say that the President's nomination of the U.S. delegation to the IAEA General Conference headed by me, had been sent to the Senate the day before.]

Friday, September 19, 1969 - Stockholm, Zurich, Prague

I rode to the Arlanda Airport with a driver, Owe Kinell, driving for Freys Hyrverk, a chauffeur firm hired by the Nobel Foundation--Södergarn. I then flew on Scandinavian Airlines Flight No. 411, leaving Stockholm at 8:45 a.m. Olof Bloom was at the airport to see me off. He had a present for Helen (purchased by Eivor, Tora, and Ingrid) which I asked him to mail. He gave me a present for Eric--a knife with a handtooled case purchased from a Lapp-Gubbe (Old Laplander). He told me that Tora's mother was a sister of my grandfather, Adolph Eriksson. He recalled our first meeting at a gathering of relatives at a restaurant in Stockholm on December 13, 1951. He is a friend of Lars Aldrin, a cousin of the U.S. astronaut, "Buzz" Aldrin.

I arrived in Zurich at 11 a.m., where I was met by my assistant Julie Rubin and Henry Engelbrecht (American Consul). Myron Kratzer, U.S. AEC Assistant

General Manager for International Activities, arrived a few minutes later on a flight from Brussels. We rode in a consulate car to the Restaurant zur Krone, in Regensburg. Here we met Urs Hochstrasser (formerly Federal Director for Atomic Energy Affairs, now Director of the Division of Science and Research), Andreas F. Fritzsche (Director, Swiss Federal Institute for Reactor Research, Würenlingen), Werner Züti (Scientific Director, Institute for Reactor Research), and Kunrat von Wurstemberger (Delegate of the Swiss School Board, Zurich) and had lunch with them. Professor Hochstrasser noted that Switzerland, which has largely depended on hydroelectric power in the past, is now turning to nuclear power for all of its new needs for electrical energy. In addition to its economic advantage, nuclear power is preferred by the Swiss authorities and public because it avoids the atmospheric pollution of coal or oil burning plants and the destruction of scenic river valleys that would result from new hydroelectric plants. It is of interest that the Swiss hold this attitude toward nuclear power despite the fact that Switzerland experienced several months ago one of the few reactor incidents severe enough to result in permanently disabling the reactor. The Swiss regard this incident, which involved a small experimental reactor, a reassuring demonstration of the safety of nuclear reactors, since all emergency safety systems functioned properly and damage was confined to the reactor proper with no release of radioactivity outside the containment structure.

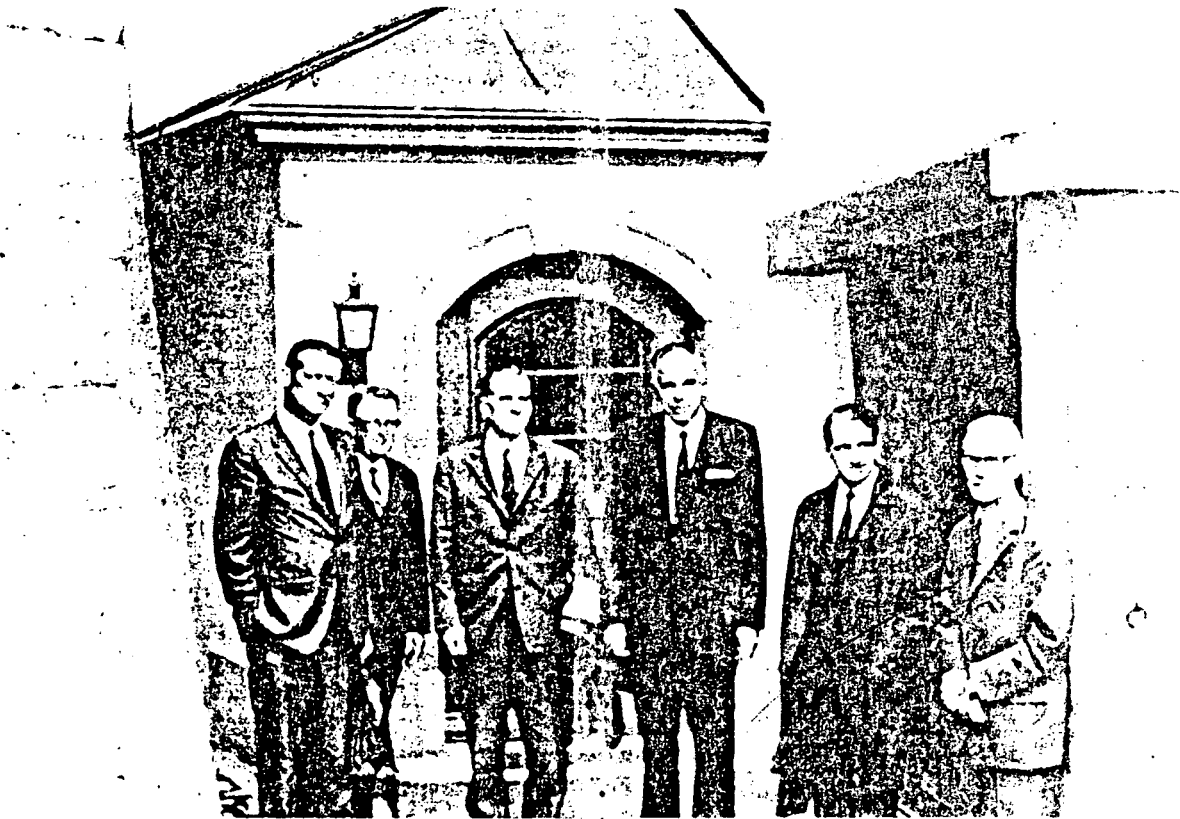
There was also some discussion of the prospects for the 300 Gev machine at CERN. Hochstrasser did not think the chances of going forward with this project were very good. Hochstrasser expressed interest in an exchange of information with the U.S. AEC on fast reactors. For the present they would like some general reports to form a basis for selecting areas of specific interest to include in a formal exchange agreement.

Following lunch we rode to the new campus of the Eidgenössische Technische Hochschule, ETH (Federal Institute of Technology). This has an one hundred million dollar construction program under way. We saw the Institute for Applied Physics, the Institute for Microbiology and the Institute for Nuclear Physics (of which Professor P. Marmier is the head). In the latter we visited the 12 Mev van de Graaff accelerator (a high voltage engineering machine). (See picture next page.)

Kratzer, Rubin, Engelbrecht, and I then rode back to the Kloten Airport, where we met Em Rubin. Engelbrecht saw us all off on our flight to Prague. The Rubins and I caught Czechoslovakian Airlines Flight No. 775, leaving at 3:45 p.m. and arriving at 4:45.

This seems an appropriate point for some brief remarks about Czechoslovakia's nuclear interests and U.S.-Czech relations in the field.

Officially initiated in 1955 with the creation of the Czechoslovak Atomic Energy Commission, the nation's modest nuclear program has been concerned primarily with basic research and with practical applications such as the use of radioisotopes in research, medicine, and industry, and the production of nuclear-associated equipment. The program is carried out by a number of scientific, governmental, and industrial organizations. Chief among these is the Institute of Nuclear Research at Rez, about ten miles north of Prague, which is operated under the direction of the Czechoslovak Academy of Sciences. The nation possesses large uranium ore reserves and has been a major supplier of uranium to the Soviet atomic energy program.



Visit to Federal Institute for Technology, Zurich; September 19, 1969.
L to R: M. B. Kratzer, H. Engelbrecht, K. von Wurstemberger, Seaborg, U.
Hochstrasser, A. F. Fritzsche.

Very soon after launching its nuclear program, Czechoslovakia--a power-deficit area during peak-lead periods--made plans for an ambitious nuclear power program to meet future needs. In the late fifties, work started on what was to be the nation's first nuclear station, involving a natural uranium fueled, heavy water moderated, gas cooled reactor. The site chosen for this 150 MWe facility, designated the "A-1", was Bohunice, north of Bratislava. Construction was undertaken by the V. I. Lenin Works (formerly the Skoda Works) Nuclear Power Division, located at Bolevec near Pilsen. Completion was originally scheduled for 1961. Construction was slowed by numerous difficulties however, and by 1969 the estimated completion date had been changed to 1971.

Czechoslovakia has engaged in international cooperative activities under a 1955 agreement with the Soviet Union (which provided some research equipment as well as early assistance for the Bohunice project) and also as a member of both the IAEA and the Joint Institute of Nuclear Research at Dubna in the U.S.S.R. Over the years many Czechoslovak scientists have visited the U.S. to attend symposia and conferences, to participate in discussions at U.S. AEC

facilities, and in some cases to work as temporary employees or guest investigators on projects being conducted under U.S. AEC contracts. American nuclear scientists have also visited Czech facilities. There has never been an Agreement on Cooperation between the U.S. and Czechoslovakia, however. At various times the possibility of arranging a Memorandum on Cooperation such as that in effect between the U.S. and the U.S.S.R., has been contemplated, but the political situation in Czechoslovakia following the Warsaw Pact invasion of 1968 clearly militated against any formal arrangements. Nevertheless, I was hopeful that eventually our limited cooperation could be broadened. I had enjoyed cordial contacts with Jan Neumann, Chairman of the Czechoslovak AEC (CSAV), and with other Czechoslovak representatives at the IAEA General Conferences and other international gatherings, and I was convinced that they too would welcome expanded collaboration if circumstances permitted. Early in 1969, in fact, Dr. Neumann accepted an invitation I had extended to him to visit us in Washington, tour various U.S. nuclear facilities, and possibly discuss the feasibility of a cooperative arrangement. But at the last minute, just a few days before he was to arrive in May, we were informed that he would be unable to make the trip at that time.

In connection with Czechoslovakia's projected nuclear power program, a delegation came to the United States in the spring of 1966 to visit nuclear power facilities here and learn about the U.S. program. Accompanied by their Ambassador to Washington, Karel Duda, the 13-man delegation visited U.S. AEC headquarters on May 6, 1966. Commissioners John G. Palfrey and Gerald F. Tape and I, with principal U.S. AEC officers and staff, met with them then to discuss some of the principal considerations preoccupying them. Although the delegation indicated during our meeting that it had not yet decided what reactor type would be best for their country's future nuclear stations, Czechoslovak interest continued for several years to focus on the heavy water type using natural uranium fuel. Aside from the fact that a reactor of this type was already under construction, the principal reason for their apparent preference was presumably the fact that their native resources would assure fuel availability without dependence on foreign enrichment. On the other hand, it presented the problem of heavy water supply. With this in mind, Dr. Neumann wrote me in November 1968 asking about the possibility of acquiring heavy water plant technology and equipment from the U.S. The question required careful study of many factors, including of course the safeguards aspect. At this time I am still not in a position to report any decision on this matter about which I feel sure Neumann will inquire. Meanwhile, however, the Czechs engaged in exploratory talks with the Lummus Company, an American firm specializing in the area of heavy water technology.

We (Kratzer, the Rubins, and I) were met by Neumann, Zdenek Stuchly (Head of Foreign Relations Department, CSAV), U.S. Ambassador Malcolm Toon, and William G. Warnell (Second Secretary, U.S. Embassy). (See picture next page.)

After some delay at the airport, our party proceeded to the International Hotel. I rode with Ambassador Toon, his daughter Nancy (an eighth grader), and Warnell.

In the evening we went to the residence of Ambassador Toon to attend a reception he hosted in my honor. Among those present were: Chairman Neumann, Mr. Pavel Novotny (Head of Foreign Relations Section, Federal Committee for Industry), Dr. Zdenek Trhlik (Deputy Foreign Minister), Akademician Frantisek Sorm (President of Czechoslovak Academy of Science), Karel Barabas (Secretary



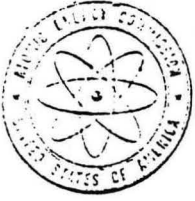
At the airport in Prague; September 19, 1969.

L to R: M. Abrahams, M. B. Kratzer, M. Toon, Seaborg, J. Neumann. Z. Stuchly, Mrs. J. H. Rubin.

General of CSAV), Dr. Stuchly, Dr. Augustin Sevcik (Head of Nuclear Energy Department, Federal Committee for Industry), Josef Hauer (Director of Nuclear Generator Plant, Skoda Works), Arnost Komarek (Chief Engineer of Nuclear Generator Plant, Skoda Works--he was a member of the 1966 power delegation), Dr. Jan Urbanec (Director of Nuclear Research Institute of CSAV, Rez), Professor Cestmir Simane (Chairman of Nuclear Physics and Technology at Technical University), Professor Zdenek Dienstbier (Head of Medical Faculty at Biophysical Institute of CSAV), Tibor Vasko (Federal Committee for Technology, and member of the 1966 delegation), Jaroslav Riha (International Organizations Department, Ministry of Foreign Affairs); U.S. Embassy officers John Baker, Mark Garrison, Andrew Falkiewicz, Carl Schmidt, George Ruechert, William Warnell, Theodore Russell, James Madden, and Donald Hanger; and my U.S. AEC group consisting of Kratzer, Rubin, and Melvin Abrahams of the U.S. AEC's Division of International Affairs, who is here to accompany us during our stay in Czechoslovakia. I spoke to Urbanec about visiting the Institute of Nuclear Research at Rez; he indicated that this should be possible but after he conferred with Neumann, I heard no more--such a visit apparently would present an official problem. We saw a movie of Apollo 11 mission with commentary in Czechoslovakian.

[Following is an account of today's major activities in the Washington AEC office.

Information Meeting 948 (notes attached) was held, chaired by Commissioner Ramey, with Commissioner Thompson and Johnson in attendance. Among the significant items discussed were: (1) an extremely critical letter from



UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

COPY NO. 2
September 19, 1969

INFORMATION MEETING 948

UNCL. BY DOE
NSV 86

9:35 a.m., Friday, September 19, 1969, Room A-458, Germantown Headquarters

1. Decoration of Commissioners' Germantown Offices

To be discussed with the Chairman and Commissioner Larson. (HQS-SECY)

2. Installation of Germantown North Lobby Flooring

Procedures for informing the Commissioners of proposed actions of this nature are requested. (HQS-SECY)

3. Agenda for the Week of September 22, 1969

Approved. (SECY)

4. NTS Events (See General Giller's September 18 Memorandum)

Noted. (AGMMA)

5. September 11 Letter from Congressman Dingell re Fish and Wildlife Refuges on Amchitka Island

A response is in preparation. (AGMMA)

6. Press Procedures re Weapons Tests

To be reassessed and discussed with the Commission. (AGMMA-PI)

7. September 11 Letter from Senator Inouye re Testing at Amchitka

The staff briefed Senator Inouye on Monday, September 15 and are preparing a response to his September 11 letter. (AGMMA)

8. Underground Testing Report

Commissioner Thompson reported on his September 17 meeting with White House Staff, Messrs. Whitehead and Kriegsman, who requested publication of the report prior to Milrow. Sections on Test Procedures and NVOO 40 - Technical Discussion of Off-Site Safety Program for Underground Nuclear Detonations are to be added and release is planned for September 26. (AGMMA-PI)

9. Status of Presidential Approval of Milrow and Announcement re Milrow

Noted. (AGMMA-PI)

10. Staff Report of September 11 Earthquake (Southeast of Amchitka) and Volcanic Action in Kiska

Further information is requested. (AGMMA)

11. Rules re Restricted Access to Amchitka Test Vicinity

Staff reported this question is under study. (AGMMA-GC)

12. Commissioner Johnson's September 18 Meeting with the AIF Committee on Mining and Milling

Staff planning is noted. (AGMP&P)

13. AEC 1283/55 - Construction Budget Restrictions (See also Dr. DuBridges's September 17 Memorandum to BOB Director Mayo re the 200 BEV Accelerator Project)

Noted. (OC)

14. Funding of Pioneer and Viking Programs (See Controller's September 18 Proposed Reallocation)

Staff is to discuss with Admiral Rickover and proceed accordingly. (OC)

15. Mr. Hennessey's September 16 Memorandum re Picker Corporation Application for Compulsory License of Anger Patent

Approved. (GC-SECY)

16. Department of Justice Filing re the Rulison Event

Approved. NVOO is to be alerted. (GC-PI)

17. AEC 1318/5 - Proposed Letter to BOB re S. 2752

A revised letter to the BOB is approved. (GC-Bloom-SECY)

18. AEC 1318/6 - S. 7 Muskie Bill

Discussion with the Joint Committee staff is requested. (GC)

19. Mr. Kratzer's September 19 Memorandum re Plutonium for Japan

The NUMEC proposal is not to be accepted. (AGMIA-OC)

20. AEC 1311/18 - FY 1971 Major Program Issues

Approved. (OC)

21. Mr. Harris' September 18 Memorandum re Public Announcement on Project Rulison Effect

Noted. (PI)

22. September 18 Nucleonics Week Issue re September 11 Vermont Meeting

23. Monticello Nuclear Generating Station; Suit Contesting State Regulation of Radiological Safety Matters (See Mr. Hennessey's September 2 Memorandum)

Mr. Hennessey reported on discussions this week at the Department of Justice and the Commissioners agreed there should be no U. S. Government intervention at this time and will discuss this matter with White House staff at an early date. (GC-SECY)

W. B. McCool
Secretary

11:30 a. m.

PRESENT:

COMMISSIONERS:

Commissioner Ramey, Atg. Chm.
Commissioner Johnson
Commissioner Thompson

STAFF:

Mr. Hollingsworth
Mr. Bloch
Mr. Abbadessa
Mr. Hennessey
Mr. Bloom
Mr. Kull
Mr. McCool
Gen. Giller*
Mr. Tesche*
Mr. Little*
Mr. Harris*
Mr. Stokely*
Mr. Quinn*
Mr. Anderson*
Mr. Schur*
Mr. Rowden*
Mr. Crawford*
Mr. Buck*
Mr. Kavanagh*
Mr. Klein*
Mr. Friedman*
Mr. D. Hoyle*

DISTRIBUTION:

Commissioners
General Manager
General Counsel
Secretary

*Attendance by Topic (s)

Michigan Congressman John Dingell in which he accuses the AEC of not having provided his subcommittee on fish and wildlife with full information on the planning connected with nuclear tests on Amchitka Island and implying that the AEC has not obtained the approval of the Department of Interior for the conduct of such tests; (2) a letter from Hawaiian Senator Daniel Inouye (copy attached) expressing his concern about the possibility of tsunami reaching Hawaii from the MILROW test; (3) a report by Commissioner Thompson concerning his meeting with Mr. Whitehead and Mr. Kriegsman of the White House staff on September 17, during which a review was made of the information to be released prior to the MILROW test. At this meeting, it was decided that in addition to the Pitzer Panel Report, information showing the anticipated safety of the test would be included also, and would be presented as a single document for release on September 26; (4) an extended discussion of ways of obtaining funding for the development of a radioisotopic generator for the NASA Pioneer and Viking space exploration programs. (The General Manager proposed that the \$2 million required be obtained by reprogramming money from within the Space Nuclear Systems Division. The Commissioners did not agree with this approach and requested that an effort be made to convince Admiral Rickover to reduce his program by \$1 million, with the remaining \$1 million to be taken from the SNS program.); (5) discussion of AEC comments to be made on several bills pending before Congress on environmental control, particularly S. 2752 and S. 7 (the Muskie Bill); (6) consideration of a proposal from NUMEC that it be permitted to bid on supplying plutonium to Japan on the basis that the AEC would furnish plutonium at a price lower than \$43 per gram. (The Commission decided that there was insufficient time available--because of the NUMEC deadline--to consider the proposal and it was therefore rejected.); and (7) discussion of the suit which has been instituted by Northern States Power Company to enjoin the state of Minnesota from employing state regulations of radioactive effluents from the Monticello nuclear generating station. (The Commission decided that the AEC should not attempt to intervene in the law suit because it is uncertain as to what the position of the Administration is regarding states rights and the "new Federalism."

A Mr. Joseph F. Sharfsin of Philadelphia (Chairman of the Nuclear Division of Capitol Pipe and Steel Products, Inc.) visited my office to obtain information about defense priority ratings on stainless steel used for nuclear power plant construction. Justin Bloom met with him in my absence.]

Saturday, September 20, 1969 - Prague

I had breakfast in the International Hotel dining room with Abrahams, Kratzer, and Rubin. We were met by Schmidt and Warnell and rode in two Embassy cars to the Czechoslovak Atomic Energy Commission, Sleszka 7, Prague-Vinohrady, where I gave my talk on "New Outlook for the Transuranium Elements," illustrated with slides and followed by a question and answer period. About 50 people attended the lecture.

I then rode to Pilsen in a Czechoslovakian Tatra with Neumann and Stuchly. Rubin, Kratzer, Warnell, Schmidt, and Abrahams followed in two Embassy cars. We passed through Neumann's birthplace on the way, in the village of Rudna. We saw his childhood home and his grandmother's farm. We also passed the gymnasium where he went to school for eight years in the town of Beroun. We passed some rather large collective farms. Neumann told me that Andronik Petrosyants is head of a central committee which runs the atomic energy programs in all the Eastern countries.

United States Senate

WASHINGTON, D.C. 20510

UNCL. BY DOE
NOV 86

September 11, 1969

The Honorable Glenn T. Seaborg, Chairman
Atomic Energy Commission
Washington, D. C.

Dear Mr. Chairman:

I am writing to express my concern over the proposed underground nuclear testing to be conducted on the Island of Amchitka in the Aleutian Islands. From the information I have received I understand that the Atomic Energy Commission expects to detonate a series of multi-megaton nuclear devices in the Aleutian chain, the first of which is expected to be detonated early this fall.

As a result of the concern of the residents in my State as well as the welfare of the citizens in Alaska and other States on the West Coast, I have attempted to gather information on these proposed tests and their expected effect on the seismic activity in the Aleutian chain. Unfortunately, I find that information surrounding the exact date of these tests and the size of the blast is shrouded in secrecy. Of grave importance is the lack of information available to the public to dispel our fears and adequately convince us that necessary precautions and investigations have been undertaken to insure that a natural disaster will not result from the tests scheduled to be conducted on Amchitka.

As you are aware, a sizeable body of scientific opinion has presented data linking underground nuclear tests with measurable seismic activity. This material was presented at the April, 1969, meeting of the American Geophysical Union held in Washington, D. C. The data presented by some of these geophysicists was primarily based, as you know, on the "Boxcar" blast with a yield of 1.2 megatons and the "Benham" blast with a yield of 1.1 megatons, both blasts being 50 times more powerful than the atomic blast that devastated Hiroshima at the end of World War II. According to this data, the "Boxcar" test caused a medium-sized earthquake and caused a fracture in the hard rock 4,000 feet from the site. In other words, according to a number of scientists,

these underground nuclear blasts can trigger earthquakes. It is granted that some have discounted this theory. However, others have asserted that it is likely that as the yields of the tests increase, the after-effects, i. e. seismic activity, will also increase. I have received indications that from the activities at the Amchitka test site and the depth of the test holes, it would be possible to detonate as large a device as 5 megatons in force. Since the "Boxcar" and "Benham" tests may have caused measurable seismic activity, the possibility of equal or higher yield tests at Amchitka triggering greater seismic activity would appear a distinct possibility.

While I am deeply concerned with the secrecy in which these tests are shrouded, the particular area which has been chosen also raises a number of serious questions. It has long been established that a portion of the Aleutian chain of which Amchitka is a part is an area of great seismic activity. As you know, it is considered one of the earth's most seismically active areas. As I have stated, a number of scientists believe that nuclear underground tests can trigger earthquakes. As you are aware, tidal waves or tsunamis are principally caused by underwater earthquakes with vertical ground movement. While tsunamis in the open sea may be only a few feet high, upon approaching a coast line they assume formidable proportions with waves reaching 30, 40 and sometimes 50 feet. My State of Hawaii is particularly aware of the dangers of such tsunamis. A 1946 earthquake in the Aleutians produced a tidal wave which upon reaching Hawaii produced waves measuring 45 and 55 feet. This tsunami took the lives of 173 men, women and children with property damage estimated at \$25 million. Tidal waves also hit Hawaii in 1952 and 1957. Luckily no lives were lost; however, the damage resulting from these two waves was estimated at \$800,000 and \$3 million respectively. Another tidal wave which originated in the Aleutians hit the shore of Hawaii in 1960 and despite the existence of a tidal wave warning system, 61 lives were lost with damage estimated at \$25 million. It is, therefore, evident that even the remote possibility of a tsunami being triggered by an underground nuclear test is of grave concern to the people of my State.

A report the Atomic Energy Commission released entitled the "Safety of Underground Nuclear Testing" stated that "The Amchitka test area merits special mention because it is located near one of the earth's most seismically active regions. Inasmuch as earthquake mechanisms

are not completely understood, no absolute statements can be made about the possibility of triggering an earthquake of large magnitude in this area." This statement offers little comfort to the people of my State, since underwater earthquakes are a principal natural cause of tsunamis. It forces me to question seriously the decision to proceed with these tests.

In an attempt to evaluate all the available data on the triggering of earthquakes as a result of multi-megaton explosions and the possible resulting destructive tsunamis, I have gathered and studied the available information. Despite your agency's statements to the contrary it seems clear to me that the real effects of these tests are unknown. While the Atomic Energy Commission attempts to reassure the public that no damaging effects will result from these tests, I am frankly not convinced. All too often your agency resorts to the use of such words as "highly improbable", "possibility remote", etc. However, these opinions would still leave possible room for disaster. While I am not suggesting that I know or can better evaluate the data than those scientists employed by the Atomic Energy Commission, it would seem to me that those evaluating the data there are intrinsically involved with the actual testing at Amchitka itself. It is not that they are unconcerned with safety, but rather that they are not impartial judges. As Dr. Kenneth Pitzer, President of Stanford University, former research director of the Atomic Energy Commission, and until January, Chairman of the President's Scientific Advisory Committee stated:

The problem in this case is not that the risk is completely ignored; rather that it has been examined primarily in closed circles with the effective judgement rendered by officials committed to the test program. To be sure, the President makes the final decision on a nuclear test, but by that time all preparations have been made and there is enormous pressure on him to go ahead. This sort of problem should be considered at an earlier date by an impartial judge and jury.

Therefore, I am contacting you as the head of the Atomic Energy Commission to urge the postponement of the underground nuclear tests

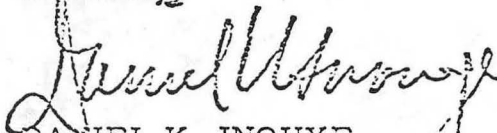
The Honorable Glenn T. Seaborg

- 4 -

September 11, 1969

in Amchitka until a group of scientists unrelated to the work of the AEC have been able to more fully evaluate the available data. Too many questions have arisen to be ignored. In light of these real apprehensions, the multi-megaton nature of the tests, the possibility of seismic activity being caused by such tests, the location of Amchitka in one of the world's most active seismic areas, I believe and urgently urge that these tests be postponed in order for an independent study to be conducted to more carefully weigh the possibility of devastation and death to the citizens of Hawaii and those of other Pacific coastal areas.

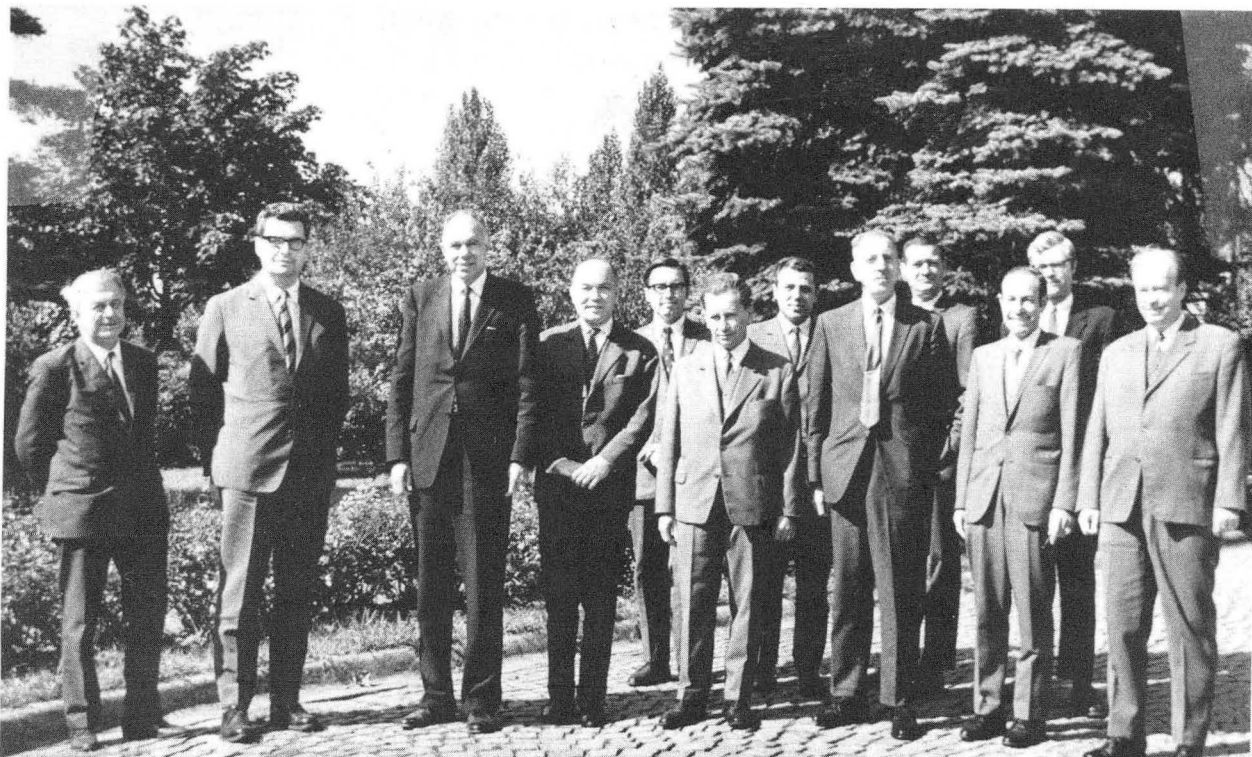
Sincerely,



DANIEL K. INOUE
United States Senator

DKI:jmp

We had lunch in Pilsen at one of the guest hotels of the Skoda Company. Josef Hauer presented me with a case of wine glasses and Neumann presented me with a beautiful glass vase. I presented a cigarette lighter to Hauer during a little thank-you speech. Also attending the lunch were Arnost Komarek and a personal interpreter for Hauer.



Visit to Skoda Company in Pilsen; September 20, 1969.

L to R: A. Sevcik, A. Komarek, Seaborg, J. Neumann, W. Warnell, J. Hauer, Z. Stuchly, J. H. Rubin, M. B. Kratzer, M. Abrahams, C. Schmidt, unidentified Skoda official.

We then all rode to the Skoda plant, V. I. Lenin Works, Nuclear Power Division, at Bolevec. Our first introduction was to Mr. Stanislav Havel, the Director of Development. The first area visited was a rupture test facility for pressure vessel materials. A special machine was described that had a yield strength capacity of 9,000 tons which was reported to be one of the largest in the world. A sample piece of material on test was carbon steel plate about three to four feet long by three feet wide and one inch thick with a welded seam down the center. This material was similar to the low carbon steel used for the reactor pressure vessel and was reported to be unclad with a tensile strength of 2200 kg/cm². The Skoda Works can manufacture pressure vessels eight meters in diameter and capable of withstanding up to 100 atmospheres of pressure. Such vessels, we were told, would be suitable for 500 MWe plants.

Our next stop was at a building where vessels for the petro-chemical industry are fabricated. A vessel partially completed had about the overall dimensions of a reactor pressure vessel (an eyeball estimate was six inches thick by 15-20 feet diameter and a curved dome section of special alloy steel). For the welded portions, they said they used a Soviet electro-slag technique also used on the reactor vessels.

A sketch of the pressure vessel for the Bohunice reactor was on display in this building. It indicated a total empty weight of 30 tons, 4.5 meters diameter, 6 meters tall, design inlet pressure of 65 kg/cm², and outlet pressure of 55 kg/cm².

An annealing furnace was at one end of the same building. It was described as specially constructed for field assembly and heat treatment of the reactor vessel with a range up to 900° C while holding a normalized temperature throughout the vessel of ± 7° C. We were told that Chicago Bridge and Iron Company had expressed interest in possibly obtaining a license for the design of this furnace. Our guides explained that it could be broken down into some twenty sections for transport and reassembly at the reactor site. This particular furnace was the one that had been manufactured at the plant, disassembled and assembled for use at the reactor site and had now been returned to the Skoda Works.

Our hosts volunteered the information that it took about three years to fabricate the reactor vessel after receipt of the steel plates. They said that the Bohunice power reactor project had been conceived in 1958 in the U.S.S.R. but the research was not far advanced at that time. A full-scale model of the pressure vessel was started in 1963 by the Skoda Works and the actual vessel for the Bohunice station started in 1965. The plant is now scheduled for startup in 1971.

Our next stop was in a new building where they had a carbon dioxide thermal loop for testing major reactor components under actual operating conditions. From the description of the work at this location, in fact, we inferred that they had tested the actual Bohunice reactor components here prior to shipment to the reactor site. The operating conditions of the loop were reported to be the same as the operating conditions of the Bohunice reactor; the loop has an expansion capability for advanced designs.

This completed our tour of the main Skoda Works. We then went by car to a new location across town where the turbine manufacturing operations were conducted. Our first stop was at a small aerodynamics laboratory. Dr. Karel Stepanek described the operations at this facility. The principal activity involved evaluation of the flow of gas through the fuel channels. A number of fuel elements were displayed with different finned arrangements to direct the gas flow. It was noted that compressed air was being used as the test medium rather than carbon dioxide.

Following the brief stop at this laboratory we proceeded to a different building which was an extremely large hangar type structure where the turbines were manufactured and assembled. Josef Drahy, Head of Development and Research Section, who visited the U.S. as a member of the 1966 power delegation, escorted the group through this facility. The statement was made that there was manufacturing capability for 3000 MWe per year at this location. The standard design turbine was 200 MW; they have under way the design for a 500 MW machine and reported a physical capacity for a 1000 MW turbine. Drahy stated the factory manufacturing time for a 200 MW turbine was six months but that the actual time from original order to delivery was about 30 months.

After completing the tour of the turbine building, we went to a building where they tested the major components for each turbine. This facility contained a series of cells that were independent and heavily shielded. Each major

turbine component is tested under 15% overload conditions (it was noted the main rotor is the 300 RPM standard design). Test facilities were inspected for the various size blade assemblies attached to the main rotor. These are tested both in a vacuum and in air. We saw liberal pro-Dubcek signs on the walls.

The Czechs are obviously justifiably proud of the Skoda Works which, although not up to Western standards, is still a first-rate manufacturer of heavy machinery and electrical goods. After the visit to the Skoda Works we drove back to Prague.

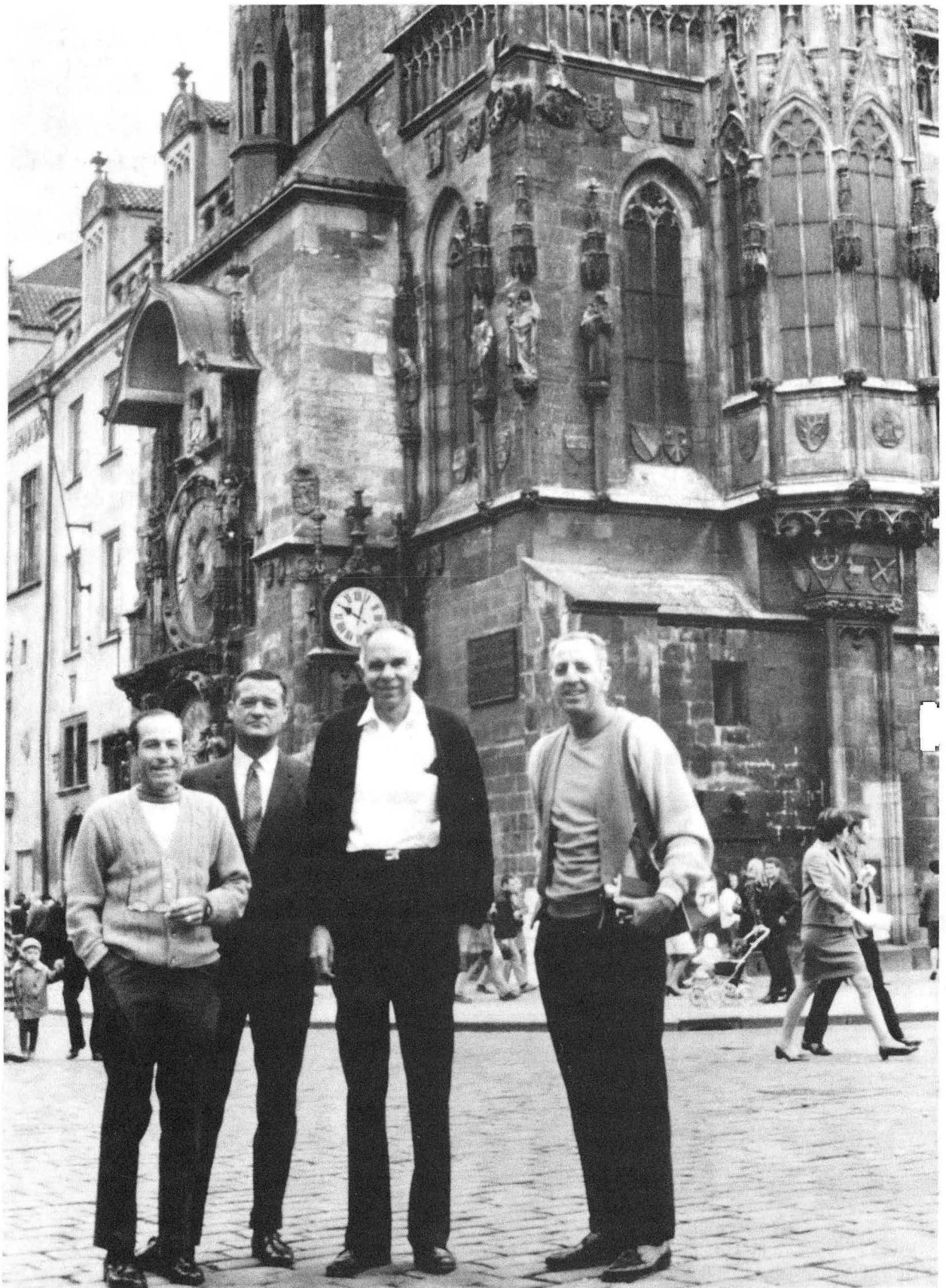
Kratzer, Warnell, and I had dinner at the U Labuti (At-the-Swan) Restaurant with Neumann, Stuchly and Urbanec. We had a discussion of the merits of the Czechoslovakian program based on heavy water reactors. We expressed doubt that being independent (through use of natural uranium) is worth the price that they are paying--we suggested they seriously consider light water reactors. They told us they could take advantage (i.e., would be allowed to) of our heavy water technology if we offered it. They very much want to be independent. Stuchly pressed us on why the U.S. wouldn't furnish Czechoslovakia information on heavy water production technology. In discussing their interest in this form of assistance, Professor Neumann and his colleagues referred repeatedly to their desire to achieve a measure of independence. They said they recognized the need to be "realistic," but they claimed that it would be possible for them to accept this form of assistance from the U.S. My response was that the U.S. had not ruled out the possibility of licensing the export of this technology (which is being done in the case of Romania), but that, for reasons they could appreciate, we could not reach an affirmative conclusion at this time.

After dinner we walked to the nearby Prague Castle (started in 890 A.D.) now the Presidential Palace (Hradcany) where we had a good view of a part of Prague--The Little Town, St. Nicholas Church, Museum of Bohemia, St. Vitus Cathedral, St. George Basilica were nearby.

Sunday, September 21, 1969 - Prague; to Bratislava

Kratzer, Abrahams, Rubin, and I had breakfast in the hotel restaurant. We then joined Warnell in an Embassy car and drove around town for a sightseeing tour.

We drove by Mala Strana (Little Town) Square which includes St. Nicholas Church. Nearby was the Schönborn Palace which is now the U.S. Embassy. It was built by a Swedish count, Colloredo-Mansfeld, in 1643-56. Now owned by the U.S., it contains over 100 rooms, including the Embassy offices and 15 apartments for staff. We visited the huge grounds and climbed to the top where we had a marvelous view of Prague (we took pictures and movies from this point). We drove across the Vltava River to the New Town, passing the Czechoslovakian Academy of Science on the way. We visited Wenceslaus Square (a commercial center and scene of many demonstrations)--we took pictures and movies here. We then went by the Powder Tower (a gate to the city and former storehouse for powder) and the community hall. We went by Universitas Carolina (Charles University), founded in 1348, the oldest university in Central Europe, situated at the Old Town Square. We visited the Old Town Square where at 10 a.m. we saw the clock display at the Old Town Hall. We saw the section burned out by the Nazis on May 9, 1945, which has been left as it



At Old Town Hall in Old Town Square, Prague; September 21, 1969.
L to R: M. Abrahams, M. B. Kratzer, Seaborg, J. H. Rubin.

was as a memorial. We saw the 500-600 year-old buildings in the Square, as well as an old patrician house which had had many facades removed down to the approximately 900-year-old level. We saw Tyn Church. A large statue of Jan Hus dominated the Square.

We then drove to the Institute of Nuclear Research of the Czechoslovakian Academy of Science at Rez, some 15 kilometers from Prague. (See picture below.) Here we met Dr. Tomas Tethal (an analytical chemist) who said he had been asked by Dr. Jan Urbanec to meet us and said, with some hesitation, that he would show us around if we wanted. But since he seemed uncertain, and since Urbanec wasn't there (and probably didn't have permission from Neumann to provide for a visit by us to Rez) we decided not to tour the Institute. The question of whether we should be permitted to tour the Institute at Rez had apparently become an issue--we had not been invited to do so as part of the itinerary that had been set up for us prior to our arrival in Prague and discussions between Neumann and his staff subsequent to our arrival seemed to confirm this reluctance toward such a visit. There were four or five buildings with an additional building or two under construction toward the back of the grounds. We took pictures and movies. We speculated on the reasons for the evident Czech reluctance to let us visit the Institute. Later, a member of the Czech nuclear energy staff informed us that they had "done all they could" to arrange the visit.



Outside Institute of Nuclear Research of Czech Academy of Science, Rez;
September 21, 1969.

L to R: M. Abrahams, T. Tethal, Seaborg, J. H. Rubin, M. B. Kratzer.

We then drove back to the International Hotel in Prague. After lunch, the entire group (Kratzer, Julie and Em Rubin, Mel and Ruth Abrahams, Neumann, Stuchly, Sevcik, Warnell, and I) left for Bratislava. We stopped at Kutna

Hora to see St. Barbara's Cathedral; building of this started in 1388 and construction continued through the 15th century--also there is substantial more modern construction. The first construction is in early Gothic style. Kutna Hora is an early silver mining site, with its peak activity in the 14th and 15th centuries.

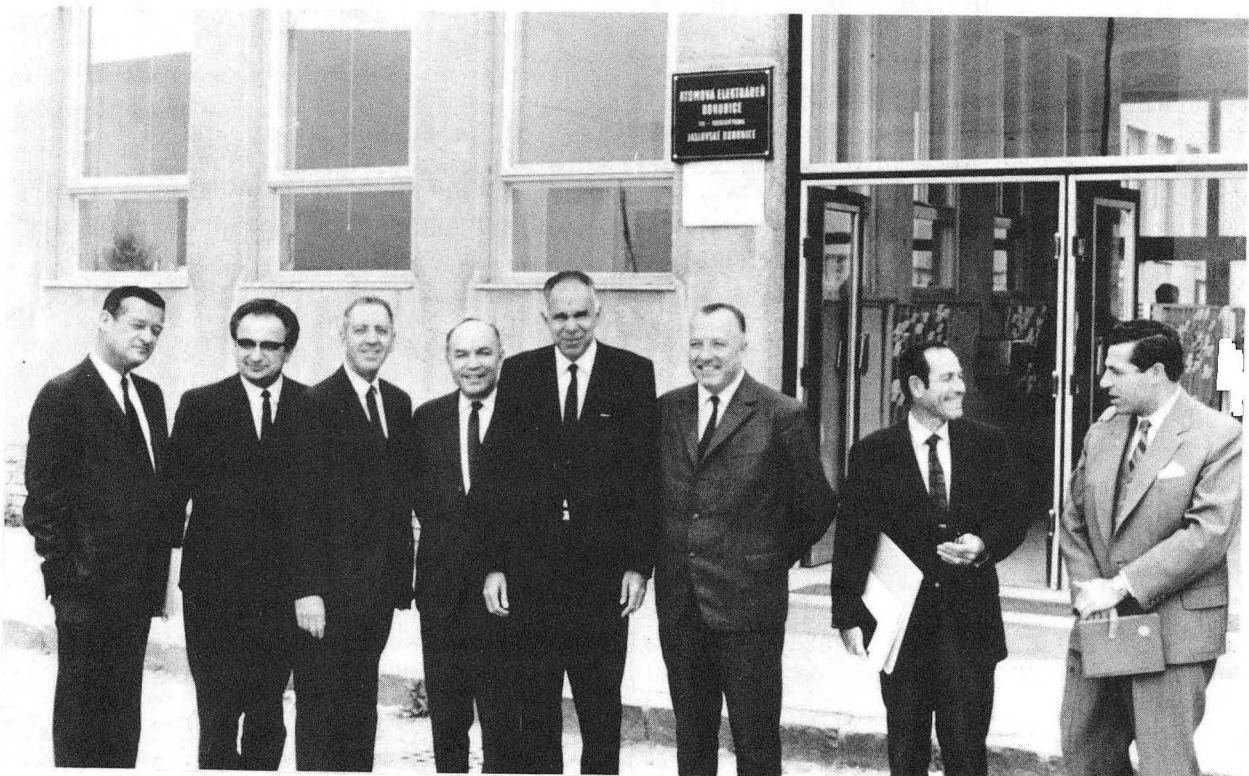
We saw a sign in the town of Caslav that said "Wake up Lenin, Brezhnev has gone mad."

After a rest stop in Brno, I rode on with Neumann and we talked about many matters. He told me that he hopes to accept my invitation to come to the U.S. next year. He said that the "Federalization" that took place at the beginning of this year has led to a duplication of authority, that affects the Atomic Energy Commission, economic conditions, and everything else so adversely that he thinks it can't last.

In Bratislava we checked into the Hotel Devin, overlooking the Danube River. The whole group had dinner in a private dining room, hosted by Kristian Kostovsky, Director of the Bohunice Nuclear Power Station. Present were: Neumann, Stuchly, Sevcik, Kostovsky, Kratzer, the Rubins, the Abrahams, and Warnell. We all spent the night at the Devin Hotel.

Monday, September 22, 1969 - Bratislava; to Vienna

I rode with Neumann and Stuchly to the Bohunice Nuclear Power Plant (about 70 kilometers), followed by the others in one of our Embassy cars. We were met by Director Kostovsky who took us to a conference room where we met Anton Cerny (Deputy Director, Economics), Viliam Spetko (Deputy Director, Research), Leonid Pestov (Chief of Department) and Zdenek Andrlle (Skoda technical liaison). The reactor project, which has been under way for longer than any



Visit to Bohunice Nuclear Power Plant, Jaslovske, Bohunice; September 22, 1969.
L to R: M. B. Kratzer, V. Spetko, J. H. Rubin, J. Neumann, Seaborg, K. Kostovsky, M. Abrahams, Z. Stuchly.

other similar project in the world, is very complex. Originally undertaken with extensive Soviet assistance, it has for several years been almost entirely a Czech undertaking, probably because work on the heavy water reactor concept was essentially abandoned in the Soviet Union, as it has been in the U.S. Although the Czechs have made substantial progress on their own in this difficult project, the project is clearly too ambitious and complex for their limited technical resources. It is my judgment that the reactor, which they now claim will be completed by the end of 1970, will probably ultimately be made to work, but only after more difficulties and delays than the Czechs now anticipate.

We toured the reactor facilities which were located about 500 yards behind the administration building at the entrance gate. Our first stop was in the main turbine hall. They are using three 50 MW turbines to deliver the total 150 MW of power. The size of the 50 MW turbines and particularly the condensers seemed extremely large compared with designs you might find in the U.S.

Our next stop was at the compressor and blower system for the gas coolant of the reactor. We learned they are using 30 MW of power for the blower system and another 10 MWe for other auxiliaries. Six loops are being used. From this area we walked up about seven stories (there were no elevators observable) through fairly dirty and confining concrete stairways and corridors. The quality of the concrete work appeared to be poor. We inspected the control room which appeared to be well laid out with fairly modern small indicators for the instrumentation. After looking at the control room, we returned to the ground level where it was explained the reactor proper was entirely below ground with the lowest level at minus 17 meters. It was again explained that the reactor vessel was brought to the site and the various sections welded in place and then annealed in the special furnace that we saw at the Skoda works. From the main reactor building we proceeded to an adjacent facility that appeared to be a machine shop and general assembly area for some of the major components. At this location we saw the main calandria and the head for the reactor vessel.

After the tour we returned to the conference room where we were served a snack. I gave a plastic enclosed uranium desk piece to Kostovsky and autographed copies of America's Wonderlands to Kostovsky, Cerny, Spetko, and Sevcik. I gave Pestov and Andrlé each an autographed copy of Elements of the Universe and a "Seaborg on Science" record, and a "Seaborg on Science" record to the interpreter. We then rode back to the Hotel Devin.

We picked up our luggage and proceeded in three cars to Vienna. Neumann, Stuchly and Mrs. Zdenek Nejedly, wife of the head of the Czechoslovakian mission in Vienna went in Neumann's car, Kratzer and I in one U.S.-Austrian Embassy car--driven by Burgeth--and the Rubins in the other U.S. Embassy car. The Abrahams returned to Prague; they will rejoin us in Bucharest.

We passed through the "Iron Curtain," double barbed wire fence with guard posts, and through the Czechoslovakian and Austrian visa check points. Soviet troops and military vehicles in Czechoslovakia are kept well concealed, and we saw only two troop carriers during our visit, despite our lengthy drives through the countryside to nuclear installations. We saw many painted pro-Dubcek slogans, although we were told that such slogans are painted over promptly wherever they appear. Throughout our visit we had the feeling that the Czech officials whom we met were still making their sympathies and desires for closer ties with the West clear, although in a guarded and indirect manner. (Copy of State Department cable covering my visit to Czechoslovakia is attached.)

AIRGRAM

Original to be Filed in _____ Decentralized Files

FILE DESIGNATION

A-356

DATE AND INDICATOR

~~Department of State~~

FROM Embassy PRAGUE

DATE October 2, 1969

SUBJECT : Visit to Czechoslovakia of USAEC Chairman Glenn T. Seaborg

REF Prague 2852

Sci

PASS USAEC

SUMMARY: Chairman of the United States Atomic Energy Commission Glenn T. Seaborg visited Czechoslovakia from 19-22 September 1969 at the invitation of Chairman of the Czechoslovak Atomic Energy Commission (CSAEC) Jan KUCERA. During the visit, Chairman Seaborg addressed scientists at the CSAEC in Prague on trans-uranium elements and visited the Nuclear Generator Construction works at the Skoda Works in Pilsen and Bolevec and the still uncompleted Czechoslovak AI reactor at Bohunice in Slovakia near Trnava. During the course of the visit, the Czechoslovak hosts asked whether there was any possibility that they might obtain U.S. technology to assist them in building their own heavy water plant. They were told that such a possibility was unlikely for the near future.

Dr. Seaborg and his party Mr. Myron Kratzer, Assistant General Manager for International Activities of USAEC, Mr. Julius Rubin, Special Assistant to Dr. Seaborg, and Mrs. Rubin -- arrived as scheduled on CSA flight 775 from Zurich on Friday, 19 September. Mr. Kelvin Abrahams of the International Activities Division of USAEC and Mrs. Abrahams had arrived the previous day to coordinate arrangements for Dr. Seaborg's visit. Dr. Seaborg and his party were met in the government reception lounge of Ruzyně airport by

MORE

Enclosures:

1. Coskoslovenska Atomova Elektraren
2. Skoda Review
3. Packet of postcards.

FORM 8-60 05-121

POLEC: KGWarnell/arb

10/1/69

POLEC: KGarrison

OCT 3 PM 2 31

COPY FLO-118

We therefore left Czechoslovakia with a feeling of some optimism about the chances of expanded bilateral cooperation in peaceful nuclear applications. (Our hopes, however, seem to have been ill-founded. Our limited collaboration has continued along the same lines as before. With respect to their nuclear power program, the Czechs soon gave up their thought of acquiring a heavy water plant and technology from the U.S.; however, the Bohunice A-1 reactor became critical in 1972.)

As we rode on to Vienna we passed by many Roman ruins, a rather well-kept amphitheater, remnants of living quarters, long sections of well-preserved walls, etc.

Kratzer, Rubin and I rode to the Intercontinental Hotel, where I checked into Suite 1242-44. We then went to the IAEA Mission Headquarters at 14 Schmidtgasse where I found Helen Gearin (my secretary) at work. I read the various cables, picked up a large package of mail from Washington, made decisions on acceptances of invitations and talked to my other secretary, Marie Janinek, and Ed Bloch (Deputy General Manager, USAEC) on the phone in Washington, D.C. Marie told me everything is okay at home. Ed told me the White House still wants to release the Pitzer Panel Report, together with a complete USAEC explanatory statement, before the MILROW shot, which is now scheduled for October 2 (the device has been placed down hole). The staff is also working on the calculations related to the President's decision on the future operation of the gaseous diffusion plants. The mail from Washington includes a request from Chairman Chet Holifield of the Joint Committee on Atomic Energy that I not make an offer to place additional U.S. nuclear power facilities under IAEA safeguards in my IAEA speech unless the U.S.S.R. makes some offer along these lines. It will be necessary to decide how to react to this request: (1) ignore it, (2) modify this section of my speech or (3) delete the section of my speech.

I met with Ambassador Henry D. Smyth who told me that the White House decided not to appoint Irwin Tobin to replace Verne Lewis as Deputy Chief of IAEA Mission in Vienna; this decision came after Tobin had moved his family to Vienna which is a very bad way to conduct business--apparently the White House has another candidate, possibly a political one.

Rubin and I then rode with Burgeth out to the Vienna Woods area where we took a hike. We hiked to the top of Hermannskogelwarte, just as Helen and I did last year, and then had dinner in my suite.

I attended the reception given by the Japanese delegation in the Governors' Lounge of the IAEA Headquarters. I met and talked to many delegates, including Igor Morokhov and Georgy Arkadiev of the U.S.S.R., who were very cordial and spoke of my forthcoming trip to Leningrad and Moscow. They said Andronik Petrosyants is ready to receive me and I will be very well taken care of.

During the evening I read the AEC papers that had come from Washington.

[Following is an account of today's major activities in the Washington AEC office.

Jack Hollander of the Lawrence Radiation Laboratory, Berkeley called the office to say that an open forum is to be held in Berkeley on the relationship of the University of California to the weapons laboratories. Jack is to be one of the speakers; the others being Roger Batzel and a professor from the

Berkeley campus. Jack wanted to obtain information which might be available on the AEC's relationship with the laboratories which could be of use in the debate.]

Thursday, September 23, 1969 - Vienna

Following breakfast in my suite, I went to our Mission headquarters and talked with staff in preparation for the General Conference of the IAEA.

I received a telephone call from Henry Seligman, of the Siebersdorf IAEA Laboratory, who told me that the UAR radioisotopes center is in financial trouble and they may seek help from the U.S.--possibly Ahmed Moustafa (the UAR delegate) will talk to me about it.

I presided over a meeting of the U.S. delegation. Those present were: Ambassador Henry D. Smyth, Verne B. Lewis, James T. Ramey, Theos J. Thompson, Isidor I. Rabi, Kratzer, Donovan Q. Zook, Harold Bengelsdorf, John de Martino, Betty C. Gough, Larry C. Grahl, Philippe G. Jacques, Edward P. Noziglia, Robert Ritzmann, Julius Rubin, David Sousa, Jack Vanderryn, William L. Yeomans, and John R. Savage.

Smyth, Ramey, Thompson, Lewis and I were officially sworn in by Mr. Harry Grossman from the Embassy in Vienna. I made some welcoming remarks, then Ambassador Smyth and Lewis described the agenda and general arrangements for the Conference, and the issues that will arise.

I then rode with Smyth and Lewis to the Hofburg where we called on Bechir Torki of Tunisia, prospective president of the General Conference. We congratulated Torki on his imminent election as president and discussed the impending resolutions on Board composition, peaceful nuclear explosive devices and fissionable materials. I told Torki about my tentative plans to visit Africa next January and he asked me to consider visiting Tunisia at that time; he said he will speak to the President of Tunisia about inviting me.

I then rode with Smyth to the residence of Sigvard A. Eklund for a luncheon. His guests included outgoing General Conference President Manuel Sandoval Vallarta (Mexico), Mrs. Marie-Paulo Lacoste (France), Sir John M. Hill (United Kingdom), I. H. Usmani (Pakistan), Roberto Ducci (Italy), Torki, Kinya Niiseki (Japan), Morokhov, John Hall (IAEA), Vikram A. Sarabhai (India), Ambassador Smyth, J. McAdam Clark (United Kingdom), V. Winspeare Guicciardi (United Nations, Under Secretary-General), and Ismail Fahmy (United Arab Republic). As the luncheon drew to an end Eklund gave a short welcoming talk and proposed a toast to the future of the United Nations. Sandoval Vallarta gave a short talk, describing his tenure as President, and extended greetings to Torki. Guicciardi proposed a toast to Eklund and the IAEA.

Over coffee I talked to Eklund. He told me that the letter from Sweden to the IAEA that I discussed with Prime Minister Tage Erlander and Mrs. Alva Myrdal would probably be forthcoming. He told me there is another problem that bothers him very much. This is a very confidential matter. France is selling a substantial amount of uranium to Sweden, has offered to do so under IAEA safeguards, but Sweden is insisting on a bilateral agreement between France and Sweden. This is symptomatic of an attitude that worries Eklund very much. He says this attitude is due to Wickman (Minister of Industry), Harry Brynielsson, and Bo Aler. I told Eklund that there is increasing difficulty in the U.S., especially in Congress, concerning the fact that the U.S.S.R. is

not placing any of its nuclear facilities under IAEA safeguards. This is making it difficult to get agreement for an extension of the IAEA safeguards concept to the new facilities in the U.S. Eklund said he thought that the U.S.S.R. will not place any of its facilities under IAEA safeguards until there is an NPT, and there is a good chance that they will do so at that time. I also spoke in favor of appointment of Guinn to a staff position in the Industrial Radiation Division of the Division of Research and Laboratories at an adequate salary.

Following lunch I rode back to the Hofburg with Smyth. I met many delegates from various countries as they came in and then attended the opening session of the 13th IAEA General Conference.

Sandoval Vallarta opened the meeting and after a short statement presided over the election of Torki as President. Torki then took over and presided over the election of other officers. I was asked, without any forewarning to second the nomination of Ambassador V. C. Trivedi (Indian Ambassador to Austria) as Chairman of the Committee on Program, Technical and Budget Committee. (I mistakenly referred to Trivedi as a nominee for Secretary rather than Chairman of this Committee because I hadn't heard the preceding statements.)

Eklund then gave his Director General's statement. He discussed the peaceful uses of nuclear explosives and said the IAEA is ready to accept this responsibility when the program is ready. He spoke about the steps being taken to assure the supply of fissionable materials through the IAEA. He said the World Bank's response to the idea that it help finance nuclear power plants has not been encouraging. He mentioned the plans for the next International Conference on the Peaceful Uses of Atomic energy to be held in Geneva, starting on September 6, 1971, to run 8 or 9 days. He said that nuclear power does not contribute appreciably to environmental problems but instead helps alleviate these problems. Realistic appraisals of costs have tempered expectations from agro-industrial complexes. He deplored the slow progress toward the NPT and described the progress on IAEA safeguards. He emphasized the importance of NPT Articles IV and V.

Following Eklund's talk, Guicciardi gave a few words of welcome from the United Nations and described the fine relationship between the United Nations and the IAEA.

Kratzer, Zook and I then went to a room in the Hofburg to hold a private meeting with Morokhov and the interpreter. Morokhov opened the meeting by asking what the U.S. plans are for a meeting with the U.S.S.R. on peaceful uses of nuclear explosives as a follow-on to the Tape-Morokhov meeting last April. He said that the Soviets were very disappointed with U.S. reluctance to discuss results and policy at that meeting. He said that he would like such a meeting to be held before the IAEA panel discussion on this subject scheduled to be held in Vienna next March. I said the U.S. wants to hold such a meeting and we will be in touch with him about it. I said we also were disappointed with the Soviet performance at the Tape-Morokhov meeting. Morokhov said he preferred Moscow or Washington as the locale for the meeting because it would be possible to be more frank, but said Vienna would be acceptable. He said the Soviets agree that the IAEA is the proper vehicle to implement Article V of the NPT and I agreed vigorously. (Article V of the Treaty provides that potential benefits from any peaceful uses of nuclear explosions will be made available to non-nuclear weapons states party to the treaty.)

I then raised the question of whether the U.S.S.R. would be willing to place one or more peaceful nuclear facilities under IAEA safeguards. I told him that there is much criticism in the United States because the Soviet Union doesn't want to do this. I said I had personally suggested to President Johnson that he make the offer to place U.S. peaceful nuclear facilities under the NPT under IAEA safeguards (the offer he made in his December 2, 1967, speech). Morokhov said the Soviet Union is against doing this as a matter of principle; they think it contributes nothing to the prevention of proliferation of nuclear weapons and wastes use of IAEA personnel. Kratzer then pointed out the importance of training IAEA personnel at a Soviet nuclear facility; such training in safeguards' procedures by actual practice at a nuclear plant, while less than what we have suggested, would be very useful and a step forward. Morokhov said the Soviet Union didn't rule this out and, in fact, it might be a good possibility.

Morokhov then told me that Andronik Petrosyants had worked personally on my schedule in the Soviet Union for my forthcoming visit. He said he had suggested to V. I. Spitsyn that he shouldn't get into the controversy over element 104 in his talk tomorrow and Spitsyn agreed. I said I also had decided not to get into the element 104 matter in my talk tomorrow.

I had dinner in my suite, then went with the Rubins to the reception given by the Director General and President of the Conference in the Governors' Lounge of the IAEA. Here I met and talked with Felix Malu (delegate of the Congo), Nacer El Fassi (delegate of Morocco and Ambassador to Austria and Switzerland), and J. A. K. Quartey (delegate of Ghana) and told them about my proposed visit to Africa next January. They all bid me welcome to visit their countries and warned me it will be very hot. I met and talked to Mr. and Mrs. Rudolf Rometsch; he took over as Inspector General of the IAEA about a month ago. I talked to Andrei K. Krasin (delegate of Byelorussian Soviet Socialist Republic and Director, Institute of Nuclear Energy, Byelorussian Academy of Sciences); he gave me a reprint and again invited me to visit his Institute at Minsk.

[Following is an account of today's major activities in the Washington AEC office.

Wolf Lehmann of the State Department called the office to get AEC approval to make a public announcement of the detection of an underground nuclear test at Lop Nor in China. Intelligence reports had just arrived in the AEC indicating that such a test had been conducted. The staff considered the matter and decided that the AEC should defer to the Secretary of State to determine need for such an announcement, and Lehmann was so informed.]

Wednesday, September 24, 1969 - Vienna

I had breakfast in my suite and after reviewing my speaking text, slides, etc. I went to the Festsaal of the Hofburg. Among the participants I talked to was Lennart Petri (Swedish delegation; he is the new Swedish Ambassador to Austria). We talked about my meeting with Prime Minister Tage Erlander last week, and he said he agreed with me that Sweden should transfer the Safeguards of the U.S.-Swedish Bilateral to the IAEA. Andrei K. Krasin gave me five additional reprints and a journal.

When the session began at about 10:40 a.m. President Torki called on me and I gave my prepared talk as the first speaker on the program; it took about 25 minutes.

OFFICE DIARY
GLENN T. SEABORG
Chr USAEC, 1961-72
FOLDER-PAGE 105302

9/24/69

NOT DECLASSIFIABLE

DOCUMENT TITLE TWx DTG 241050Z Sept. From Amembassy Vienna
To Sec. State - "PNE Talks with USSR," 9/24/69
0911526

This document has been determined to be NOT DECLASSIFIABLE and has been removed from this folder.

• W. Trench
Name

11/24/87
Date

Reference Ltr. DOS Burke to DOE, OC Gilbert
dated 8/19/87

105302 - 105304146

In this talk, I first read a message from President Richard Nixon reaffirming U.S. support of the IAEA and renewing our pledge to support the NPT. I then reviewed U.S. international nuclear programs and our past and planned contributions to the Agency and its programs. I restated our belief that the Agency is the most appropriate organization to assume the responsibilities under Article V of the NPT, relating to peaceful uses of nuclear explosives, and reaffirmed our pledge to do all possible to support IAEA activities in the field of safeguards. In the light of Chairman Holifield's request received on the 22nd, however, and pursuant to discussions with my colleagues in Vienna and telephone consultation with Washington, I had deleted from my speech all references to a proposed new U.S.-IAEA safeguards agreement under which additional U.S. facilities would be opened to Agency safeguards inspectors.

A. J. A. Roux (South Africa delegate) was the next speaker. He spoke strongly in favor of letting non-nuclear weapon states develop nuclear explosives themselves. He said IAEA should be in charge of the next peaceful uses conference after that planned in 1971.

I then went with James Ramey, Theos Thompson, Kratzer, Zook, and Rubin to Concordia Press Club, Bankgasse 8, where I participated in a press conference



Press Conference at Concordia Press Club, Vienna; September 24, 1969.
L to R: M. B. Kratzer, J. T. Ramey, Seaborg, T. J. Thompson, I. I. Rabi, D. Q. Zook.

with Ramey, Thompson, Rabi, Kratzer, and Zook. Among the reporters present were: George Berenyi (Esti Hirlap, Budapest), Wjatscheslaw Solowjow (TASS), Heinz Dorn (Austrian Ministry of Interior), Dr. Gieler (Austrian Ministry for Transportation), Vlado Benedik (Tanjug), Yanedeck (ISJ), Leo Herman (Le

Parisien), E. Roka (Austrian Radio ORF), Hans G. Rambousek (VWD Frankfurt Main), Ritchie McEwen (The Times, London), B. Pranel (Austrian Press Agency), Elisabeth Sos (Magyar Híradó, Vienna), J. Kon (Snoh slovo, Prague), Fred Manhardt-Lenhardt (Kurier, Vienna), Yuri Prunchev (IAEA, Vienna), Felix F. Fluss (Jurnal, U.S. Trade paper), Dr. Friedrich Katscher (Arbeiter Zeitung, Vienna), Frederick Opper (Radio Free Europe, Vienna), Manfred Prester (Radio Free Europe, Vienna), Dr. Lucian Meysels (Die Wochenpresse, Vienna), Walther Sojka (Neue Physik, Vienna Prevent Cancer Society), Fritz Baer (Nucleonics Week), Dr. Ricco Labhardt (Neue Zuercher Zeitung), Janos Gereben (Honolulu Star Bulletin), David Hermges (Austrian Radio), Peter Hoffer (Aftenposten, Oslo), Rothmayer (Volksstimme, Vienna), Erich Leitenberger (Die Presse, Vienna), Sigrid Loeffler (Die Presse, Vienna), Professor Vinzenz Ludwig Ostry (Concordia), Robert Elphic (BBC), Gerda Michael (Courier Canada), Hanni Konitzer (Frankfurter Allgemeine Zeitung), Ernie Reed (CBS), R. C. Longworth (UPI), Victor Lusinshi (New York Times) and Professor Dr. G. Pleskot (Der Stille Weg), also three unidentified correspondents.

I made a brief opening statement, including mention of the fact that I am to speak in Leningrad on Friday at the Mendeleev Centennial. The first question was a request for my view on whether Austria should wait for fusion power and not waste money on "dangerous and obsolete" nuclear fission power. I gave assurance that proved-type nuclear plants could be constructed safely and stated that fusion power is many decades away. The second question was about the results of the talks on peaceful uses of nuclear explosives between Soviet and American representatives in Vienna last spring. I explained that these talks would be resumed. The third question was a request for my impressions of atomic power installations in Europe. I described the Bohunice Power Plant in Czechoslovakia that I had seen on this trip and my meeting in Zurich in which the Swiss outlined their plans for nuclear power. The fourth question was a request for an explanation of the decline in new nuclear power plant orders in the U.S. I referred this to Ramey, who reviewed the pressure vessel problem and the cyclical nature of utilities' ordering of new plants. In response to a general question on whether nuclear explosives would be used by developing countries, Ramey and I explained the objectives of our underground engineering and excavation program. A political question on whether Byelorussia and the Ukraine were nuclear or non-nuclear states was referred to Zook who stated that the U.S. had not made a decision on the question. Next I was asked whether the U.S. underground testing of weapons-oriented nuclear devices might not have proved harmful to the recent U.S.-Soviet talks, and I replied that I thought it did not. The reporter went on to inquire about future tests of this nature, and I told him we had tests planned for Nevada and Amchitka. The next question concerned the status of the nuclear rocket. I projected a test flight in 1976 and an engine available for missions in 1980-81 if funds are available and a decision is made to explore the planets. The subject of enlarging the IAEA Board of Governors was reviewed. I was also asked whether nuclear power could be used to clean up the environment or simply to reduce pollution, to which I replied that it could be used for the latter.

The remaining time in the press conference was taken up by Sojka. He asked a number of leading questions about the Rocky Flats fire and made statements about the hazards of nuclear power that he attributed to various people. I answered all the questions and Ramey made some supplementary comments. The questions and answers were repeated in German and English.

I gave three taped interviews after the press conference: for Ernie Reed of CBS I made a brief statement reviewing my itinerary for this trip and my

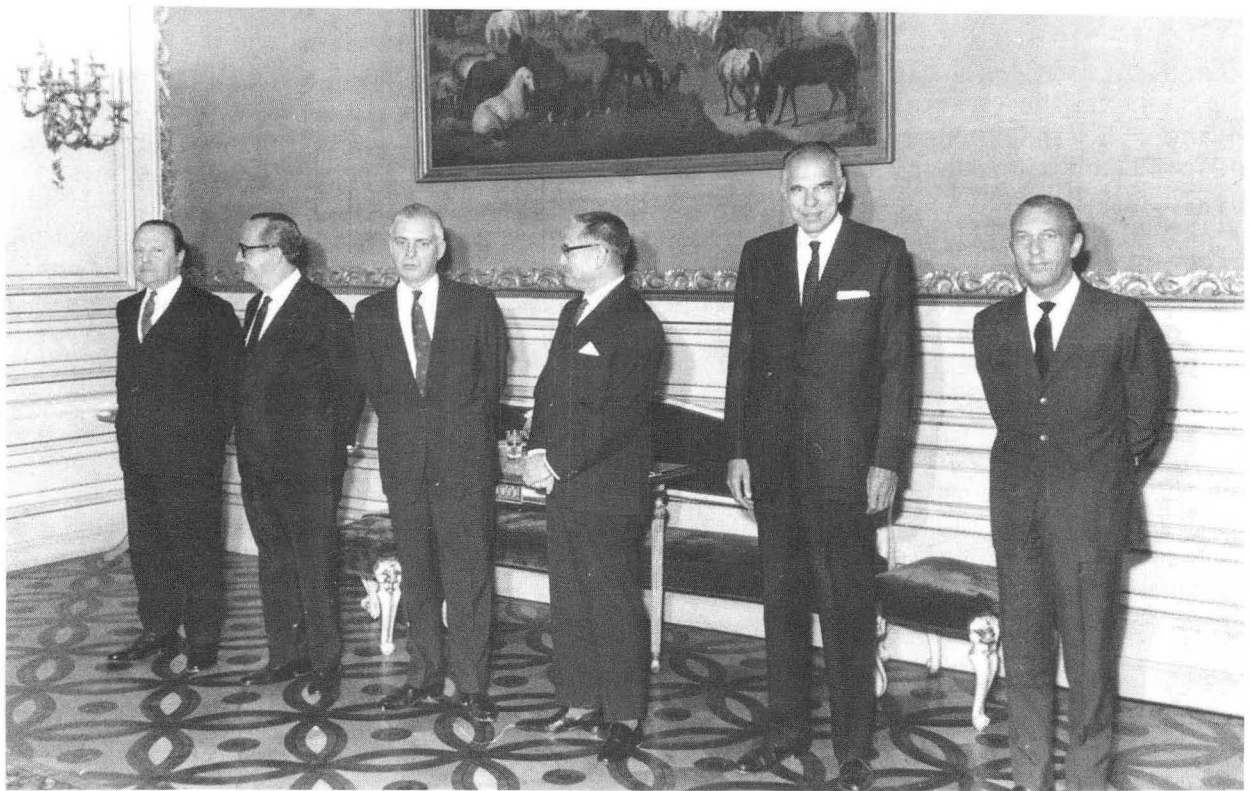
activities to date in Stockholm, Zurich, Prague, Bratislava, and to date in Vienna. I answered questions about the future prospects for continuing the Plowshare technical talks with the Soviets. The projection for nuclear power in the U.S. and Europe was highlighted. For Roka of Austrian radio I answered questions on the danger of nuclear power, whether small countries like Austria should build or buy nuclear plants, and when we would use nuclear energy for flight (I told him it was not likely for airplanes but rockets were well along in development for use in 1980's). For Hoffer of Aftenposten my remarks were in reply to questions about the Nixon message, status of the NPT, new developments on the SALT talks and whether they had any connection with my Leningrad trip, the effect of nuclear power on pollution.

Later I went to the Festsaal of the Hofburg where Eklund presided and introduced Viktor Spitsyn and me for our lectures. I talked on "New Outlook for the Transuranium Elements," illustrated by slides and followed by questions (I talked mainly on the prospects for superheavy elements in the future). Spitsyn talked on "The Present Status of Mendeleev's Periodic System."



Mendeleev lectures, IAEA 13th General Conference, Vienna; September 24, 1969.
L to R: V. I. Spitsyn, Seaborg.

This evening I made a brief call at the Indian Delegation's reception, and then went on to the Palais Pallavicini, where I served as co-host of the Western Hemisphere Reception with Oscar A. Quihillalt (Argentina), Uriel da



Western Hemisphere Reception, Vienna; September 24, 1969.
L to R: O. A. Quihillalt, U. da Costa Ribeiro, J. A. McCordick, E. P. Marcial Rubio Escudero, Seaborg, L. Olavarria.



Western Hemisphere Reception, Vienna; September 24, 1969.
L to R: B. Torki (Tunisia), Seaborg.

Costa Ribeiro (Brazil), John A. McCordick (Canada), E. P. Marcial Rubio Escudero (Peru), and Luis A. Olavarria (Venezuela). Hundreds of people went through the receiving line. Among the interesting people I met as I circulated among our guests was Professor Namsarain Sodnom, Vice Director, Joint Institute for Nuclear Research, Dubna, U.S.S.R., a citizen of Mongolia. He was quite interested in my forthcoming discussions with Flerov regarding element 104. I discussed with Lennart Eckerberg (Sweden) my conversation with Prime Minister Erlander regarding Sweden's position on a trilateral agreement and on the NPT. Eckerberg seemed to feel that Sweden would do well to take both these steps.

Tomorrow I will fly to Moscow to begin the Soviet part of my trip. I regret not being able to attend the other meetings of the IAEA's 13th General Conference, during which developments, as I learned later, were in general eminently satisfactory from the U.S. point of view. Regarding the proposed enlargement of the Board of Governors, the Conference adopted a U.S. draft resolution (which took into consideration the views of the many other delegations we had consulted in advance) commending the intention of the Board to continue the study of Article VI of the Statute as an urgent matter and requesting the Board to take into account the views expressed at this General Conference and make every effort to present a draft amendment to Article VI in time to permit its consideration by the 14th General Conference in 1970. On the matter of Peaceful Nuclear Explosion Services under Article V of the NPT, the Conference adopted a U.S.-UK draft resolution endorsing the Board of Governors report, which represented a further significant step towards identification of the Agency as the international organization referred to in that article.

[Following is an account of today's major activities in the Washington AEC office.

An airgram (copy attached) from the American Embassy in Canberra, Australia, arrived at the AEC, which stated that a Mr. Lang Hancock had attributed remarks to me concerning the availability of nuclear explosives for peaceful purposes in Australia. Justin Bloom sent me a copy through the mail to Europe, along with a draft reply prepared by Toni Joseph (copy attached). I approved the reply and it was dispatched ultimately to Australia.

Further consideration of the proposed announcement of the Chinese underground test resulted in a decision that there is no AEC objection to making the announcement and Will Kriegsman of the White House was therefore called by Bloom, who requested approval to make the release. Kriegsman took the matter under consideration.

Admiral Rickover refused to release any of his funds for use in the Pioneer and Viking space power program and, therefore, the funds for this program were to be obtained from within SNS.

Attached is a copy of a letter addressed to me from the Vice President thanking me for my work as an observer of the Space Task Group and enclosing a copy of his letter of September 15, 1969 to the President transmitting the Space Task Group Report, which recommends Option II, which suggests a NASA budget of \$4.0 billion in FY 1971 and 1972, reaching \$5.7 billion in 1976 and allowing a decision resulting in a manned planetary mission in 1986.

Attached is a copy of a memorandum describing an item for possible use in the daily report to the President.]

861-5
 RCH AF
 L 5A
 EUR 2
 CU 14
 D 10
 FRO 13
 GSA 17
 18
 2
 5
 3
 5
 3
 5
 3
 5

DEPARTMENT OF STATE
AIRGRAM

1700 Iron Ore
 UNCL. BY DGE
 FOR RM USE ONLY NOV 86

A-405 UNCLASSIFIED
 NO. RECEIVED HANDLING INDICATOR

TO : Department of State
 INFO : PERTH, SYDNEY
 FROM : Amembassy CANBERRA
 DATE: September 12, 1969
 SUBJECT: Interest in Peaceful Nuclear Explosion to Excavate Iron Ore in Western Australia
 REF: Canberra A-196, May 16, 1969, and previous messages
05 14-1 Aug 69
12/11/69 Iron Ore S.C.

CM/SA/D

COPYFLO-PBR

Mr. Lang Hancock, Managing Director of Hamersley Iron Ore, Pty. Ltd., on returning from a visit to the United States on September 9, said that he wants to use a nuclear explosion to excavate iron ore in Western Australia. The site mentioned is near the town of Wittenoon in the Hamersley Range about 100 miles from Marble Bar. The underground explosion would take place as soon as permission can be obtained from the Federal Government. He said that the people of Wittenoon, seven miles away, would not even have to leave their homes. He referred to the practical aspects to be demonstrated by Project Rulison, the US peaceful nuclear explosion scheduled to be held early in September.

The Minister for National Development, Mr. Fairbairn, later told the press that the Commonwealth would be interested in studying a firm proposal, but that certain conditions would have to be met. The proposal would first have to be approved by the Western Australian Government. Also it would have to be proved safe after thorough and comprehensive studies, be economically superior to conventional methods, and have "visible" financial sponsors.

Enclosed is a clipping from the Sydney Morning Herald reporting further information about Mr. Hancock's proposal. The enclosed news item reports that Mr. Hancock said that the Chairman of

Enclosure: *2*
 News clipping

UNCLASSIFIED FOR DEPT. USE ONLY
 In Out

ECON:AVNyren:sm 9/10/69
 POL:Mr. Martin
 ECON:AVNyren
 152

UNCLASSIFIED

Canberra A-405

2

the USAEC, Mr. Glenn Seaborg, said that the US Government would support the Wittenoon project and provide the nuclear explosives. The Australian reported that Mr. Hancock said that "nearly 300 nuclear devices have been set off in the US so far and the US Atomic Energy Commission would now sell these to commercial organizations."

RICE

A

Nuclear blasts plan for W.A. iron ore

*Sydney
Morning
Herald*
9/10/69

Mr Hancock said that if this blast was successful, the natural gas freed by it would double or even treble the United States' natural gas reserves.

It is just such a blast that he hopes the Australian Government will allow the Mt. Bruce Mining Co. Pty. Ltd. to use at Wittenoom.

FIVE SHAFTS

Mr Hancock's plan calls for five vertical shafts 800 feet deep to be drilled on top of the iron ore outcrop, 6,000ft away from the cliff edge of the outcrop.

The five thermo-nuclear devices would be lowered, one to a shaft, sealed in and exploded simultaneously.

The ore would shatter "into pieces the size of telephone books," as it sank into the caverns left by the explosions, but the ground at the top of the plateau would not move at all.

The ore would be extracted on a conveyor belt

through a horizontal shaft from the foot of the cliff face.

Mr Hancock said the explosion would cost \$2m and another \$1m would be spent on safety precautions.

Mr Hancock said that he had been told Japanese steel companies would be prepared to buy the 45 million tons of ore over 15 years at the rate of three million tons annually.

\$400m SALE

The ore would be sold for \$9 a ton, which would bring in more than \$400m, he said.

Forty-nine per cent of the shares in Mt. Bruce will be owned by Conzinc Rio-tinto and the Kaiser Steel Corporation, 25 per cent by Mr Hancock and his partner, Mr E. A. Wright, and the remaining 26 per cent by the Australian public.



Mr Lang Hancock, the Western Australian mining millionaire, returned from the United States yesterday with a plan to use thermo-nuclear explosives to produce 45 million tons of the cheapest iron ore yet mined.

At Wittenoom in the far northwest of Western Australia, he wants to explode five thermo-nuclear devices 800 feet below the surface of a mountainous outcrop of iron ore.

Each device would be the equivalent of 8,000 tons of T.N.T.

In Canberra, the Minister for National Development, Mr D. E. Fairbairn, said the Commonwealth Government would "certainly be interested" in considering a firm proposal by Mr Hancock for the use of nuclear explosions.

However, strict conditions, including studies to demonstrate that the proposed blast could be carried out totally without danger, would have to be fulfilled.

He said Mr Hancock should consult the Western Australian Government about the project first.

Mr Hancock said in Sydney yesterday, the chairman of the U.S. Atomic Energy Commission, Professor Glenn T. Seaborg, had said that the U.S. Government would support the Wittenoom project and provide the nuclear explosives.

A similar project designed to fracture thousands of tons of gas-bearing rock is due to be exploded at Rulison, in Western Colorado, today.

A.A.P.-Reuter reported last night that poor weather prevented the detonation of the explosion yesterday.



MR HANCOCK

September 23, 1969

To: Canberra

Ref: A-405, dated September 12, 1969

(1) *Dispatched to
Australia on
October 2, 1969.*

No repeat no basis for attributing statement to Seaborg that USG would support Wittenoon project. Hancock visited Project Rulison in Colorado in early September during which he mentioned application of nuclear explosions ~~to~~ iron ore excavation to USAEC staff. Those personnel did not repeat not say nor give impression, in any way, that USG would or would not support such a project.

Hancock statement that AEC would sell nuclear explosive devices to commercial organizations reveals lack of understanding of US policy and law. In no case domestic or foreign, will USG "sell" nuclear explosives, and in providing peaceful nuclear explosion service, USG will retain custody and control of nuclear explosives at all times.

If appropriate opportunity arises, suggest you correct Hancock statements by pointing out (1) that USG has not received any proposal from Australians for use of nuclear explosions in mining of iron ore in Australia; (2) any such proposal would have to be endorsed by and submitted to USG by GOA; (3) no assurances of USG support for such project have been given by USG officials; (4) US would, of course, give appropriate consideration to any proposal by GOA in area of peaceful uses nuclear energy; (5) US law does not permit, nor does US intend sell nuclear explosives; and (6) at present, USAEC not permitted provide peaceful nuclear explosion service on commercial basis, *although* ~~however~~, legislation is now pending to permit this.



THE VICE PRESIDENT
WASHINGTON

September 19, 1969

The Honorable Glenn T. Seaborg
Chairman
Atomic Energy Commission
Washington, D. C.

Dear Glenn:

Your exceptionally effective work as an observer of the Space Task Group is gratefully acknowledged.

Please accept my heartfelt thanks for working with me in such a highly cooperative spirit. The fine cooperation and dedicated work of Mr. Milton Klein and Mr. Francis C. Schwenk, your Staff Directors on the Space Task Group, merit high praise.

There are attached for your information copies of my letter of transmittal of the Space Task Group Report to the President, a copy of the Press Release dated September 17, 1969, and the Space Task Group, NASA and PSAC Reports.

Again, congratulations to you and your associates for a superb job!

Sincerely,

A handwritten signature in dark ink, appearing to be "Jed", written in a cursive style.

Attachments



THE VICE PRESIDENT
WASHINGTON

September 15, 1969

The President
The White House
Washington, D. C.

Dear Mr. President:

The report of your Space Task Group (STG) is submitted for your consideration. The report responds to your memorandum of February 13, 1969, which asks the Space Task Group to develop a recommendation on the direction the United States' space program should take in the post-Apollo period and to prepare for you a coordinated program and budget proposal.

We have identified and described several possible levels of effort for the nation's future space program. It is the unanimous opinion of the principals and observers of the Task Group that the three options presented in the report provide properly balanced space programs, and that the range of choice provides flexibility in meeting budgetary constraints..

The three program options presented in the Space Task Group report for NASA lie between the bounds of a vigorous expansion over our present space activities and an undesirable level of retrenchment which involves termination of manned space flight activities. The three program options recommended for your consideration are Option I, which reaches a maximum expenditure of \$9.0 Billion in 1980, and involves a decision to undertake a manned Mars mission in the early 1980's; Option II, which reaches expenditures of about \$5.5 Billion in Fiscal Year 1976, and would include launch of a manned mission to Mars about 1986, thereby resulting in peak expenditures of about \$8.0 Billion in the early 1980's; and Option III, which defers decision on a Mars manned mission until after 1990.

While the Space Task Group does not recommend any one program option above the others, it does unanimously recommend that "the United States accept the long-range option or goal of manned planetary exploration with a manned Mars mission before the end of the century as the first target." It is my personal belief that a vigorous space effort is essential to the welfare of this country, particularly since we have already experienced important space benefits to our international prestige, our national security, and our economy. Such benefits can be expected to increase, not diminish, as a result of our continuing space investments.

The impact of the Apollo flights provided a lift to the national spirit and a reinforcement to the national pride in a way seldom witnessed in this country's history. It is my conviction that the intangible benefits from space yet to be realized may be greater than the technical benefits that are already apparent and are so profound.

Considering the specific program areas available for your consideration, I recommend an increase in space activities rather than a sustaining or declining effort. I recognize that competing budgetary demands militate against the choice of a program requiring important increases in funding at this time. Therefore, I am prepared to recommend that at this juncture we should fund a total program which sustains our capability to advance our technology base so that we can later commit the Nation to increased activity when it seems advisable. Manned exploration of the solar system leading to a manned Mars landing is inevitable and should be established as a basic theme of our space program. This would serve as a continuing challenge to our technology and act as a guide in establishing our future capability to explore and gather knowledge from space.

I, therefore, recommend Option II, which would be in the range of \$4.0 Billion in Fiscal Year 1971 and 1972, reach a peak of \$5.7 Billion in 1976, and allow a decision resulting in a manned planetary mission in 1986. This will extend our national capability for manned and unmanned exploration and scientific probing of the solar system. This approach should engender broad scientific and political support since the decision for a firm commitment to manned planetary flight will be made when our technological, scientific and fiscal positions are better defined.

Three options are presented for the Department of Defense. The first forecasts expanded space activity in the presence of an increased hostile threat while the last reflects a declining threat and decreasing activity. Our national security programs in space are evaluated in competition with our other defense systems for their utility to perform a given mission. For that reason, the selected option will be incorporated in the overall DOD budgets for your review and approval. I personally foresee some expansion of activity in this area due to the broader spectrum of service that space can provide. A continuing increase in the degree of cooperation between the Department of Defense and NASA should be encouraged in order to bring about complementary utilization of program developments while maintaining the peaceful aspects of space.

The cornerstones for any of the program options are two projects -- the space station and the space transportation system. The space station, which should be available in the mid-70's, will provide an earth-orbiting laboratory for science and industry and will offer an excellent potential for international participation. Logistics support for the space station should be provided by a reusable space transportation system, which will also provide a low-cost method of transporting payloads to and from orbit, as well as new civil and military mission capabilities. Both projects have great value for orbital operations near our planet Earth; both support the theme of exploring the solar system; and both can be accomplished within the program level that I recommend. The Department of State, supported by NASA, should be charged with bringing about increased international participation based upon sharing the cost as well as the benefits.

The National Aeronautics and Space Council will insure that all agencies having an interest in space activities maintain a high level of cooperation and coordination of their efforts and provide a maximum opportunity for international participation.

The reports of the National Aeronautics and Space Administration, the Department of Defense, and the President's Science Advisory Committee, which were utilized in preparing the Space Task Group Report are transmitted as attachments.

Sincerely,

Spencer J. England

September 24, 1969

Mr. Albert Toner
Staff Assistant
The White House

Dear Mr. Toner:

The following item is submitted for your possible use in the daily report to the President.

What might be considered to be the next phase of the AEC's efforts to present its point of view on nuclear power and the environment will take place in Minneapolis, Minnesota, on October 10 and 11. A symposium on "Nuclear Power and the Public" will be held under the sponsorship of the University of Minnesota. A large number of professionals will speak at the symposium representing the academic world, the Federal Government, and industry.

This symposium will not be of the same type as the "Town Meeting" conducted in Burlington, Vermont, on September 11. A relatively small group of AEC personnel will participate, led by Commissioner James T. Ramey.

It should be noted that this symposium will follow shortly after a meeting being arranged by Dr. DuBridges among Federal officials and the Minnesota and Wisconsin Delegations to discuss problems arising out of the construction of a nuclear power plant on the Mississippi River in Minnesota.

Sincerely,

Original signed by
Justin L. Bloom

Justin L. Bloom
Staff Assistant
to the Chairman

cc: Texas, Whitehouse

Chairman Seaborg
J. Rubin
H. Gearin ✓

Thursday, September 25, 1969 - Vienna - Moscow

After breakfast in my suite, I met with Julie Rubin and Helen Gearin in my room at 9:15 a.m. I reviewed some current mail Helen had picked up at the office and listened to a tape recording of Rubin's telephone conversation of the previous evening with Marie Janinek and Justin Bloom. Nothing of great substance was on the tape except that the family at home was well, no news on the budget and MILROW was still on schedule. I returned to Rubin the slides that Bloom had sent for my possible second paper in Leningrad for the transmendelevium session.

I left the hotel with the Rubins and Kurt Fink of our Vienna staff. The time for our flight had been changed from 7:45 a.m. to 11:20 a.m. and was subsequently announced as being 25 minutes late. Professor and Mrs. Spitsyn were taking the same plane. Upon leaving the bus to board the plane our party was invited to enter the Aeroflot flight ahead of the other passengers. Once in the plane Professor Spitsyn asked us to join him in the front where four seats were located on each side of the aisle with a table between. Lunch was served on the trip, which required 3 hours' flying time, plus a 2-hour time change between Vienna and Moscow. Our actual arrival time in Moscow was at 5:10 p.m. at Sheremet'yevo International Airport. On the flight I read the DIA briefing material about the Moscow and Leningrad portion of the trip.

I was met at the airport by Christopher A. Squire (U.S. Embassy Control Officer), Andronik M. Petrosyants (Chairman, U.S.S.R. State Committee for Atomic Energy), Academician Lev A. Artsimovich (U.S.S.R. Academy of Sciences), Ivan I. Smolin (American Section, Foreign Department, U.S.S.R. State Committee for Atomic Energy), Nikolay A. Titkov (Foreign Department, U.S.S.R. State Committee for Atomic Energy), and Aleksander A. Serov (Foreign Department, U.S.S.R. State Committee for Atomic Energy).

The group assembled at a large table in the terminal where refreshments were served. Arrangements were made by Serov to collect our luggage and confirm our connecting flight to Leningrad.

Petrosyants reviewed the planned program for my time in Moscow after returning from Leningrad. This includes a trip to Dubna on September 28, attendance at a short opera and ballet that evening and a meeting with the State Committee on Atomic Energy (SCAE) on September 29. I indicated a desire to visit Spitsyn's and Goldanskii's laboratories on September 29 if time is available.

The remainder of about an hour's time at this terminal was spent in light conversation, a number of toasts proposed by Petrosyants and some humorous stories by Spitsyn.

At 6:30 p.m. we headed for the cars to the domestic travel terminal of Sheremet'yevo Airport. On the way to the cars I was introduced to Boris B. Kadomtsev and V. D. Shafranov who were at the airport to meet Am Bishop of the U.S. AEC. These two Soviet scientists were identified as among their top plasma physicists. I rode with Petrosyants, Titkov, and Smolin between the two terminals. Petrosyants expressed the wish that U.S.-Soviet cooperation could be resumed on an active basis. I told him we wanted V. M. Strutinskii to attend the Welch Conference in Houston, Texas, and he responded that it would be done if this is what I wished. (L. A. Artsimovich had told me earlier he would be willing to come to Texas to speak provided his expenses are paid.)

Upon arrival at the second terminal (a trip of about 3 miles) we were taken to a private room to wait for the time to board the plane. While in the room I gave autographed copies of American Historylands to Petrosyants and Artsimovich.

I boarded our plane on schedule (with the Rubins and Spitsyn) and again we were given a preferred location at the front of the plane where there were seats separated by a table. After waiting for about 20-30 minutes, an announcement was made that the airport has been closed for takeoffs until at least after midnight due to a heavy ground fog. Upon leaving the plane we found that Titkov and Serov were still at the airport but all of the rest had left in the belief that we were on our way to Leningrad.

Arrangements were made for the table in the airport dining room for dinner. Again we were given preferential treatment ahead of other people waiting in line to get into the dining room.

We learned a quick lesson about Soviet eating at this dinner. Platters of bread, several meats that included ham, salami, roast beef, sturgeon, plus cheese and caviar were brought out. In view of the hour we helped ourselves generously to these sandwiches. It turned out this was the appetizer, which was followed by soup, salad, steak, peas, and french fries, followed by dessert and fruit. It was almost an impossible effort to do more than nibble at anything beyond the first course.

During dinner Serov arranged for reservations on an overnight sleeper to Leningrad. We left the airport about 11:30 p.m. in a very dense fog that required driving without any headlights on the cars to avoid the reflection back to the driver. About a mile from the airport on the way into downtown Moscow we began to leave the fog and by the time we arrived at the train station it was fairly clear although still overcast. We boarded the train at 12:30 a.m. on September 26 and departed exactly on schedule at 1 a.m. Separate compartments were provided for me, the Rubins, and Professor Spitsyn.

[Following is an account of today's major activities in the Washington AEC office.

Don Ferguson from ORNL called the office to report that the HUTCH heavy element experiment could not be conveniently mined to obtain quantities of curium-250 because the radioactive debris was widely dispersed in the rubble. Drilling and mining would cost on the order of several million dollars.

A letter to me from Henry Kissinger arrived which gave written approval to conduct the MILROW test.

Commissioner Johnson learned that hearings would be held by the Senate Foreign Relations Committee on a resolution introduced by Senator Gravel of Alaska which called for establishment of a committee to review the international implications of underground nuclear weapons testing (the emphasis in the hearings to be placed on the forthcoming MILROW test).

Dr. Heffner in OST called Johnson to request that the Pitzer Panel Report be released before the hearings because Dr. Pitzer had been asked to testify.

In order to meet the 75% reduction in construction expenditures for FY 1970, the General Manager found it necessary to reduce spending for the 200 Bev Accelerator to \$5.4 million. This information was communicated to Dr. Wilson

at Batavia. He objected in a most strenuous fashion. Hollingsworth then talked to Wilson and found that he considered \$13 million to be the bare minimum required to keep the accelerator on schedule, but finally agreed to live with \$8.5 million. Commissioners Johnson and Larson met with Hollingsworth and agreed to provide Wilson with the \$8.5 million.

Attached is a copy of a memorandum submitting an item for possible use in the daily report to the President.]

Friday, September 26, 1969 - Leningrad

I had a light breakfast of ham and salami sandwiches with hot tea before arrival in Leningrad at 9 a.m. Greeting us at the station were Sergei T. Frenkel (Professor of Physical Chemistry), who explained he was representing Goldanskii; Professor Anatoli A. Petzov (corresponding member of the Academy of Sciences and a Professor of Organic Chemistry, Leningrad Institute of Technology); Mr. Michail M. Bogoslovski (foreign department of Academy of Sciences in Leningrad), and Mr. Keonand A. Koimetz (interpreter for Academy of Sciences).



Leningrad railroad station; September 26, 1969.

L to R: K. A. Koimetz, S. T. Frenkel, V. I. Spitsyn, Seaborg, M. Bogoslovski.

The Mayor's car was placed at our disposal for our stay. We then rode to the Astoria Hotel where I checked into room 108. We met Semen I. Volfkovich (Member of the Academy of Sciences and Professor, University of Moscow) in the lobby.

September 25, 1969

Mr. Albert Tonor
Staff Assistant
The White House

Dear Mr. Tonor:

The following item is submitted for your possible use
in the daily report to the President.

Sir Philip Baxter, Chairman of the
Australian Atomic Energy Commission, will be
visiting Washington during the period October 15-
18. Plans are being made for a personal meeting
between Sir Philip and Chairman Seaborg during
this time and the AEC will probably host a luncheon
in Sir Philip's honor with appropriate representa-
tives of other Federal agencies in attendance.

It can be expected that Sir Philip will
desire to explore further the possible use of
nuclear explosives for peaceful purposes in
Australia and to develop further information
on the economics of U.S. nuclear power systems
which might be of value to the Australian economy.

Sincerely,

Original signed by
Justin L. Bloom

Justin L. Bloom
Staff Assistant
to the Chairman

cc: Thomas Whitehead

Chairman Seaborg
J. Rubin
V. Gearin

JLB:ncm

In my room they gave me a briefcase with a book with the symposium papers (only 4,000 copies printed) and a Mendeleev Medal (only a few hundred copies made).

I had a bite of breakfast in my room and then we went to Tavrishesky Palace, where the Mendeleev Congress had started its final day.

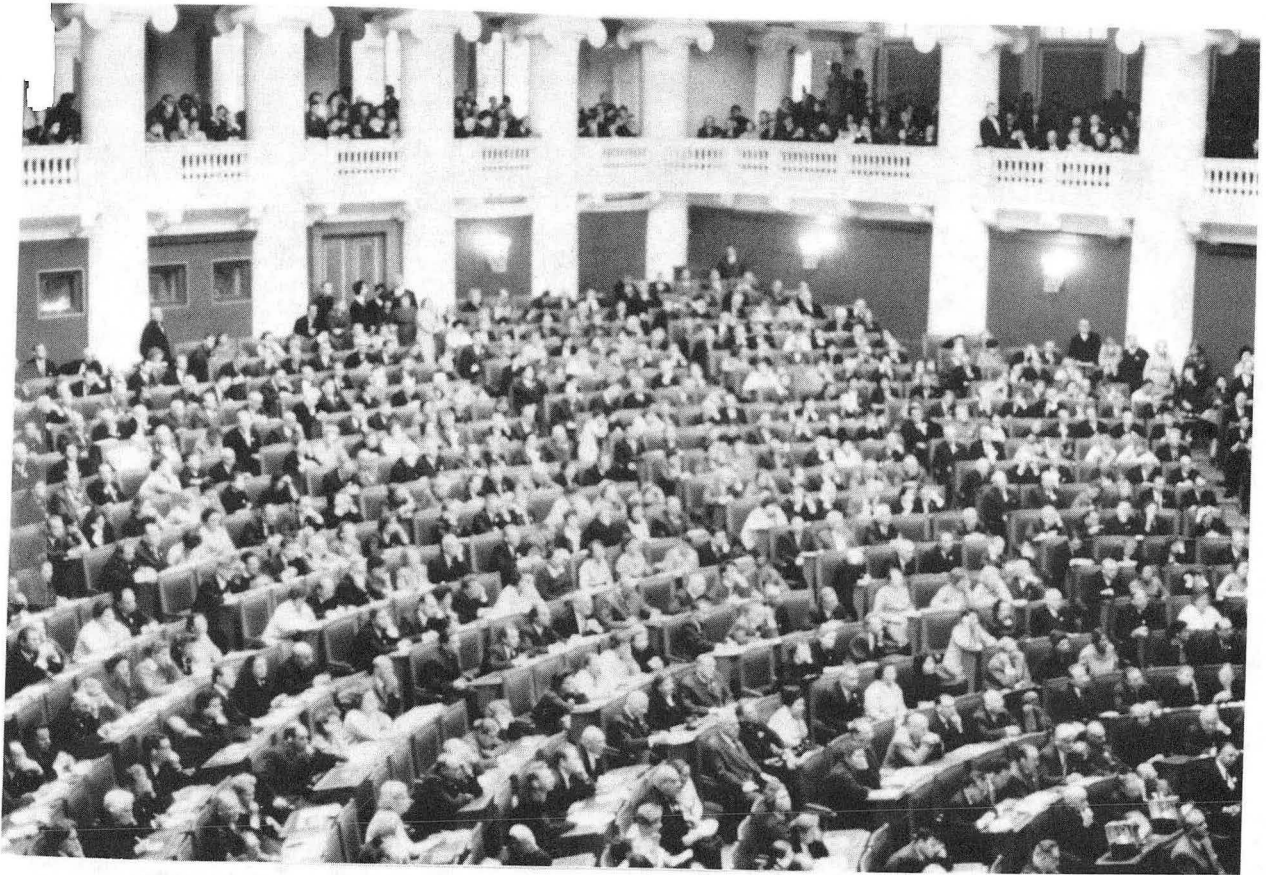
I gave a copy of American Historylands to Academician Nikolai M. Zhavoronkov, a Vice President of the Mendeleev Congress and the senior Academician present.

We then heard the lecture of Academician V. I. Spitsyn in the huge, beautiful conference room (former parliamentary meeting room). Following another short lecture I was introduced and I gave my lecture "New Dimensions for the Periodic System." (See pictures next page.) There was considerable trouble with the slides. Their projector for American size slides (3-1/4 x 4 inches) was not adequate (the projection was much too small); a few 2 x 2 slides (which they had prepared from material I had sent them) were used; there was no pointer for the slides and the room was too light (due to a skylight). I did my best to describe the slides and the nuclear reactions, electronic structures, etc. verbally. The lecture was well received with great applause before and after. I talked for about an hour. There were about 2,000 people present. Frenkel provided a simultaneous translation in Russian through headsets during my lecture. While in the lecture hall, among those I met were Academician Igor Petrianov-Sokolov and John W. T. Spinks, President of the University of Saskatchewan in Canada; Julie Rubin took our picture at his request so we could send it to him. (Picture on page following.)

Following my lecture we went to a room in a nearby building and had some sandwiches, cheesecake, tea, etc. Here I was interviewed by V. E. Zhvirblis of Chemistry Life. I also autographed a number of programs, books, etc. I



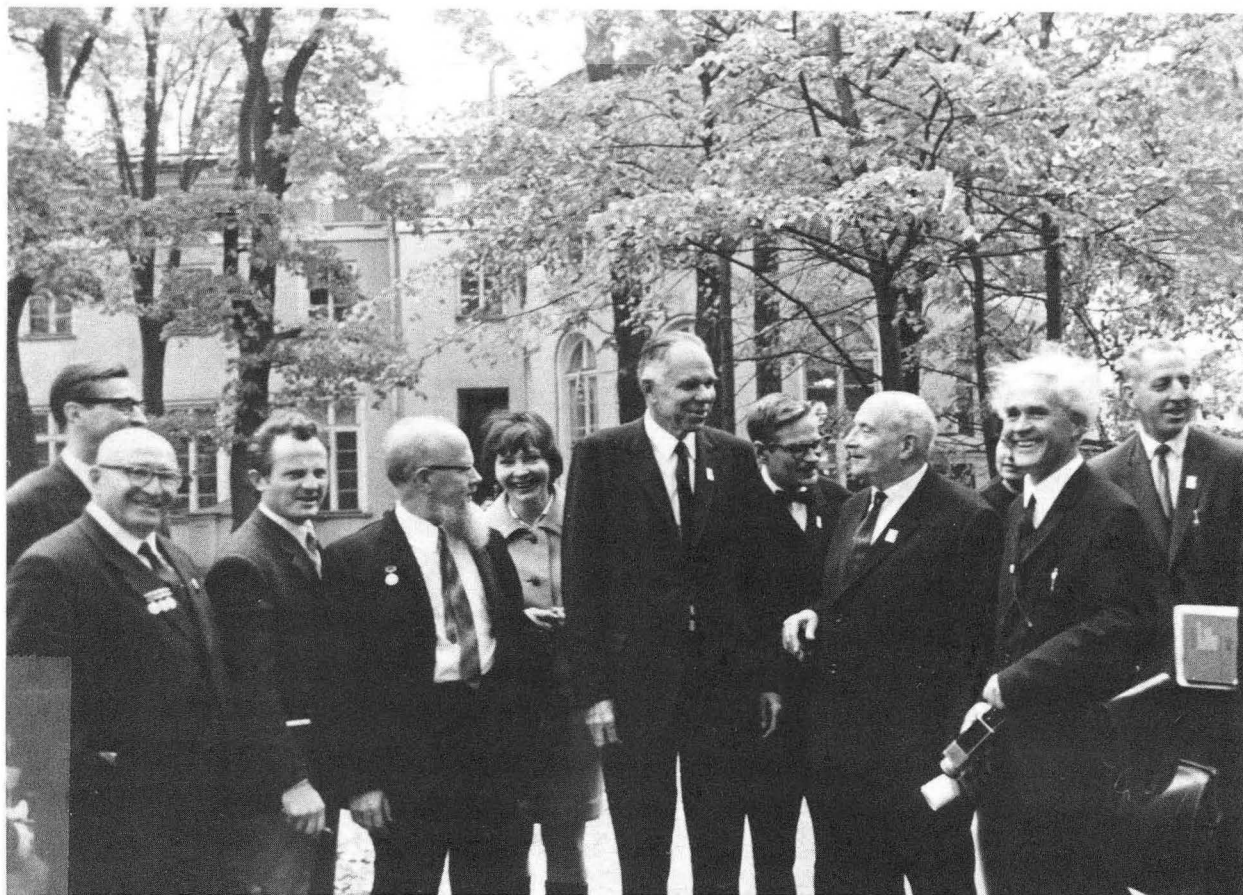
Seaborg delivering lecture beneath picture of Mendeleev, Tavrishesky Palace, Leningrad; September 26, 1969.



Audience in lecture hall of Tavrichesky Palace, Leningrad; September 26, 1969.



Tavrichesky Palace, Leningrad; September 26, 1969.
L to R: Seaborg, J. W. T. Spinks.



Outside Tavrishesky Palace, Leningrad; September 26, 1969.

L to R: Strongin, (unidentified behind Strongin), (unidentified), I. Petrianov, (unidentified woman), Seaborg, M. Bogoslovski, S. I. Volfkovitch, V. N. Petrov, E. Rubin (behind Petrov), J. Rubin.

was given Russian books on the actinide elements, chemistry, etc. — Periodic Table of Mendeleev and the Electronic Structure of Metals by U. K. Grigorovich and The Distribution of Atomic Electrons and the Rules for Filling the $n+1$ Group by V. M. Klechkovsky.

I saw and talked to Emilio Segrè, who told me about his talks with Flerov. Flerov thinks that Al Ghiorso may be failing to see his 0.3 second spontaneous fission activity because of peculiarities of directions of recoil. Flerov also thinks that Ghiorso's element 104 isotopes may actually be due to products of bombardment of lead impurity in his target (i.e., effect is due to isotopes just above lead, not to element 104). I didn't see Flerov at the Parliamentary Hall where I gave my lecture but of course he may have been present. I met Dr. Viktor M. Vdovenko (Director, V. G. Khlopin Radium Institute in Leningrad, which I visited in 1963.)

After our snack we returned to the conference room where Yakov K. Syrkin gave a long talk (1 hour and 20 minutes) on his new theories of molecular orbitals and valency. The Mendeleev Congress was brought to a conclusion with a ringing statement by Sokolov, who appealed to all chemists of the world to resist the actions of imperialist countries in conducting research on biological and chemical weapons. Zhavoronkov then made the concluding summary statement. He said the Mendeleev Congress had been attended by 2,150

delegates, including 80 people from 12 other countries. There were 21 papers given at plenary sessions and there were additional symposia like the one on the superheavy elements, which drew 250 people. He apologized for the slide difficulty that occurred in my talk. He said that the next Mendeleev Congress would be held in 1972 or 1973, possibly in Novosibirsk.

At the conclusion of the Congress, after saying goodbye to Zhavoronkov and others, the Rubins and I went with Frenkel, Petzov, Koimetz, Bogoslovski, and Volfovitch (who left after a short while) to a room where we were served refreshments. I was interviewed by Aziel M. Zuckerman (of Nesmeyanov's Institute of Organic Chemistry), serving as a consultant for Priroda magazine (Soviet nature magazine), who asked me questions and I gave brief answers. Also present was Ivan P. Fedchuk of the Editorial Board of Priroda magazine. They promised to send me their write-up of my interview for editing. I also gave them a copy of my manuscript New Dimensions for the Periodic System, which we had brought to Leningrad, and which was the basis for my lecture, for publication in Priroda magazine. Anna G. Samartsova, who worked on a sculpture of me during my 1963 visit to the Khlopin Institute, came in to say hello to me. Zuckerman and Fedchuk were quite pleased with my reference to Priroda magazine and my slide of Priroda's diagram of the 1955 Berkeley medeleevium discovery experiment, which I used in my lecture.

The Rubins, Petzov, Frenkel, Bogoslovski, Koimetz, and I, and some photographers then went to the Mendeleev Museum at the University of Leningrad. Here we were shown around by Natasha Shipkova, who is studying in the University of Leningrad to become a secondary school chemistry teacher. Mendeleev lived in these quarters, now serving as the Mendeleev Museum, from 1866 to 1890--they were the quarters which were furnished to the Professor of Chemistry at the University of Leningrad. The first room we saw was the parlor; this contained a tablecloth in which Mendeleev and many of his colleagues had written their names in chalk, which Mendeleev's daughters and his second wife preserved by embroidering them permanently in the original tablecloth. We saw copies of many of Mendeleev's original articles, and were given copies of some of his early versions of the Periodic Table. We next saw the dining room. Here many versions of his Periodic Law were on the walls. There was also his standup desk where he did much of his writing. Next we saw a sort of study with his post-1890 desk (from another house), a complete set of books that he wrote (dozens of volumes), his music box, eyeglasses, and many other personal items. Pictures and movies were taken during our tour and we may receive copies. Rubin took color pictures of a large group, including two secondary school chemistry teachers in training, and including Natasha Shipkova and Natasha Alexeyeva (see page 171).

The Rubins, Petzov, Frenkel, Bogoslovski, Koimetz, and I then took an automobile tour of the many sights of Leningrad; we were all in one car. Among the landmarks we saw were the Hermitage, the Fortress (Kremlin) of Saint Peter and Paul, St. Isaac's Cathedral, the equine statue of Peter the Great, the Czar's Naval Academy, the old cruiser from which the first shot of the October Revolution was fired. Because the batteries in my super-8 movie camera had burned out, we couldn't take movies. We therefore went to a camera store on Nevsky Street where I bought a Soviet movie camera for about 120 rubles, and 10 rolls of black and white movie film (they had no color film). I used part of the money I had been given earlier, following my lecture. I was given 60 rubles as an honorarium for my lecture to the Mendeleev Congress, 90 rubles by Chemistry Life for the article I wrote for this magazine earlier this year and 80 rubles from Pravda for an article of mine that they published earlier this year. We took some movies with this camera on Nevsky Street.



At Mendeleev Museum, Leningrad University campus; September 26, 1969.
L to R: Natasha Shipkova, A. A. Petzov, Seaborg.



At Mendeleev Museum, Leningrad University campus; September 26, 1969.
Seaborg speaks with a group of school teachers; Natasha Alexeyeva is speaking.

We then returned to the Astoria Hotel to prepare for attendance at the evening's dinner of the Mendeleev Congress. The Rubins and I rode with Koimetz, Frenkel, and Bogoslovski to the Tavrichesky Palace where the Congress dinner was held in a huge ornate hall near the Conference Room. (This Palace is about 200 years old, has been restored; it was built by Catherine the Great for one of her favorite Princes.) Here we were greeted by the mayor of Leningrad, Alexander Sizov (Hero of Labor). We sat at the head table with the Mayor. Segré and Flerov were also at this table. I sat next to Mrs. N. A. Goryunova and Professor Paul Hagenmuller (of Bordeaux, France). A number of people made speeches, which could barely be heard above the din of the more than 300 people at the dinner. I gave a talk (translated by Bogoslovski). I expressed appreciation for my visit to Leningrad, extolled the work of Mendeleev, mentioned his visit to America, described our naming of element 101 in his honor and the role of his Periodic Law in helping to chemically identify a number of actinide elements. Samartsova then came forward and surprised me with the head and shoulders clay sculpture of myself and I responded with thanks. Among the many others who spoke were Robert W. Cairns (representing the American Chemical Society), Sabiry Yunussov (of the Academy of Science, Uzbek SSR, Hero of Labor). Dr. M. Askarov (Institute of Chemistry, Academy of Science, Uzbek SSR) gave me a Samarkand Anniversary pin honoring Alisker Navoiy, medieval poet and scientist.

Professor Marijan Lacan (Professor of Chemistry, University of Zagreb, Yugoslavia) asked my permission to publish the text of my Mendeleev Congress talk "New Dimensions for the Periodic System"--the one that Priroda is going to publish--in their magazine Chemistry in Industry, and I granted this permission.



Tavrishesky Palace, Leningrad; September 26, 1969.
L to R: S. I. Volfkovitch, Seaborg, M. Askarov, M. Bogoslovski.

I met Professor Nikolai Figurovski, head of history of chemistry in the School of History of Natural Science, Moscow University.

Vladmir O. Mocknach of the Botanical Institute, Leningrad, gave me an autographed copy of a book The Theoretical Basis of the Biological Actions of Halide Compounds which mentions my work on iodine-131.

I met Gennady Yagodin who worked with the IAEA staff until 1966 and whom I met many times in that capacity.

There was a display of books in several bookcases in the room where the Congress dinner was held. This included a number of my books, including my Notre Dame Nieuwland lectures; the Hyde and Seaborg encyclopedia article on the transuranium elements; the Hyde, Perlman, and Seaborg book, The Nuclear Properties of the Heavy Elements; the Katz and Seaborg book, The Chemistry of the Actinide Elements; my Silliman Lectures on The Transuranium Elements; and my book, Man-Made Transuranium Elements; most of these were copies from the United States in English.

Alec Rimsky-Korsakov asked me to convey to Earl Hyde his appreciation for Hyde's sending him a copy of Heath's Scintillation Spectrometry Catalog and other material.

I had a talk with Flerov and K. A. Petrzhak, with Rimsky-Korsakov as interpreter. Flerov wanted to know what I wanted most to discuss on my visit to Dubna on Sunday and I said elements 104 and 114. He said he would ask his people to repeat (in 5-10 minute versions) the talks they gave at the Transmendelevium Symposium of the Mendeleev Congress because I had missed this. I explained the telegrams I had sent him suggesting deletion of the portion of my manuscript for the Mendeleev Congress in which I said he (Flerov) had attempted to produce element 114 by bombarding plutonium-244 with calcium-48. (I had learned from his telegram that he had not performed this experiment.) He said that calcium-48 costs \$1,000,000 per gram and is not easily recoverable after use in the ion source. He said they will soon accelerate zinc-64 in their heavy ion accelerator. He expressed the view that the International Union of Pure and Applied Chemistry (IUPAC) is too quick to adopt the names of newly discovered elements; to my surprise he was apparently referring to the adoption of the name kurchatovium (which they actually have not done at the top Council level--only at the Committee level, a fact that Flerov doesn't seem to understand). This statement of his seemed to imply that he feels some doubts about his claims to the discovery of element 104 but he was also referring to nobelium and lawrencium.

The Rubins and I rode back to the Astoria Hotel in the large car with Frenkel, Koimetz, and Bogoslovski. When Julie returned to his hotel room, he found that his briefcase and my newly purchased Soviet movie camera were missing. With the help of Professor Spitsyn, he retrieved them from the police.

During the day I received from Academician B. M. Kedrov (Director of the Institute of Philosophy) a copy of the book The Law of Periodicity and Chemical Elements, by B. M. Kedrov and D. N. Trifonov. I received from someone a book Mendeleev: Reminiscences of His Contemporaries. At the Mendeleev Museum I received a copy of Museum of Mendeleev Guide Book and a reprint of "The Mendeleev Archives and Museum of the Leningrad University" from Journal of Chemical Education 37, 625 (1960) by V. A. Krotikov of Leningrad University.

[Following is an account of today's major activities in the Washington AEC office.

Tom Whitehead of the White House staff called Justin Bloom at 9:25 a.m. to direct that the information package for MILROW not be released as scheduled (3 p.m., September 26) and to withhold the information until further word was received from the White House. Commissioner Johnson and the General manager were informed and the limited number of copies which had already been sent out were retrieved.

Commissioner Johnson called Dr. Heffner of OST and informed him of the call from the White House. Heffner had not heard about this turn of events and called Johnson later in the day to suggest that it might be released after the President's news conference scheduled for today. This conformed to word obtained by Bloom from the White House that the only reason for holding up release of the information was to avoid detracting from press coverage of the President's news conference.

Evidence was obtained that the Soviet Union had conducted an underground nuclear explosion at a location south of Stalingrad. The location indicated that it might be a Plowshare type of experiment.]

Saturday, September 27, 1969 - Leningrad

I had breakfast in my room. Academician Ivan P. Selinov (Physical Institute, Moscow) talked to me in the lobby and gave me a copy of his book, Atomic Nuclei and Nuclear Transitions and two large charts (Periodic Table and Isotope Chart) and several small periodic tables. He is a member of IUPAC Commission on Atomic Weights. The Rubins and I then rode with Frenkel, Bogoslovski, and Koimetz to the All Union Institute of Metrology (of Mendeleev). Here, as often during our stay in Leningrad, we were joined by Vladimir A. Alexandrov, a technician from the Leningrad Academy of Science. Before our tour of the Institute we met in the office of Professor V. O. Arutunov, Director of the Institute. Present were B. N. Oleinik (Deputy Director), L. K. Kayak (Division Chief, Linear Measurements), M. F. Yudin (Division Chief, Ionizing Radiations), A. I. Kartashev (Division Chief, Optics), I. A. Yaritsyna (Chief of Laboratory, Ionizing Radiations), F. M. Karavayev, S. A. Smolitch (Scientific Secretary), B. I. Ignatyev (translator). Arutunov explained the work of the Institute. The Institute is organized in some 60 divisions and was noted as having responsibilities similar to our National Bureau of Standards. Among the divisions are theoretical, magnetics, thermal, optics, and ionizing radiation. There are about 300 control laboratories throughout the Soviet Union that are a part of the Metrology Institute and have the responsibility of verifying reference standards and calibration of measuring equipment. It was stated their control laboratories have the "right and duty to stop production in a plant if a violation of the standard is detected."

I expressed appreciation for the special arrangements made to permit my visit to the Metrology Institute on a Saturday. Since Arutunov had referred to Dr. Allen V. Astin of NBS in his explanation of the work of his Institute, I noted that Dr. Lewis Bransomb is now Director of NBS.

He then presented the Rubins and me each with a book describing the work of the Metrology Institute and a medallion commemorating the 75th anniversary of the Institute (1893-1968), identical with those to be presented the participants in a Metrology Conference in Leningrad next week (in honor of the Mendeleev Centennial). I gave him an AEC cigarette lighter and an autographed copy of Man-made Transuranium Elements.

We then toured the Mendeleev rooms. We saw the appointment calendar (stack of sheets) in Mendeleev's study with the sheet for January 11, 1907, on top, with a note in Mendeleev's handwriting (his last in this appointment calendar) saying he had an appointment with the Minister of Industry for 1 p.m.; he became sick, didn't return to the office in the intervening days, and died on February 14, 1907.

Arutunov then led us on a tour of the Institute. This consisted of very brief 5-10 minute stops at several rooms where specific standard investigations were conducted. Among these were light frequency work for timing devices using krypton in the optics department under Kartashev, voltage and ampere calibration data in the electrical measurement department under P. N. Goryunov, and dosimeter work in the neutron calibration department under Yartisyana.

We also were shown the official U.S.S.R. standard for the meter and kilogram which were located in a special vault requiring three separate keys in the possession of different people to open.

Arutunov then had to leave to meet a train with an incoming dignitary; Deputy Director Oleinik took over the tour.

Volfkovitch joined us on the last leg of the tour. I gave him an AEC cigarette lighter.

We took movies with my Soviet movie camera before and during the tour, including a view of the huge Periodic Table on the side of the building and the large statue of Mendeleev. Color stills were also taken.



Mendeleev statue, Metrology Institute, Leningrad; September 27, 1969.

The group (Rubins, Frenkel, Bogoslovski, Koimetz, and I, and Petzov who had joined us) then rode in the large car to the Hermitage. Here we were met by Vitaly Suslov, Deputy Director for Science, who greeted us and then turned us over to Mrs. Rimma M. Ordjevskaja who led us on a tour of selected parts of the buildings (which consists of the Czar's Winter Palace and pre-revolutionary museum buildings). There are 2,400 rooms in all, of which 400 are open to the public. First we saw the 26 Rembrandts. We had a look at a few of the 41 Rubens and 26 Van Dycks. We then saw a number of the French Impressionist paintings. We then went to another section where we saw a large number of gold archeological specimens, as well as many gold, silver, and copper vessels. In other rooms in this area we saw gold ornaments from the Ukraine of the period 600 BC, an iron axe for this period, gold coins, a huge silver vase plated with gold, gold rings decorated with iron of 400 BC, a large collection of watches (the oldest is 400 years old), snuff boxes set with large numbers of diamonds, rubies, sapphires, emeralds, etc. We were given a descriptive book and map guidebook of the Hermitage.

We then rode back to the Astoria Hotel. We checked out and had a bite to eat in the restaurant with Frenkel, Bogoslovski, and Koimetz. Petzov and

Alexandrov joined us in the lobby. Nikolai M. Zhavoronkov also came by to say goodbye. All, except Zhavoronkov, went with us to the railroad station to see us off; here we were joined by Mrs. Yakuskina (phonetic spelling) and one or two others to see us off. We met V. I. Spitsyn who was going on the same train to Moscow as we.

We said goodbye and the Rubins, Spitsyn, and I rode on the "Red Arrow" train, which left Leningrad at 1 p.m. and arrived in Moscow at 8:30 p.m. We crossed the Volga River about 6:30 p.m., and stopped at the city of Tallinn. Just south of Tallinn, we crossed a huge man-made lake, the "Sea of Moscow." I sat next to Spitsyn which gave us a chance to have a long talk. He told me that the house I rested in when I visited New Melekh in May 1963 was built especially for me and is referred to as the "House of Seaborg." We had sandwiches for our supper, purchased from vendors.

We were met in Moscow by Squire, Titkov, Serov, and others and driven to the Hotel Sovietskaya, where I checked into room 330.

Sunday, September 28, 1969 - Moscow

I had some bread and cheese and tea in my room. Myron Kratzer, Julie Rubin, W. N. Harben and I then met A. M. Petrosyants and N. A. Titkov and rode to Dubna. I rode in Petrosyants's car with him and Titkov. Petrosyants told me about his admiration for Presidents Kennedy and Roosevelt. I told him about my Russian books and he said he would help me collect the royalties. We arrived at Dubna (which is on the Volga River) at 9:45 a.m.; we made it in one hour and a half which they said was a record. We were met by Professor Khristo Y. Kristov (Chairman of the Scientific Council on High Energy Physics and Vice-Director of the Joint Institute at Dubna) and Dr. Yuriy A. Schcherbakov (Scientific Secretary of the Scientific Council at Dubna).

It was raining when we arrived. We went to Nilolai N. Bogolyubov's (Chairman of the Joint Institute for Nuclear Research) conference room in the Administration Building. (See picture next page.) We were served sandwiches and tea. Present were Bogolyubov, Shcherbakov, Khristov, Konstantin N. Meshcheryakov (head of accelerator installation), Ivan I. Smolin (State Committee for Atomic Energy), Viktor I. Karpovskiy (Administrative Director at Dubna), Aleksey I. Romanov (Deputy Director of the Section for International Relations), Georgiy N. Flerov, Julie Rubin, Myron Kratzer, and W. N. Harben. Bogolyubov told us Dubna has a staff of 3,000 people, which includes 500 scientists and 1,000 engineers, and an annual budget of \$25,000,000. I gave Bogolyubov an autographed copy of America's Historylands.

We then rode to the Laboratory for Nuclear Reactions (G. N. Flerov's laboratory) to a conference room. Present were Flerov, Yuriy T. Oganessian, A. M. Petrosyants, N. A. Titkov, Smolin, Ivo Zvara, Konstantin Petrzhak, Bogolyubov, Khristov, Rubin, Kratzer, and Harben.

Bogolyubov told me that Flerov has a group of about 500 people, 100 scientists and 400 technicians.

Flerov made introductory remarks describing the program for the day. He gave us an agenda, said he would discuss especially elements 104 and 103 and the search for element 114 in nature.

First there was the presentation of Oganessian on element 104. He said in 1964 they found a 0.3 second spontaneous fission activity which they assigned



Arrival at Laboratory for Nuclear Reactions (JINR), Dubna; September 28, 1969.
L to R: Y. T. Oganessian, N. A. Titkov, N. N. Bogolyubov, Seaborg, I. Zvara,
A. M. Petrosyants.



Briefing in Conference Room at JINR, Dubna; September 28, 1969.

L to R: Seaborg, K. A. Petrzhak, I. Zvara, Y. T. Oganessian, G. M. Flerov, N. N. Bogolyubov, A. M. Petrosyants, N. A. Titkov.

as element 104. The reaction was $^{242}\text{Pu} + ^{22}\text{Ne} \rightarrow ^{260}_{104}$. Possible mass numbers are 259, 260, 261 with 260 most probable. This agrees with Viola and Seaborg predictions. He showed Al Ghiorso data for mass numbers 257, 258, and 259. On a S.F. plot he showed the Ghiorso prediction of 10^{-6} to 10^{-7} seconds for the S.F. half-life of $^{260}_{104}$. He showed a chart with Ghiorso data on the alpha emitting isotopes of element 104-257, 259, etc., showing no presence of 260. The $^{22}\text{Ne} + ^{242}\text{Pu} \rightarrow 104$ reaction gives forward projection of the product, some 4-5 degrees, whereas HI, α xn reactions give large angle yields.

He showed a diagram of the apparatus; S.F. is detected by special glass detectors using a moving belt. They use change in collimation to detect compound nucleus formation.

He gave me a diagram of the alpha spectra obtained in the products from the Pb + C, reactions compared with that from the products obtained by Ghiorso.

The collimator method is better for use in the $^{249}\text{Cf} + \text{C}$ reactions for measuring excitation functions. He said Ghiorso's $^{258}_{102}$ might be actually due to an Am isomer. Also 0.15 second and 10^{-6} second $^{260}_{104}$ might be isomers. The new value for the S.F. half-life of $^{260}_{104}$ is 0.15 second.

They claim Ghiorso's 103, 102, and 2 of his 104 alpha peaks are due to Pb plus C ions. I told them Ghiorso takes good account of Pb impurities.

Flerov said there is a big discrepancy between their work and the U.S. work. The average $T_{1/2}$ of Ghiorso's 104 isotopes is greater than those of 102 isotopes. This demands artificial assumptions for explanation. Analysis has shown several sources of errors in Ghiorso's work - Pb, Bi, impurities in the target, etc., and probably insufficient account of S.F. isomers.

Zvara next described chemical experiments. He showed a diagram of his chlorination apparatus, with passage of gas through a chromatography column to mica detectors.

Zvara then presented new data. He finds a Hf retention time of 0.1 sec. in chromatographic column. He could, hence, only observe the tail of the 0.15 sec. S.F. Main part is due to other 104 isotopes with some branching decay by S.F., say approximately 3 sec. About 60 percent reach the mica (calibrated with Hf).

I said this means their posture has changed seriously. They now claim to have discovered a new, approximately 3 sec. S.F. element 104, and this isn't the 0.3 sec S.F. activity found in 1964. Flerov said thus there are several S.F. element 104 isotopes and they will do chemistry on these later.

Now Flerov went on to element 103. In 1961 Berkeley found a $T_{1/2}$ of 8 ± 2 sec. and $E_{\alpha} = 8.35 \pm 0.05$ MeV assigned to mass number 257. Dubna found mass number 256, with a 35 sec half-life in 1966. In 1967 Dubna found mass number 257, with a $T_{1/2} = 40$ sec. (This was done in connection with work at Dubna on element 105.) Berkeley then changed their mass assignment to 258, but their own analysis in 1961 should exclude this. Thus all isotopes of element 103 that might have $T_{1/2}$ of 8 sec. are eliminated. Thus, let us go to collimation method--must use this method in the U.S. either to find this activity or retract the results of 1961. He would like to give data on collimation method to people in U.S. in order to straighten this out. This would be very easy because U.S. people usually use pure isotopes of Cf. I pointed out that he rules out mass number 258 on the basis of Ghiorso's excitation functions (which they themselves say aren't accurate), and Ghiorso now feels the mass number is 258 and has produced it by other methods with slightly different $T_{1/2}$, perhaps approximately 6 sec. In the meantime they are keeping Lr out of the Soviet Periodic Tables--they will be happy if Ghiorso is correct--a difference of mass number of one is of no consequence.

Flerov said now I will see the apparatus for element 104--intensity of beam raised 8 times. We saw the beam channel and moving belt set up in the next room. Zvara then showed us his apparatus in this same room. He said he understands the transport of Pu via PuCl_4 --it has a transport time of hours compared with months for Fm and seconds for element 104. They rule out Pu by measuring alpha particles from Pu^{238} . Flerov then described work on their search for element 114 and neighboring elements. He described Fowler's observation of $Z=110$, but has doubts about it.

Hence, he said we should do this in the laboratory. If these nuclei exist in cosmic rays, we should be able to make them. To find in cosmic rays they must 179

have $T_{1/2}$ of 1 to 10×10^6 years. These heavy elements are made in space all the time. Hence we should look at 100 sq. km. of ice from Antarctic. In the case of very short half-lives we obtain the isotopes from accelerators. For $T_{1/2} > 10^8$ years we should find abundance on earth diminished by 2^{50} if age of earth is 5×10^9 years. Flerov said thus there are three floors for exploration which were shown in different colors on an interesting diagram. For the upper level (i.e., presence in nature) theoretical calculations suggest the search for element 110 is best—but Dubna doesn't believe these theoretical calculations. When he and Petrzhak looked for S. F. in 1940 they found S.F. in lead but ruled out this possibility due to the prediction of $T_{1/2}$ of 10^{40} years for S.F. for lead. Flerov knows that in the U.S. we are looking for eka-platinum and eka-gold. There are three methods of decay—alpha, beta, and S.F. They looked for S.F. due to high sensitivity of detectors of 10 square meters and the only background contamination is uranium. They put 1 square meter of lead next to mylar film for 100 days at 50 meters below ground and observed 7 tracks in 10 days of reading.

To increase the exposure time they looked at 100- to 200-year-old lead glasses, found 100 tracks, found no effect in Bi, Hg, W glasses. They ruled out uranium easily—this accounts for only a few percent of effect. Cosmic rays ruled out because some glasses showed no effect. They crushed the glass, spread it out and found several tens of counts of S.F. tracks. They ruled out uranium by counting alpha particles (without discrimination of energies); the total was so low that uranium was eliminated as a potential source. Thus, there is a S.F. element, connected with lead, but no evidence of Z or A. Hence, they will look for neutrons; Nix predicts 10.5 neutrons per S.F. He showed apparatus for coincidence counting of neutrons, detected by counting protons from the $\text{He}^3 + n \rightarrow \text{T} + \text{p}$ reaction. The apparatus is surrounded by 6 meters of concrete and anti-coincidence counters to rule out cosmic rays. They will study not only glass, but other minerals and perhaps look in volcanic minerals.

They are not looking at Antarctic ice; other methods are better and more convenient.

They collect manganese modules, which according to Vinogradov may selectively absorb the superheavy elements from huge volumes of ocean water; these occlude small pieces of glass. This glass contains tens of thousands of S.F. tracks per square centimeter.

The middle floor of his diagram can be reached by use of heavy ion accelerators; they have discussed this with Livingston of Oak Ridge; ions as heavy as xenon are best. The concentration of a superheavy element (114 or 112) is 10^{-12} if $T_{1/2}$ S.F. is 10^8 years in the glass from the manganese module. Hence, it is necessary to process 1,000 tons to get 1 mg.

I asked if they plan to build new heavy ion accelerators. Y. S. Oganessian responded by saying xenon should be as good as uranium; they can accelerate xenon by increasing the magnetic field of their 310 cm. cyclotron from 16.7 to 20 kilogauss. This they will do next year. I asked about the work of Victor Cherdyn'tsev. Flerov said this is a continuation of the work of Schintlemeister. Flerov said he found a 4.5 MeV alpha emitter with the chemical properties of osmium. He thinks there is little hope of finding this to be a superheavy element. This work is not done here. Incidentally they forbid work with californium at the Laboratory for Nuclear Reactions (Flerov's laboratory) at Dubna because it would interfere with their work on S.F. I

mentioned the work of Anders of the University of Chicago on xenon-136 thought to come from element 112 in chondrites and they are familiar with it.

Petrzhak said they have found the ratio U^{235}/U^{238} is about 0.7 percent in about 40 meteorites and they want to know if this is true in lunar material (would establish origin of moon); I said I'll ask if this was measured in lunar material and let them know.

Flerov suggested there be an exchange of people between Dubna and Ghiorso's laboratory to settle the differences on elements 104 and 103.

We saw the S.F. counters (for glasses) in the same neighboring room.

We saw the shielded neutron counter to record double and triple coincidences to count old glass (30 years old).

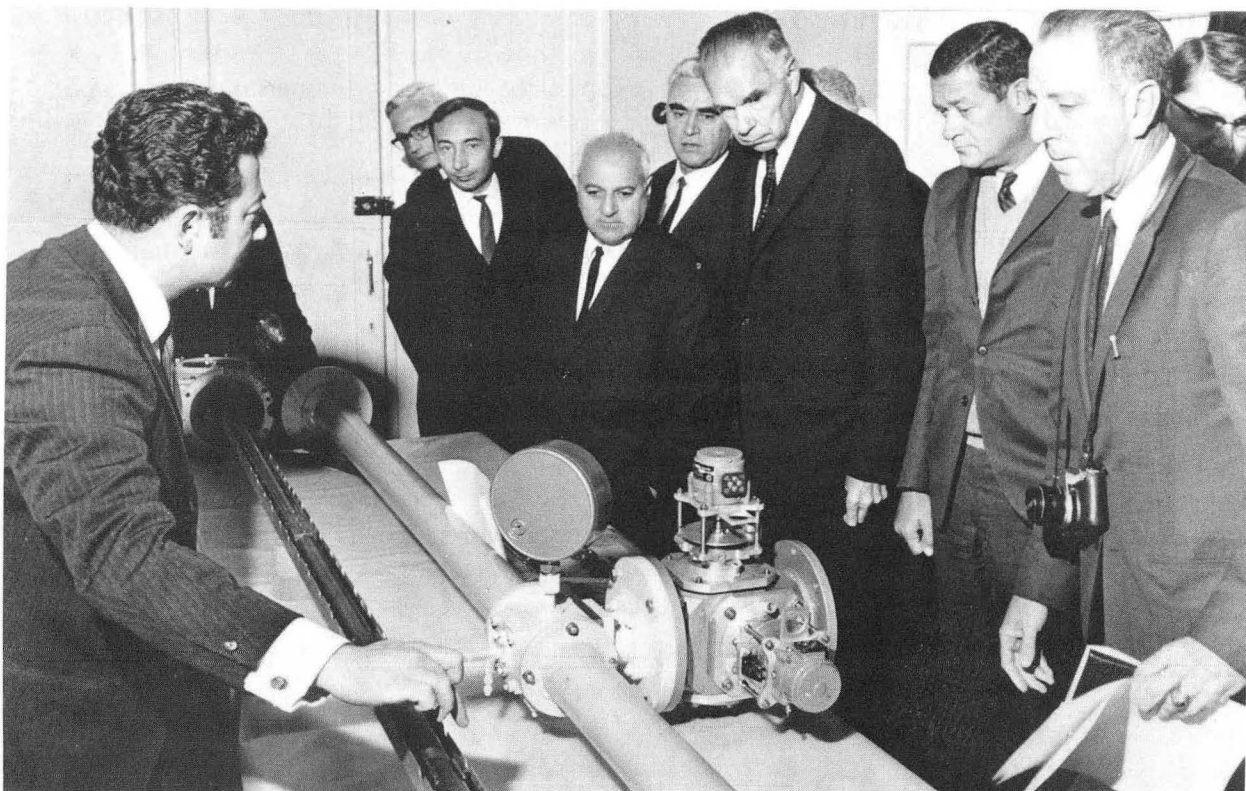
Flerov thinks more will be done on the transuranium elements in the future than has been done in the past. He thinks neutron counters will be very important in this future.

We then visited the 310 cm. heavy ion cyclotron in the basement (lower level) of the building. This will be rebuilt to 400 cm. (the pole pieces are ready) and 20 kilogauss as soon as they finish the business with elements 104 and 103. This rebuilding will take about a year and will enable them to accelerate xenon ions to 8 MeV per nucleon.



Viewing pole piece of 400 cm. cyclotron, JINR, Dubna; September 28, 1969.
L to R: Y. D. Vorobyev, W. N. Harben, V. I. Karpovskiy, G. N. Flerov, M. Kratzer, Seaborg, J. Rubin, Y. T. Oganessian, A. M. Petrosyants, N. A. Titkov, 181
N. N. Bogolyubov.

We then saw one of the three experimental areas for heavy elements--the one where work on elements 105 and 103 is done (the other two are devoted to 104 and 102 and we didn't see them). We saw the beam entry system, target transportation system, etc. They have seen a total of 12 105-103 delayed coincidence pairs. They see about one per day. The cyclotron delivers about 2.5 particle microamperes of ^{22}Ne now, up a factor of 8 since 1963.



Description of element 105 apparatus, JINR, Dubna; September 28, 1969.
L to R: Y. T. Oganessian, W. N. Harben, N. A. Titkov, A. M. Petrosyants, K. N. Meshcheryakov, Seaborg, M. Kratzer, J. Rubin, and I. Zvara.

After seeing the cyclotron area we rode to the Dubna Hotel, where after putting my coat in room 126, we went to a dining room and had lunch. Present were Petrosyants, Bogolyubov, Lev A. Artsimovich, Flerov, Oganessian, Zvara, Titkov, Smolin, Petrzhak, Shcherbakov, Karpovskiy, Yurii Tumanov (the photographer), M. M. Lebedenko (head of Dubna publication section), A. Serov, Meshcheryakov, Rubin, Kratzer, Harben, and I. There were many toasts by Petrosyants, Bogolyubov, etc. I offered a toast expressing pleasure with our visit, recalling our May 1963 visit, thanking Flerov and his group for appearing in the laboratory on a Sunday, saying he has an energetic and fine group, expressing pleasure they are working on transuranium elements on such a large scale because this helps all of us in this field, and finally expressing hope for increased cooperation in peaceful uses of atomic energy between the Soviet Union and the United States. I presented a number of gifts to the group including Apollo 11 pictures to Artsimovich and Bogolyubov; autographed Man-Made Transuranium Elements to Flerov, Oganessian and Zvara; also a copy of my Annual Review article to Zvara; a "Seaborg on Science" record to Petrzhak, Meshcheryakov and Lebedenko. After lunch I gave an AEC cigarette lighter to Tumanov, and Rubin took a picture of the two of us to send to him.



Touring the JINR, Dubna; September 28, 1969.

L to R: Y. A. Shcherbakov, N. N. Bogolyubov, K. Y. Khristov, Seaborg, J. Rubin, K. N. Meshcheryakov, A. M. Petrosyants, unidentified, N. A. Titkov, W. N. Harben, V. I. Karpovskiy.

I gave an interview on my impressions of Flerov's work and U.S.-Soviet cooperation in peaceful uses of atomic energy to M. M. Lebedenko (as I did in 1963). He also taped my toast remarks.

We took some movies and pictures and said goodbye in front of the Dubna Hotel. (See pictures next pages.)

I rode back to Moscow with Petrosyants and Titkov. Petrosyants suggested that we renew high-level visits (teams led by him and me) to the Soviet Union and the United States next year, possibly May and August. I could decide which visit comes first. I will think it over and get in touch with him through channels to convey my thoughts and then one of us can extend an official invitation. In answer to his question, I told Petrosyants I have doubts about Flerov's work on element 104. He told me that the Soviet Union doesn't need present type nuclear power (due to large hydro and fossil fuel supplies) and would go directly to breeders. They have great success with sodium cooling. He said there is some public opposition to nuclear power.

It was raining all the way back to Moscow. We returned to the Hotel Sovietskaya about 5:30 p.m. and at 6:30 p.m. were picked up by Titkov and Serov (Rubins, Kratzer, John Vinciguerra and me) to go to the Stanislavsky Theater to see the operetta Iolanthe and the ballet Francesca da Rimini. We joined Vitalii and Mila Goldanskii at the Theater and they shared our box with us. We had sandwiches and punch at the intermission.

Goldanskii and I discussed the Dubna work on element 104. He said he thinks that the proof of compound nucleus formation by the collimation method may not

rule out $HI, \alpha n$ reactions. (Note: Hence ^{259}No is not ruled out.) He said they had another ace to play vis-a-vis Ghiorso because of the situation with the so-called 8-second isotope which was erroneously assigned to mass number 257. I explained that this isn't true because Ghiorso can now assign this unambiguously to mass number 258.



Dubna Hotel, Dubna; September 28, 1969.
L to R: Seaborg, A. M. Petrosyants, L. A. Artsimovich.

As Flerov had, Goldanskii suggested that there be an exchange of people between Dubna and Berkeley to work on and reconcile the work on elements 104 and 103. When I said that Ghiorso might not be able to spare someone to do this, Goldanskii suggested the U.S. person might come from another laboratory like Oak Ridge. I said I had the impression that Ghiorso would welcome someone like Oganessian. I told Goldanskii about my talk with Petrosyants concerning recovery of royalties for my Russian books and he said he would help; he said he thinks there may be a 3-year limit and perhaps I should leave a letter request.

I said goodbye to the Goldanskiis and returned to the Hotel Sovietskaya, where we bid adieu to Titkov and Serov.



Dubna Hotel, Dubna; September 28, 1969.

L to R: V. I. Karpovskiy, unidentified, W. N. Harben, K. Y. Khristov, K. N. Meshcheryakov, M. Kratzer, Y. A. Shcherbakov, N. A. Titkov, Seaborg, A. M. Petrosyants, L. A. Artsimovich.

Monday, September 29, 1969 - Moscow, Budapest

I had breakfast in the hotel with the Rubins, Myron Kratzer, John Vinciguerra, N. A. Titkov and A. Serov.

I then had a press conference in the hotel with U.S. reporters. Present were Irwin Chapman (ABC), Michael Johnson (Associated Press), Dean Mills (Baltimore Sun), Jack Winkler (McGraw-Hill), James F. Clarity (New York Times), Edward J. Shields (United Press), and Anthony Astrachan (Washington Post). I was especially interested in the question from Jack Winkler of McGraw-Hill (Scientific Research) on G. N. Flerov's analogy of transuranium research to a hockey game. Flerov says the United States had won the first period by a score of 8-0 (elements 93-101) and the Soviet Union had won the second period by a score of 4-0 (elements 102-105). I said that Berkeley would place the second period score at 3-0-1 (elements 102-104 discovered in the United States and element 105 a tie so far). Among the other questions and answers were: (1) Any further developments on the technical discussion in Vienna on Peaceful Nuclear Explosives? (2) What is the comparative status between the United States and the Soviet Union on nuclear power and nuclear research? I stated the United States had committed more nuclear power plants than the Soviet Union. In research on fusion as a source of power, Soviet Union was probably ahead of the United States. In basic research, I had observed great improvements in the Soviet Union since my last visit in 1963. In certain areas U.S. technology was ahead of the Soviet Union and in others the Soviet Union might at this time be ahead of the United States. Both countries would



Dubna Hotel, Dubna; September 28, 1969.
L to R: Seaborg and Y. A. Tumanov.

be at a comparable level in the foreseeable future. (3) Are any exchanges of scientists planned for Serpukhov? I stated there would likely be exchange of U.S. scientists to this facility and U.S.S.R. scientists to high energy physics work in the United States. (4) Are there any exchanges of delegations currently planned? I stated there would be groups from both countries visiting one another on power reactors and isotope applications before the end of this year. (5) Has there been any decision on Panofsky's recommendation for direct U.S. support with equipment to Serpukhov? I stated the consideration for proceeding with this request is still being evaluated. (6) Were funds and the scientists available to proceed if a positive decision were made on the above question? I stated it would have to be accomplished within our present budget. I further added that some of our scientists felt that doing research in a remote location away from their own laboratory was a very expensive way to accomplish the task. In some cases it was acknowledged this may be the only way to perform certain work.

We then rode with an Embassy driver to the U.S. Embassy where Kratzer, Rubin, Vinciguerra, and I met with Ambassador Jacob D. Beam and Christopher Squire. I explained to Ambassador Beam the hockey game story (described above) related by the McGraw-Hill reporter, Jack Winkler, and added further that the International Union had not accepted the Soviet data on discovery of element 104 or their name, kurchatovium, for this element. Ambassador Beam stated that in reviewing their records about my trip, they recognized that I was the last noncommunist American to have talked to Brezhnev. I mentioned to Ambassador Beam my personal situation of having considerable royalties from my books sold in the Soviet Union and that Petrosyants had agreed to look into the possibility of my collecting these royalties. I reported to Ambassador Beam that Petrosyants had suggested a new exchange of high level delegations headed by Petrosyants and me. Possible dates of May and August of 1970 were suggested and an indication that either group could make the initial visit. Ambassador Beam mentioned a recent cable reporting that a Soviet underground test in a new area had taken place at a location where large oil deposits exist and that therefore the test may have been a Plowshare experiment.

I spoke of my discussions with Petrosyants about a meeting to follow up on our Vienna talks on Article 5 of the Limited Test Ban Treaty as related to peaceful nuclear explosives; I stated that Commissioner Theos J. Thompson would head up our team on the next meeting. I informed Ambassador Beam that a firm schedule for this meeting was being delayed pending State Department agreement on a desirable timetable. We discussed in general terms the status of the NPT and the timing of the Soviet and West German signing of the agreement. As a final topic I described my recent visit to Prague (just before the 13th General Conference of the IAEA), which had been deferred until this year because of the Russian invasion of Czechoslovakia in 1968. I mentioned the probable reasons for my not being invited to visit the principal Czech nuclear research institute, at Rez.

I dictated a letter to Al Ghiorso (to Betty Foster, Ambassador Beam's secretary), summarizing my discussions at Dubna yesterday, for mailing to Justin Bloom in the United States via diplomatic pouch. (This didn't arrive until after I returned to Washington.) We also prepared a letter to A. M. Petrosyants, formalizing my request that the royalties for my Soviet books be placed in an account in the Soviet Union for me.

The Rubins, Kratzer, Vinciguerra, and I then rode in two cars to the headquarters of the Soviet State Committee on the Peaceful Uses of Atomic Energy, where we had a meeting with Chairman Petrosyants, together with M. D.

Millionshchikov (Vice President of the Academy of Science), N. M. Sinev (SCAE Deputy Chairman), K. N. Meshcheryakov, I. I. Smolin (Deputy Head of the International Relations Department), N. A. Titkov (Member of the International Relations Department), A. P. Safronov (Member of the International Relations Department), Julie Rubin, Em Rubin, Myron Kratzer, John Vinciguerra, W. N. Harben, and me.

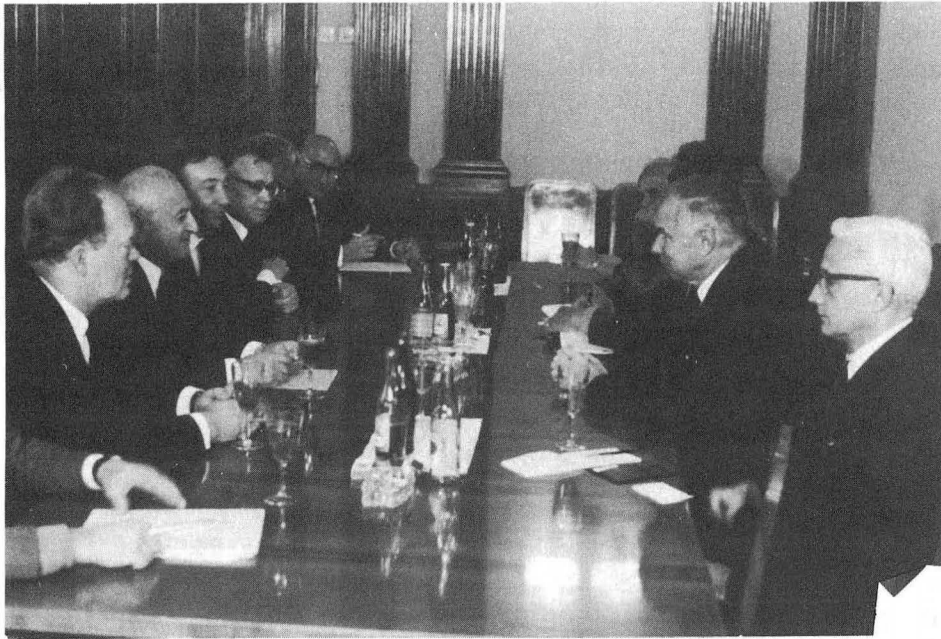
Petrosyants opened the discussion by expressing pleasure at my visit and made a particular point of observing that the scientists in both our countries were eager for increased cooperation...We both expressed hope for continued good relationships and improvements in the future.

Petrosyants noted the plans for two additional exchange groups for power reactors and isotope applications and encouraged the scheduling of these at an early date. He suggested that the United States consider conducting experiments jointly with the Soviet Union as had already been arranged with the French in high energy physics and fast reactors and the British in plasma physics. He recognized the current problem the United States might have in initiating these experiments but urged that they be started in the near future. The matter of U.S. equipment for joint experiments in the Soviet Union was again emphasized and reference was made to Panofsky's support for this arrangement following his recent visit. I noted Panofsky is a very energetic individual but Petrosyants's comment was "not apparently enough as yet." I replied by stating that the problem was above Panofsky's and my level.

Petrosyants suggested that an exchange of delegates at the top level as had been done in 1963 might help widen our cooperation. He suggested an exchange of letters in the near future and agreed to make the first visit or follow my trip to the Soviet Union whichever I preferred. He suggested we look at the establishment of new areas of cooperation and improvement of those already initiated.

I referred to my letter of June 18, 1969, about exchange of two people in each country on solid state physics and plasma physics. Petrosyants voiced agreement to the visit by U.S. scientists to Tokamak research at Kurchatov starting in December after the U.K. work was completed. He stated our suggested assignment of a U.S.S.R. solid state scientist to Wisconsin was not of much interest and asked that we think of something else. The possibility of working with our solid state physicists or in the super-conductivity area seems interesting.

Petrosyants stated that our nuclear power group visiting the Soviet Union would be shown everything. I inquired about access to the fast reactor project at Shevchenko as well as the desalting plant. Petrosyants stated that we could send both reactor and desalting experts to Shevchenko if we wished. With regard to the U.S.S.R. team visiting the United States, they would like to see San Onofre and Connecticut Yankee instead of Dresden and Indian Point as suggested by us. I noted the San Onofre and Connecticut Yankee projects were middle-sized reactors currently operating, at which very little could be observed, whereas Dresden and Indian Point were both brand new plants well along in construction, which would show them examples of our 800-1000 MWe plants. Petrosyants indicated he would speak to his reactor people again about this to find out why they wanted to visit the middle-sized operating plants rather than the new large ones under construction. I was asked whether the United States was investigating production of plutonium with protons as reported by the Canadians; I replied that we were not, also that the Canadians had dropped this project.



Meeting at the Headquarters of the Soviet State Committee on Peaceful Uses of Atomic Energy, Moscow; September 29, 1969.
L to R: (from foreground on left side of table) M. D. Millionshchikov, A. M. Petrosyants, N. A. Titkov, N. M. Sinev, K. N. Meshcheryakov, A. P. Safronov. (From foreground on right side of table) W. N. Harben, Seaborg, M. Kratzer, J. Vinciguerra, E. Rubin.



Headquarters, Soviet State Committee on Peaceful Uses of Atomic Energy, Moscow, September 29, 1969.
L to R: J. Vinciguerra and A. M. Petrosyants.

This completed the formal discussions and Petrosyants in a very enjoyable manner presented to me pictures that had been taken the previous day at Dubna and also gave me in several pieces, each with a related story, a very fine Turkish coffee set. He mentioned that the various pieces were made from hand-hammered bimetal by an ancient art handed down for generations from father to son. The set consisted of a cup, saucer, spoon, pot and stand. In addition, Petrosyants gave me three ceramic figures that also related to a story, about the appearance of the wife of a rich merchant, the one who cares for the children and the one who feeds the children. A gift of a bowl and spoon was also presented to Em Rubin. I presented copies of Natural Wonders to Sinev and Meshcheryakov, a folder of Apollo color pictures to Millionshchikov, "Seaborg on Science" records to Titkov, Serov and Smolin, Polaroid color film (box of 12) and bulbs to Petrosyants, etc. Pictures were taken by Tumanov, who took pictures of our visit to Dubna (Dubna photographer and Tass photo correspondent).

I was interviewed by D. V. Dmitriev of Tass with Titkov as interpreter. His questions included: (1) My view on the value and future prospects for contacts between Soviet and American scientists; I stated these contacts were very important, contributed to better understanding by people in each country, and I expressed hope for increased contacts and understanding by our peoples in the future. (2) Can present exchanges lead to joint experiments; I said yes, and noted this had been discussed in the meeting with Petrosyants. (3) Since the United States and the Soviet Union are world leaders in the development of nuclear science what should we be developing jointly; I answered basic research in high energy physics, accelerator experiments at Serpukhov and later at the U.S. accelerator near Chicago.

At the conclusion of the interview, Dmitriev asked for my autograph and requested the ballpoint pen I used as he has a collection from a number of famous people he has interviewed.

We went to the Hotel Sovietskaya for lunch. I gave my letter concerning royalties for my books to Petrosyants. At lunch toasts were made by Petrosyants and Sinev. There was a toast also by me. I made reference to the Samovar (and near fire in my home during their 1963 visit, related by Belov) in my toast. The attendees were the same as those at the meeting with Petrosyants earlier in the day.

After lunch Rubin and I rode in a State Committee car, with Titkov, to the Institute of Physical Chemistry, of which V. I. Spitsyn is Director, on the outskirts of Moscow. We met him at the main building of the Institute of Physical Chemistry (31 Leninsky Prospekt). This is in the neighborhood of a number of Institutes, including the Institute of Chemical Physics (where V. I. Goldanskii is a division head and N. N. Semenov is the Director), the Institute of Physical Problems (of which Peter Kapitza is the Director) and several others. Moscow University is nearby. Spitsyn rode with us to an area a few kilometers further out from town where a number of institutes have been recently constructed and a number are under construction--a sort of center of institutes. Here is located the newly occupied Division of Radiochemistry of the Institute of Physical Chemistry. We were met by Professor V. M. Lukianovich (Deputy Director of the Institute) and the Scientific Secretary--Yurii I. Kapshaninov.

Our first stop in the building was in a small accelerator room where the main work was described as being with water and aqueous solutions. Our escorts at this laboratory were A. K. Pikayev and B. G. Ershov. (See picture next page.) They gave me several reprints of their work.



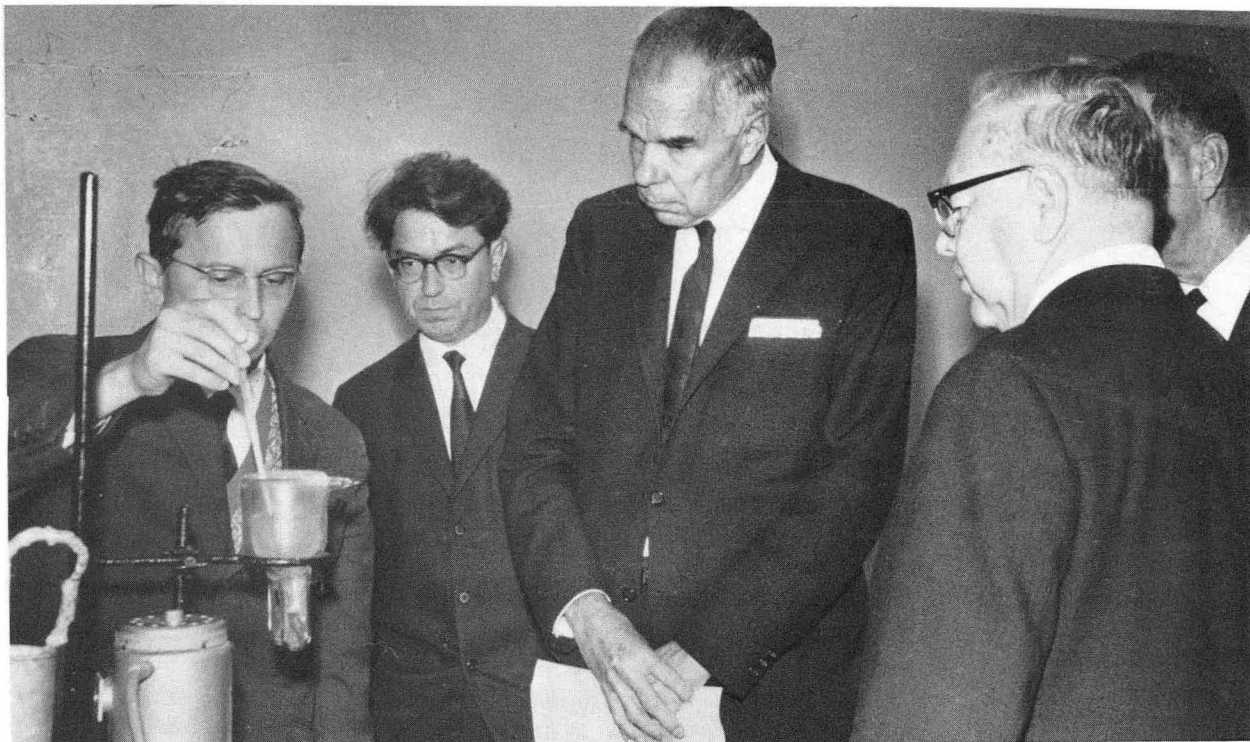
Institute of Physical Chemistry, Moscow; September 29, 1969.
L to R: N. A. Titkov, Seaborg, V. I. Spitsyn.

In the second room we saw a demonstration experiment to show the oxidation of Np(VI) to Np(VII) showing the color change that takes place. This group was under Professor (Mrs.) Anna D. Gel'man and Professor Nikolai N. Krot. The woman performing the experiment was obviously very nervous and the man that tried to help was about the same. Professor V. P. Saitseva was introduced as one of the co-workers in the group. She was only 4' 10" and I purposely sat on a stool to have my picture taken with her. This resulted in much laughter by all the other people in the room and my action seemed to have made an extra special hit. (See picture next page.) I was especially interested to meet Gel'man and Krot, who were the first to oxidize Np(VI) to Np(VII) and Pu(VI) to Pu(VII) and Saitseva who was the first to oxidize Am(VI) to Am(VII). A number of pictures were taken by the Institute photographer in this laboratory.

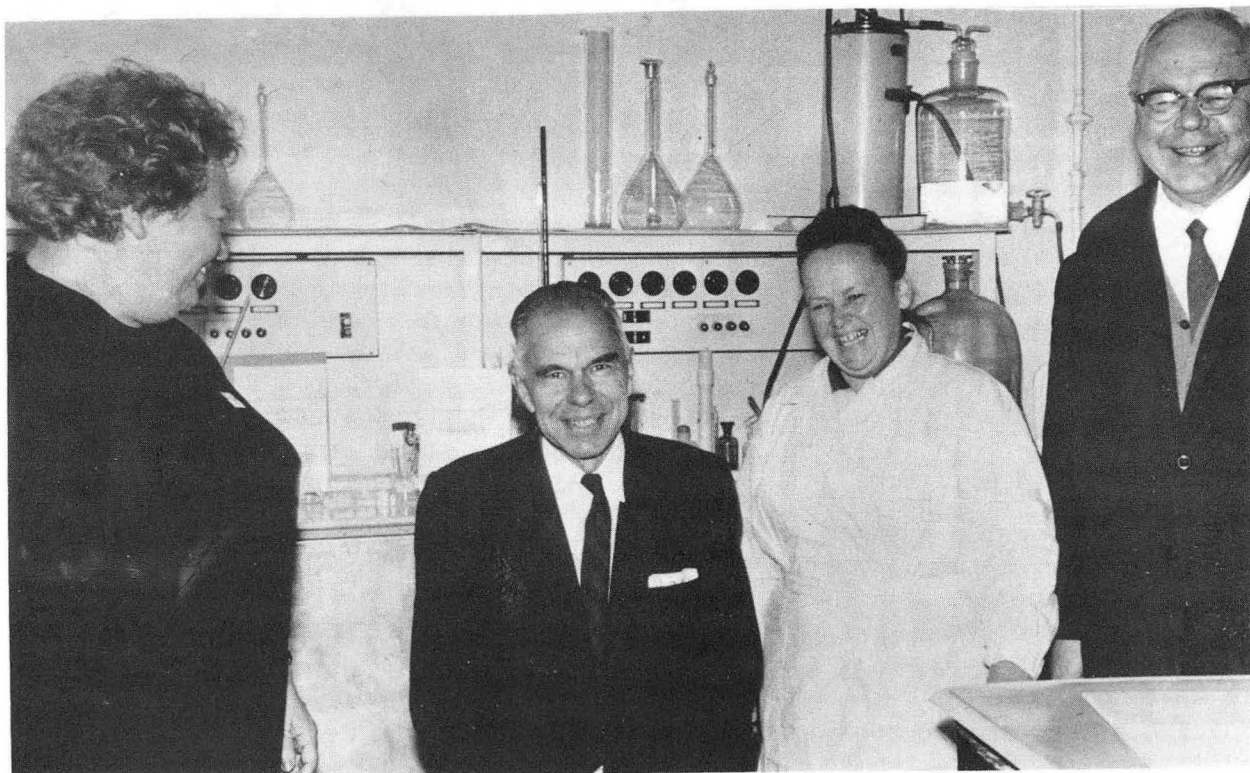
Looking out the window we could observe a new facility under construction, an adjacent building, where a Cockcroft-Walton Accelerator was being installed.

Spitsyn described the organization of his laboratory as we were touring the building. There are ten scientific groups.

The next room visited was that of Dr. Valentina D. Balukova, head of laboratory work on underground waste solution injections. Dr. Alukova was not present as she was away due to a death in the family that occurred yesterday. Spitsyn noted that at the time of his last visit to the United States we were



Institute of Physical Chemistry, Moscow; September 29, 1969.
L to R: B. G. Ershov, A. K. Pikayev, Seaborg, V. I. Spitsyn.



Institute of Physical Chemistry, Moscow; September 29, 1969.
L to R: A. D. Gel'man, Seaborg, V. P. Saitseva, V. I. Spitsyn.



Institute of Physical Chemistry, Moscow; September 29, 1969.
L to R: A. D. Gel'man, Seaborg, V. I. Spitsyn, N. N. Krot.

evaluating deep injection of radioactive waste into the earth. In this group movement of waste through different soils was being measured. It was reported that in the Soviet Union many hundreds of thousands of cubic meters of waste had been injected to depths of 1,700 meters. The soil formation at this depth is mainly sand. The results show you need about 20-30 meters of sand covered at the top and bottom with clay. Rubin inquired about the level of waste disposed of in this manner and the reply was middle level or 10-20 curies/liter.

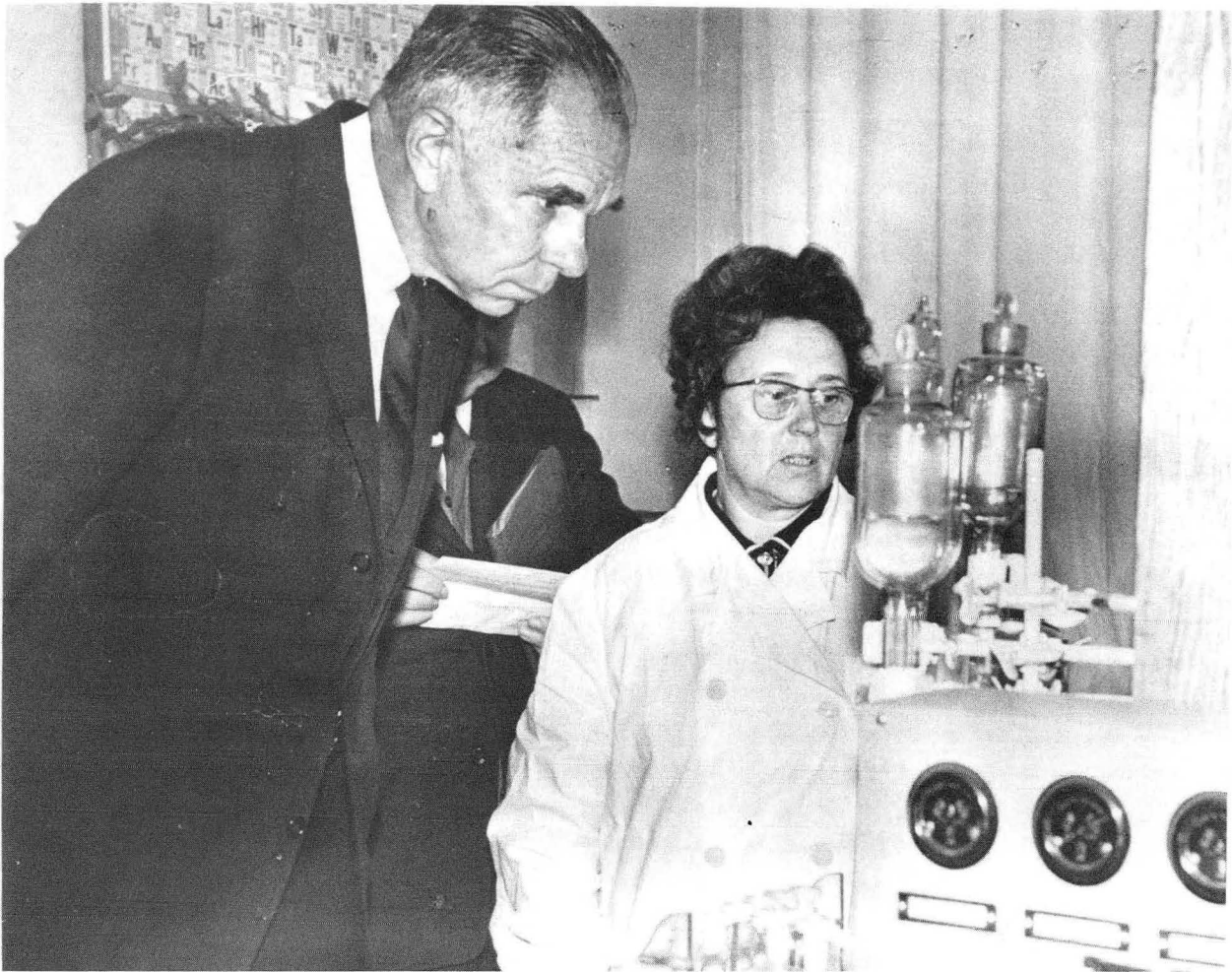
In an adjacent room one of the methods of solidifying waste was being investigated. An apparatus was described in which a cake solution of about 90% water that contains the waste is dehydrated by a freezing process, leaving a hard and dense solid that can be safely stored deep underground.

The next group visited was investigating the chemistry of technetium. Mrs. Anna F. Kuzina was in charge and Spitsyn noted she had been working in this field for 15 years. (See picture next page.) They reported having three grams of Tc_2S_7 . I inquired whether they were working on inhibition of corrosion and the response was yes.

The next group, headed by Professor V. V. Gromov, was studying irradiation effects on solids, particularly on inorganic crystals.

Our next stop was at the lab of Dr. L. E. Mikhailenko, chief of the group which is investigating properties of radioactive catalysts. Spitsyn noted Mikhailenko had been working in this field for 12-13 years.

After the tour of the laboratory, we went to a room where refreshments were served. I wrote a statement in the large guestbook. I gave an autographed copy of the book Natural Wonders to Spitsyn and copies of the record "Seaborg



Institute of Physical Chemistry, Moscow; September 29, 1969.
L to R: Seaborg and A. F. Kuzina.

on Science" to Gel'man and N. E. Brezhneva. I made a short talk to a group of key scientists, mentioning my pleasure at my visit and especially at meeting Gel'man and Krot; this was taped. A number of pictures were taken by the Institute photographers and Rubin took some pictures and some movies with my Soviet camera during our visit.

We then returned to the Hotel Sovietskaya. On the way we drove by the Kremlin, S. Basil's Cathedral, Red Square, etc. At the hotel I bought a watch for myself, one for Helen, and one for Eric, with my remaining 100 rubles.

I had sandwiches and tea in the hotel dining room with the Rubins and Titkov. We joined Kratzer and Vinciguerra in the hotel lobby and then rode to the airport in two cars. There we were joined by Petrosyants, Spitsyn, Zhavoronkov, Serov, Smolin, and Harben. We all sat around a table and talked, exchanged toasts, etc., from about 8 p.m. until about 11 p.m. (The plane left about 11:30 p.m., about 2 hours late due to late arrival.)

In the course of the conversation, Petrosyants wanted to explore further the discrepancies between Flerov's and Ghiorso's experiments on element 104. I described the isotopes of element 104 discovered by Ghiorso and how these differed from the spontaneous fission claimed by Flerov to be due to element 104. I said that I doubted that Flerov's work was right and said that I



Reception at Institute of Physical Chemistry, Moscow; September 29, 1969.
 L to R: N. E. Brezhneva, Seaborg, A. D. Gel'man, V. I. Spitsyn, M. P. Mefodyeva, N. N. Krot.

thought there was more of a chance that Flerov had discovered element 105 than element 104. Petrosyants brought up Flerov's claim that he had proved Berkeley wrong in the discovery of element 102, and I explained the minor role of assigning the mass number correctly in the discovery of the new element, i.e., it is the atomic number that counts and the correct assignment of mass number is inconsequential. Spitsyn was also involved in this discussion; he hadn't realized that Ghiorso had discovered a number of isotopes of element 104 but thought that all he had done was fail to observe Flerov's activity. Both Petrosyants and Spitsyn said they thought it was important that Ghiorso use the same reaction as Flerov, i.e., ^{242}Pu plus ^{22}Ne , and I tried to explain why this didn't make too much sense because Ghiorso's reactions-- ^{248}Cm plus $^{16,18}\text{O}$ ions and ^{249}Cf plus $^{12,13}\text{C}$ ions--were so much better. I emphasized that Ghiorso's yields were much larger than Flerov's.

Petrosyants repeatedly suggested that Ghiorso should come to Dubna to collaborate with Flerov. I explained why this was not practical, describing the small size of Ghiorso's group and its dependence on him to keep functioning. I suggested that perhaps at some time in the future this might be possible, when Ghiorso's accelerator might be down for repairs or rebuilding. I suggested that it might be better to have one of Flerov's people come to Ghiorso's laboratory, perhaps Y. T. Oganessian.

Zhavoronkov gave me a beautiful, large picture book of Russian sculpture. I gave an autographed copy of the book Natural Wonders to Harben to pass on to Goldanskii.

The Rubins, Kratzer, Vinciguerra, and I boarded Malev, Hungarian Flight No. 395 and flew to Budapest, arriving about 12:30 a.m. (Repülöler Airport).

We were met by Herbert Wilgis, Jr. (second Secretary of the Embassy). The Rubins and I rode in a rented Embassy car and Kratzer and Vinciguerra followed in Wilgis's car to the Grand Hotel, which is on Margrit Island in the Danube River. I checked into room 125.

[Following is an account of today's major activities in the Washington AEC office.

The Senate Foreign Relations Committee, under the chairmanship of Senator Fulbright, held hearings this morning on a resolution introduced by Senator Gravel of Alaska calling for a study of the international implications of nuclear weapons testing. Besides Senators Fulbright and Aiken, the only other members present for a part of the hearings were Senators Case and Symington. The list of witnesses called was heavily oriented toward those opposed to weapons tests and particularly to the forthcoming MILROW event at Amchitka. Commissioner Clarence Larson headed the AEC staff present at the hearings.

Considerable attention was paid by Senator Fulbright to the report on seismic effects of underground nuclear testing which was prepared by Dr. Kenneth Pitzer and his panel at the request of the AEC for its use and for the use of the Office of Science and Technology. Senator Fulbright explored the reasons why the report had not been released earlier. Dr. Pitzer, who was one of the witnesses heard, read into the record a letter to him from Dr. DuBridge which stated that the report was being withheld for the time being but that the members of the panel were free to state their personal opinions publicly. Senator Gravel had stated previously that the report was classified SECRET and this point was suitably rebutted by several other witnesses, including Dr. Pitzer.

The Hawaiian congressional delegation was present in force and made statements expressing concern over the possibility of a tsunami reaching Hawaii from Amchitka.

Senator Aiken, who is a member of the Joint Committee on Atomic Energy and the Senate Foreign Relations Committee, was active in support of the AEC and the underground testing program. He took the opportunity of the hearings to announce that the Chinese had just detonated a 3-megaton thermonuclear explosion in the atmosphere.

Senator Gravel, who was the most outspoken of the witnesses against nuclear weapons testing, appealed to Senator Fulbright to ask the President to postpone the MILROW test. Senator Fulbright did not give any indication of his reaction.

There was no indication that the Committee planned to take any specific action as a result of the hearings, although there is a possibility that it will meet in Executive Session tomorrow, September 30. The record of the hearings was kept open until 6 p.m., Wednesday, by Senator Fulbright to allow Senator Gravel to submit a long list of questions which he desires to be answered by the AEC.

The large number of representatives of the press who were present appeared to be negatively inclined toward the AEC position. Unfavorable press reaction probably can be expected, although it may not be as vigorous as would have been the case if Senator Fulbright had been less restrained.

Over the weekend the White House decided to permit release of the report on the detection of the underground nuclear test in China and the story appeared in the papers of this date.

Attached is a copy of a memorandum submitting a possible item to use in the daily report to the President.]

Tuesday, September 30, 1969 - Budapest, Bucharest

This seems like an appropriate point for some brief remarks about Hungary's nuclear interests and U.S.-Hungary relations in the field.

Despite its small size, Hungary produced a surprising number of top-flight scientists prior to World War II. As refugees in the United States, many of them, such men as Edward Teller, Eugene Wigner, Leo Szilard, and John Von Neumann, made invaluable contributions to our own wartime and post-war atomic energy programs. After the disruption of the war and post-war period, Hungary's current nuclear program was officially organized in the late fifties. Administration and planning are the responsibility of the National Atomic Energy Commission, formed in 1956. Most research is conducted at the Central Physics Research Institute, built, like others in Eastern Europe with Soviet assistance, which is located at Csilleberc near Budapest, and at the Nuclear Research Institute in Debrecen. Both centers operate under the direction of the Hungarian Academy of Sciences.

In addition to collaborating with the Soviet Union and receiving Soviet assistance in the nuclear area, Hungary cooperates with other nations as a member of the IAEA and the Joint Institute of Dubna. Bilateral cooperation between the U.S. and Hungary in peaceful nuclear applications has been extremely limited, however, consisting of an occasional visit by a U.S. or Hungarian scientist to facilities in the other country, or attendance at a conference or symposium. My stopover in Budapest appears to offer an opportunity to broach the idea of at least a modest expansion of our collaboration. It also affords a welcome chance to visit the Research Institute at Csilleberc.

I had breakfast in the Grand Hotel restaurant with the Rubins, Kratzer, Vinciguerra, Wilgis, and Alfred Puhán (U.S. Ambassador to Hungary).

We all drove to the Central Physics Research Institute, which is in the section called Buda (west of the River). Buda and Pest (east of the River) were united in 1879. We passed over the Danube River and had a beautiful view up and down the River. We saw the very striking Parliament Building, the Castle, Gellert Hill (with monument to World War II fighting), Foreign Office, etc.

We drove up into the Hills of Buda where the Institute is located. We saw many beautiful villas, now serving as multiple-family units. We had a good view of a residential area in the valley below. It was a beautiful day with a clear sky.

When we arrived at the Institute, we were met by Mr. Kovari, the protocol officer, who took us to meet Dr. Lenard Pal, Acting Director in the absence of Professor Lajos Janossy, who was in Bulgaria. We then went to Pal's office where I met Zoltan Boross (Deputy Director for Economic and Administrative Affairs), Ferenc Szabo (Chief of Main Department of Reactor Physics), Laszlo

September 29, 1969

Mr. Albert Toner
Staff Assistant
The White House

Dear Mr. Toner:

The following item is submitted for your possible use in the daily report to the President.

The Senate Foreign Relations Committee, under the chairmanship of Senator Fulbright, held hearings this morning on a resolution introduced by Senator Gravel of Alaska calling for a study of the international implications of nuclear weapons testing. Besides Senators Fulbright and Aiken, the only other members present for a part of the hearings were Senators Case and Symington. The list of witnesses called was heavily oriented toward those opposed to weapons tests and particularly to the forthcoming MILKOW event at Architzel. Commissioner Clarence Larson headed the AEC staff present at the hearings.

Considerable attention was paid by Senator Fulbright to the report on seismic effects of underground nuclear testing which was prepared by Dr. Kenneth Fitzer and his panel at the request of the AEC for its use and for the use of the Office of Science and Technology. Senator Fulbright explored the reasons why the report had not been released earlier. Dr. Fitzer, who was one of the witnesses heard, read into the record a letter to him from Dr. Burridge which stated that the report was being withheld for the time being but that the members of the panel were free to state their personal opinions publicly. Senator Gravel had stated previously that the report was classified "Secret" and this point was suitably rebutted by several other witnesses, including Dr. Fitzer.

The Hawaiian congressional delegation was present in force and made statements expressing concern over the possibility of a tsunami reaching Hawaii from Aschita.

Senator Aiken, who is a member of the Joint Committee on Atomic Energy and the Senate Foreign Relations Committee was active in support of the AEC and the underground testing program. He took the opportunity of the hearings to announce that the Chinese had just detonated a 3 megaton thermonuclear explosion in the atmosphere.

Senator Gravel, who was the most outspoken of the witnesses against nuclear weapons testing, appealed to Senator Fulbright to ask the President to postpone the HLI-50K test. Senator Fulbright did not give any indication of his reaction.

There was no indication that the Committee planned to take any specific action as a result of the hearings, although there is a possibility that it will meet in executive session tomorrow, September 30. The record of the hearings was kept open until 6:00 p.m. Wednesday by Senator Fulbright to allow Senator Gravel to submit a long list of questions which he desires to be answered by the AEC.

The large number of representatives of the press who were present appeared to be negatively inclined toward the AEC position. Unfavorable press reaction probably can be expected, although it may not be as vigorous as would have been the case if Senator Fulbright had been less restrained.

Sincerely,

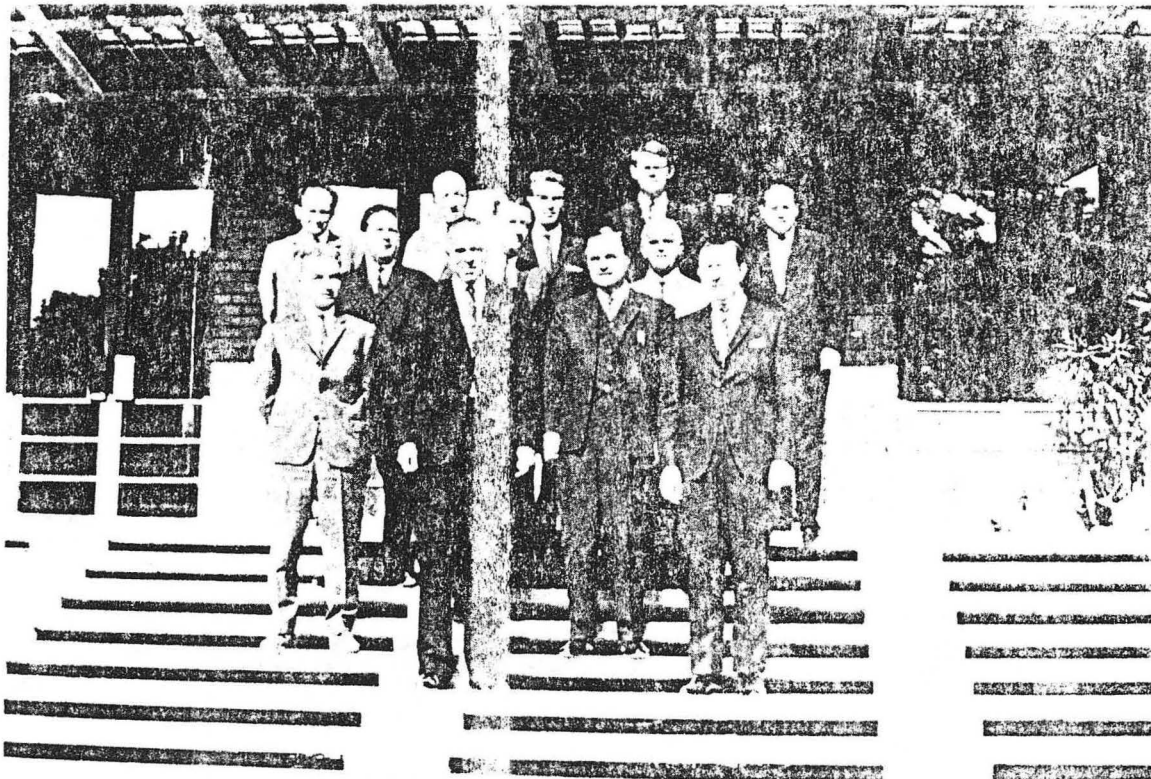
Justin L. Bicon
Staff Assistant
to the Chairman

cc: Thomas Whithead

Chairman Seaborg
J. Rubin
✓ S. Gearin

JLB:eig

Nagy (Chief of Main Department of Nuclear Physics), Dezső Kiss (Chief of Main Department of Nuclear Physics Laboratory), and Tibor Kovacs (Chief of International Relations). A brief review of the Institute's program was given by Pal, who included an expression of interest in international cooperation. I expressed pleasure at having the opportunity for this short visit and said I hoped for a longer stay at some future date. I observed that increased cooperation in the nuclear and all scientific fields was mutually desirable



Visit to Central Physics Research Institute, Budapest; September 30, 1969. L to R: (Front row) unidentified, Seaborg, Acting Director Lenard Pal, Ambassador Puhan. (Second row) unidentified, M. Kratzer, J. Vinciguerra. (Back row) all unidentified.

and beneficial. My visits on this trip to the U.S.S.R., Czechoslovakia and Romania as well as Hungary were noted as support for this objective. It was suggested we exchange documents and visits of scientists as a step toward increased cooperation. Our common interest and participation in IAEA activities was cited as an important activity in which both Hungary and the U.S. were working. Dr. Pal agreed that exchange of preprints, documents and scientists would be very desirable. A specific reference was made to a planned visit in October by Bob Curtis of Oak Ridge.

I gave a copy of American Historylands to Pal, and left with him a copy of Natural Wonders and a uranium desk set to give to Janossy.

After the discussions we made a short visit to the reactor building. Our guide was Dr. Pallojy, Chief Engineer of the reactor. They have a swimming pool reactor operating at 3.3 MW with a flux of 4.5×10^{13} neutrons/cm²/second, 35 percent enriched fuel and forced circulation coolant. This uses the VVRM type Soviet fuel of tubular uranium-aluminum

alloy. The reactor started operating in 1959 and is reported to have the highest flux to power ratio of any reactor in the world. It has ten experimental channels plus 18 vertical channels for isotope production. The main experimental program consists of solid state physics and nuclear physics with some small work connected with biology and dosimetry. The experimental physics program includes neutron scattering and neutron diffraction work.

Our next stop was at a computer area. The equipment was labeled HFKI on the panel and was entirely constructed at this Institute.

Next we visited at a building which housed a 10 KW training reactor. Fuel similar to the research reactor is used but the enrichment is only 10%. Some work on organic coolants was under investigation but the fact that we had dropped this system was recognized. The main objective is to provide general experience in the reactor area. The specific work uses diphenyl as the organic coolant with benzene as the secondary coolant that goes directly to the turbine.

I made the particular point to Dr. Pal that all countries should not drop an area of technology just because the U.S.S.R. and the U.S. did not continue the work. Our budget limitations did not permit investigating every possible field, and work we were not doing would be a good basis for exchanges for our areas that might be of interest to Hungary.

Our last stop was at a Van de Graaff building. Work here started in 1951; the facility is now staffed with about 100 scientists. The machine was presently operating at 3 MeV and the plan is to modify it for operation at 5 MeV and 20 microamperes.

Dr. Pal stated there were 1,500 in the entire Institute of which about 300 were scientists, with a technician ratio of about 4 to 1. This completed the tour of the laboratory.

In my brief discussions with Dr. Pal and his colleagues, the Hungarians clearly showed their hope for increased scientific cooperation with the United States. Virtually all of the top scientists at the laboratory spoke English well and were well-informed on the general status of nuclear programs in the U.S. They welcomed my indication that perhaps some modest informal exchange could take place.

I gave three copies of Man-Made Transuranium Elements and two copies of Elements of the Universe (all autographed) and three copies of the record "Seaborg on Science," to Pal for distribution to his co-workers.

Kratzer, Ambassador Puhán, and I rode to the airport (which is on the east side of the Danube River in Pest) in Puhán's car. The others and Kovari (to help us get on the plane) followed in other cars.

As we crossed the Danube again, we saw the new Intercontinental Hotel. We also saw the University of Budapest.

Puhán told me that the Hungarians had only allowed 21 Americans to work in his embassy; recently he had succeeded in getting this increased to 31. He told me that Jozsef Cardinal Mindszenty is still living in the Embassy with him. He is now 77 years old.

We said goodbye to Puhán, Wilgis, and Kovari and then the Rubins, Kratzer, Vinciguerra, and I flew to Bucharest, leaving Budapest about 11:15 a.m. and arriving in Bucharest (Baseasa Airport) about 1:30 p.m. on Czechoslovakian Airlines Flight No. 866.

During our brief visit in Budapest, I received the impression from my discussions both at the laboratory and with Ambassador Puhán that a definite improvement in U.S. relations with Hungary might be in our interest. Although the present Hungarian regime was placed in power by the Soviet intervention of 1956, it is my understanding that conditions in Hungary never returned to those before the uprising, and that conditions there, including the degree of personal and economic freedom permitted, have improved steadily in recent years.

An improvement in relations with the U.S. may also be feasible and acceptable on the Hungarian side. Puhán told me that I am the highest level U.S. official to visit Hungary in 13 years (i.e., since the Soviet invasion of 1956), and that the visit in all probability required and received the personal approval of President János Kádár.

This seems to be an appropriate place for brief remarks about Romania's nuclear interests and U.S.-Romanian interests in this field.

My Romanian visit, one of the principal purposes of this trip, is occasioned in part by the opening of the U.S. AEC's Atoms-in-Action exhibit in Bucharest. In addition, I am anxious to reciprocate a visit to the United States made almost a year ago by Professor Horia Hulubei, Chairman of the Romanian State Committee for Nuclear Energy (CNE). I am eager to see something of Romanian nuclear research facilities; and a recent expansion of U.S.-Romanian cooperative nuclear activities makes this an especially appropriate time for discussions on matters of mutual interest.

Although Romania lacks a strong scientific and technological tradition, since World War II it has made rapid strides in this direction. In the late fifties, like the other Eastern European countries, the nation established a small nuclear energy program devoted primarily to basic research and the use of radioisotopes. From the start, Romania engaged in cooperation with the Soviet Union under a bilateral agreement; and its collaboration with other nations in the peaceful nuclear field was soon broadened to include participation in the IAEA and the Joint Institute for Nuclear Research in Dubna. Cooperation with the United States has been long limited to ad hoc visits and conference attendance, but increasingly cordial relations between our countries finally has paved the way for more formal arrangements. During Professor Hulubei's November 1968 visit to the States, he and I signed a Memorandum on Cooperation in the Peaceful Uses of Atomic Energy, the first such agreement between the U.S. and any Eastern European country except the Soviet Union itself. This provides for the exchange of senior scientists and scientific delegations in specific fields and the exchange of information, as well as the holding of the Atoms-in-Action exhibit.

Beginning about 1964, Romania displayed an active interest in the potential contribution of nuclear power in the generation of electricity. By now the decision has been made to launch a program of nuclear power plants based on natural uranium fueled, heavy water moderated reactors; and negotiations are in progress with Canada on supply of the first unit. In connection with these plans, the Romanian Government wishes to purchase a heavy water plant and heavy water production technology from the United States. The U.S. AEC could not authorize export of an actual plant then, but in the spring of 1968, following extensive Congressional consultation, President Lyndon Johnson approved our authorizing interested U.S. firms to supply the necessary technology and related engineering services. An important aspect of the plan is to be the application of IAEA safeguards to the project. This would represent the first application of international inspection in this Eastern European country.

We were met by Professor Hulubei, Catinca Ralea (his personal interpreter), U.S. Ambassador Leonard C. Meeker, Harry G. Barnes, Jr. (Deputy Chief of Mission), Jay Katzen (our Embassy control officer), Charlie Pelzer (U.S. AEC Deputy Director, Division of Technical Information), and John Bradburne of the U.S. AEC exhibit staff, Mr. and Mrs. Mel Abrahams, and the following Romanians: Professor Ioan Ursu, First Vice Chairman of the CNE and Director of the Institute of Atomic Physics; Serban Titeica; Popa Stoica, CNE Deputy Chairmen; Ion Galateanu, CNE Adviser; Dumitru Stoian, Division of Nuclear Power Plants; Radu Chisleag, CNE Expert; Ionel Purica, Member CNE; Marius Petrascu, Institute for Atomic Physics; and Lillian Gildall, a guide for Em Rubin and Ruth Abrahams.

I had an interview for the Voice of America with David Lent on the significance of the Atoms-in-Action exhibit. I briefly summarized my trip and urged increased exchange of scientists among countries.

I rode with Ambassador Meeker and Barnes in the Ambassador's car to the Embassy residence. There I met Mrs. (Beverly) Meeker.

We (Meeker, Barnes, Katzen, Rubin, Kratzer, Abrahams, Vinciguerra) all gathered for some conversation and briefing on the patio. I then rode with Meeker to the Building of the Council of Ministers (which President Nixon visited during his August visit to Bucharest). Here we joined Rubin, Kratzer, Vinciguerra, Abrahams, Pelzer, Bradburne, Barnes, and Hulubei and a number of the CNE people, including Ursu, Stoica, Petrascu, Galateanu, Purica, Dr. Emilian Rodean (General Secretary), and Chisleag. Hulubei explained this would be a short meeting principally to sign the agreement for the loan to Romania of the cobalt-60 source in the exhibit. He expressed pleasure over progress under the U.S.-Romania agreement for cooperation. Hulubei mentioned the planned extended assignment of Sorin Ciulli to work with Dr. Geoffrey Chew at the Lawrence Radiation Laboratory of the University of California in Berkeley and inquired whether Ciulli could be paid by the U.S. as a visiting scientist. I agreed to discuss this with Chew but noted the usual practice is for the U.S. to pay the salary of our scientists on extended assignments abroad and for other countries to follow the same practice.

I expressed pleasure at the opportunity to visit Romania and their facilities as Hulubei had done in the U.S. last year. I mentioned that work toward the Romanian request for a license to construct a heavy water plant was proceeding. Hulubei stated Romania was prepared to provide the necessary assurances for IAEA safeguards for this heavy water plant. He asked what the safeguards requirement for a heavy water plant would be and I indicated this would be worked out in trilateral discussions between IAEA, Romania, and the U.S.

Hulubei described a program for Romania that included 18-2400 MW of nuclear power by 1980.

Hulubei thanked me for the films and books that had been sent following his visit to the U.S. He stated the films would be shown on Romanian TV.

I inquired about Romania's agreement with Canada and was informed there are plans to purchase a 600 MWe Canadian reactor. As much as possible of the work for this plant will be done in Romania.

We then went to Hulubei's office, where Hulubei and I signed an agreement providing for the use by the CNE of the 10,000 curie cobalt-60 source,

utilized in our Atoms-in-Action exhibit, after the exhibit closes (a one-year contract with the option for the U.S. to leave the source in Romania after that time).

Hulubei, Barnes, Meeker, and I went to the Council of State Palace (where President Nixon had attended a state dinner during his August visit). We joined Ursu there and were greeted by Atanasiu (Chief of Protocol) and Christian Constantinescu (Head of the American Division of the Foreign Ministry). We went on to President Nicolae Ceausescu's office, where Meeker and I greeted him, with a number of photographers taking pictures. When we were all seated, President Ceausescu started our conversation. Present were Meeker, Barnes, Ursu, Hulubei, Constantinescu, who acted as interpreter, and a shorthand reporter. To my surprise the interview lasted one hour and a half rather than the 20 minutes I expected. Among the points the President made were: Romania has no intention of producing nuclear weapons; but, if the nuclear powers persist in doing so, she may have to. Romania will ratify the NPT, but the NPT is only a device by the nuclear powers to maintain a monopoly; the IAEA has only limited usefulness; what is needed is a mechanism to reduce the weapons stockpile of the nuclear powers; scientists around the world are powerful and should take the lead in effecting disarmament; my idea of a World Club of Political Leaders is a good thought for the future, but at present bilateral meetings should be pursued; he doesn't believe man is inherently aggressive; political leader's power is limited by the will of the people; the Nobel Symposium in Stockholm was interesting and useful; he expressed appreciation for the visit of President Nixon, and he expressed interest and satisfaction in the increasing cooperation between Romania and the U.S. in the peaceful uses of nuclear energy as exemplified by my visit.



Meeting with Romanian President, Bucharest; September 30, 1969.
L to R: Seaborg, C. Constantinescu, President Ceausescu.

Following the meeting with the President, I rode with Ambassador Meeker and Barnes to Muzeul Satului--the Village Museum--an open-air ethnographic museum. This is very much like Skansen in Stockholm and seems to be patterned after it. We were shown around by the Director, Gh. Focsa. President Nixon also visited this during his August visit.

Meeker, Barnes, and I then rode to the exposition--National Economy Achievements Exhibition, Romania 69. Here we joined our group, including Rubin, Kratzer, Vinciguerra, Pelzer, and Abrahams. We first visited the exhibit of the Institute of Atomic Physics. Here Ursu and I were interviewed for Bucharest TV by Ofelia Sfetcu, on progress in implementing the U.S.-Romanian Agreement for Cooperation in the Peaceful Uses of Nuclear Energy, which Hulubei and I signed in the U.S. last November. This taped interview was to be shown later on TV. We made a tour of the Institute exhibit under the guidance of Ursu. The exhibit included shipping casks for isotopes, a demonstration of using isotopes as density gauges, electronic components and a carbon dioxide laser of 100 watts capacity. At each exhibit it was emphasized that the equipment was designed and manufactured at the Institute of Atomic Physics in Romania. I signed the guest book at the end of the tour.



Visit to Institute for Atomic Physics Exhibit, National Economy Achievement Exhibition, Bucharest; September 30, 1969.
L to R: Prof. I. Ursu, Seaborg, Ofelia Sfetcu.

Next we toured the main exhibit building under the guidance of an attractive guide, Alina P. Rudescu. This was an excellent exhibit of Romanian heavy and light machinery, which opened August 9 and will run until November. It

included a model of a large steel mill, many tape controlled large machine tools and a model of a new 1200 MWe hydro project on the Danube that is a joint project with Yugoslavia. A full size water wheel for one of the 175 MW turbines for the plant was on display.

I then rode with Meeker and Barnes (whom we dropped off at his residence) to the Embassy residence to prepare for the evening dinner given by Hulubei. Meeker and I saw my arrival TV pictures at 7:40 p.m. in the study at the Embassy residence. Rodean came by the Embassy residence to call for the Meekers and me. I rode with the Meekers to Snagov (about 25 miles out of Bucharest) to the Muntenia Restaurant on Lake Snagov. We assembled as a caravan of 16 cars, led by a police car, for the ride to Snagov.

The dinner consisted of a party of about 50 people. I sat between Hulubei and Stefan Birlea (Deputy Minister of Science of the National Council of Research). Birlea had to leave early to meet an airplane. I also sat near Chisleag, the bright young physicist with the CNE who acted as an interpreter for the talks given by Hulubei and me. Among the Romanian guests were many I had met earlier; Americans present included several U.S. Embassy officers and, of course, my U.S. AEC group.

Early in the meal Hulubei gave a little talk of welcome and a toast of friendship and later I responded with a talk introducing the Americans present, referring to Hulubei's and his colleagues' visit to the U.S. last year, my various activities during the day, including my talk with President Ceausescu, and my hope for increased Romanian and U.S. cooperation in the peaceful uses of nuclear energy. I ended by presenting Hulubei with his certificate of fellowship in the American Physical Society (to which he was just elected).

I rode back with the Meekers to the Embassy residence where I spent the night. The Embassy residence is across the street from the Chinese Embassy, where a huge party was going on in honor of October 1, the 20th anniversary of the founding of the Chinese People's Republic. (Attached is a memo from Meeker preparatory to my visit.)

9/30/69

Enclosure
Bucharest A-265LIMIT DISTRIBUTIONK = Release
BT

MEMORANDUM OF CONVERSATION

September 30, 1969

SUBJECT: AEC Chairman Seaborg's Call on President Ceausescu

PARTICIPANTS: Dr. Glenn Seaborg, Chairman, Atomic Energy Commission
Ambassador Leonard C. Mosker
Mr. Harry G. Barnes, Jr., DCMPresident Nicolae Ceausescu
Academician Horia Hulubei, Chairman, Romanian Committee for
Nuclear Energy
Prof. Ion Ursu, First Vice Chairman, Committee for Nuclear Energy
Mr. Virgil Constantinescu, Director, IV Directorate, NRE

The conversation, which lasted almost an hour and a half, was very wide-ranging. Aside from introductory remarks regarding US-Romanian cooperation in the nuclear energy field, a brief description by Chairman Seaborg of the US Atoms-in-Action Center and a repetition of Ceausescu's familiar pitch that it is up to the US to end the war in Vietnam, the talk was general and often philosophical. President Ceausescu and Chairman Seaborg both participated actively and about equally in the conversation but for the sake of brevity President Ceausescu's remarks are given in greater detail below.

Main points covered were:

1. The Responsibility of Scientists and Politicians. Ceausescu argued that scientists, who had given mankind weapons of destruction, had a particular responsibility to try to stop their use. Chairman Seaborg indicated that in a sense it was too late because the deed was done and rather it was the politicians' job to devise ways of control. In response Ceausescu pointed out that no politician can go against public opinion and that scientists, who now number millions, constitute a significant voice. If people are against the use of weapons of mass destruction, if they are for peace, leaders will have to listen. Political leaders get their power from the people and have to be responsive to them. To be sure, there are times when leaders can make mistakes in the use of power at their disposal. Ceausescu cited as a case in point the recent article of an American journalist who maintained that President Johnson's decision to bomb North Vietnam was based on erroneous information regarding the Gulf of Tonkin incident. Chairman Seaborg noted that scientists were, proportionate to their numbers, perhaps the most active group anywhere advocating disarmament measures.

2. IAEA and NPT. The Chairman said he saw some hope of the IAEA developing into an agency with considerable potential to control the spread of arms. Ceausescu interrupted to say that he frankly felt that agency had at best very limited possibilities as its control was limited to countries that did not have nuclear weapons. Only if it were able to control those who did have these weapons would it have some importance.

The chairman maintained that the IAEA's start was necessarily slow, but that, particularly if the NPT was adopted by many countries, it could have an even greater role. Ceausescu spoke deprecatingly of the NPT in the sense that it provided for no control over the powers who possessed nuclear weapons. They went on accumulating such weapons and even their aim seemed to be to increase their monopoly. Chairman Seaborg maintained that the intent of the NPT is broader. Ceausescu insisted that only if the problem of reducing the stocks of such weapons was tackled would a significant step be taken. Otherwise, it was like a rich man telling a poor man to give up a claim to something he doesn't even have, while the rich man goes on collecting more and more himself. Romania, like all the have-not countries, didn't see why the nuclear powers couldn't start the process by giving up something themselves. Chairman Seaborg maintained that the NPT was in the interests of the have-not countries because they only stand to lose if more nations developed a nuclear capacity.

Ceausescu said with a light touch (but with some serious intent) several times that Romania might have to develop such a nuclear capability if there were not some progress in arms reduction by the nuclear powers, but added Romania had not considered taking that path. At one point he did say Romania "will" ratify the NPT.

3. International Understanding. The Chairman told President Ceausescu of the idea of a friend of his who felt lack of communication among the world's leaders was the major barrier to solution of international problems. The friend advocated collecting the leaders annually on a remote island so that they might get to know, understand and hopefully even like each other. By way of example Chairman Seaborg cited the recent Nobel symposium in Stockholm on the subject of Science and Society where some 45 participants of very diverse backgrounds met to consider the place of values. The meeting was a useful exchange of views and represented perhaps an analogy for the sort of approach to the solution of international problems sought by the Chairman and his friend. Ceausescu reacted somewhat skeptically to the whole idea at first, suggesting there were already forums such as the UN or regional groupings that served this purpose. He also stressed the importance at this stage, in any event, of bilateral talks between heads of state, such as he had had with President Nixon and noted Romania's active policy of seeking contacts at the highest level. At one point, however, he returned to Dr. Seaborg's idea and proposed that if the leaders ever did meet on a remote island the first topic on the agenda should be respect of one human being for another and of one state for another. This principle he contended was fundamental to any real understanding and fundamental to any lasting peace.

4. The Nature of Man. Dr. Seaborg asked the President whether he was optimistic about the future, and in particular whether he shared the feeling of some biologists who hold that man is innately aggressive and therefore efforts to control this side of his nature are doomed to failure. Ceausescu replied that he was generally an optimist. Further he believed man's fighting with men over the centuries was due to problems caused by injustices in society rather than by any aggressive nature as such. To be sure, man, every man, had individual characteristics, including touches of vanity and a drive for power. These elements could cause problems but the hope lay in education and this again was an area where scientists had an important role to play. Dr. Seaborg noted that the two of them were in agreement, then, that man was not inherently aggressive and that there was room for optimism about the future.

MEERER

9/30/69

27 SEP 69 07 07z

R = Release
135

UU DKASORDXPAIC APA687
PP BUDKDA
DE BUDKAP 2526 2691325
ZNY OOOOO ZZH
O P 261320Z SEP 69
FM AMEMBASSY BUCHAREST
TO RUEHMO/AMEMBASSY MOSCOW IMMEDIATE 903
INFO BUDKDA/AMEMBASSY BUDAPEST PRIORITY 834
BT

[REDACTED]

[REDACTED] L

[REDACTED]

[REDACTED] SE BUCHAREST 2526

PASS TO KRATZER, AEC.

SEABORG TALKS WITH HULUREI AND BANKING GOP OFFICIALS TAKE PLACE SHORTLY AFTER ARRIVAL BUCHAREST THERESEFF PROVIDING SUMMARY TAPF- URSU DISCUSSIONS ATOMIC ENERGY MATTERS AT CNE ON SEPT 25.

TAPF OPENED BY NOTING THAT AS MEMBER DURBRIDGE PARTY HIS INTERESTS WERE GENERALIZED AND THAT SEABORG WOULD BE ABLE TO DISCUSS MORE DEFINITELY. URSU WILL TAKE UP WITH SEABORG POSSIBILITY OBTAINING LICENCE ON NUCLEAR POWER PLANTS AND HEAVY WATER PLANTS. WHEN QUESTIONED URSU RESPONDED THAT THERE ARE NO OUTSTANDING PROBLEMS WITH AEC AUTHORIZATIONS ONLY WITH FINANCIAL ASPECTS. URSU REITERATED ROMANIAN WILLINGNESS TO ACCEPT IAEA SAFEGUARDS WHEN ESTABLISHED. EMBASSY ADVISES THAT LUMMUS REP IN BUCHAREST THIS PAST WEEK PUT CONTRACT STILL NOT REACHED.

URSU EXPRESSED STRONG DESIRE FOR PHYSICISTS, SPECIALISTS AND ENGINEERS TO OBTAIN TRAINING IN US FOR THEIR NUCLEAR POWER PROGRAM AND THE NEED FOR FINANCIAL SUPPORT MENTIONING TMNT ONLY A FEW HAD STIPENDS SUCH AS FROM NAS. DURING DURBRIDGE VISIT TO ATOMIC PHYSICS INSTITUTE URSU HAD ESTIMATED APPROXIMATELY 40-50 PEOPLE IN WIDE VARIETY FIELDS IS THE INITIAL ROMANIAN GOAL.

TAPF NOTED THE PROBLEMS OF AEC FELLOWSHIP SUPPORT, LACK OF US HEAVY WATER POWER PROGRAM, ETC. DURBRIDGE MAY OBTAIN ADDITIONAL FUNDS FOR YOUNGER (25 YEARS) RESEARCHERS AND TAPF ADVISED CNE TO CONVINCE HIS PEOPLE TO SECURE SLOTS FROM THIS PROGRAM. TAPF EXPLAINED MANUFACTURERS NOT OBTAINING SALES RELUCTANT TO TRAIN COMPETITORS PURCHASERS AND AEC HAS NEVER UNDERTAKEN SUCH RESPONSIBILITY. MENTIONED POSSIBILITY OF UTILITY PLANTS SUCH AS YANKEE TAKING ROMANIANS FOR TRAINING. ROMANIANS ALSO PLAN PURCHASE RESEARCH REACTOR, PROBABLY HEAVY WATER, AND TAPF NOTED GOOD POSSIBILITIES FOR TRAINING WITH MANUFACTURER.

URSU THEN BROUGHT UP EXPORT LICENCE PROBLEM IN PURCHASE OSCILLO

TOP SECRET

SCOPES, COMPUTERS AND KLYSTRONS. TAPE ADVISED ROMANIANS TO MAKE COMMITMENT AND HAVE MANUFACTURER APPLY FOR EXPORT LICENCE, MAKE END USE CLEAR, PROVIDE US WITH REQUIREMENTS SO THAT ALTERNATIVES MIGHT BE SUGGESTED, PLACE COMPETENT SCIENCE ATTACHE IN ROMANIAN EMBASSY IN WASHINGTON AND USE SCI REPRESENTATIVE WHO WILL BE IN ITALY.

ROMANIANS WANT POP 15 FOR TANDEM VANDE GRAFF BEING PURCHASES FROM HIGH VOLTAGE ENGINEERING AND MODEL 435 OSCILLOSCOPE. IMMEDIATELY FOLLOWING MEETING TAPE RECEIVED MESSAGE EXPORT POP 15 FEASIBLE IF END USE SATISFACTORY. ALSO EMBASSY LEARNED MODEL 435 OSCILLOSCOPE EXPORT TO ROMANIA CLEARED THROUGH COCOM.

URSU LASTLY NOTED MR. POPA, VICE-PRESIDENT CNF AND PARTICIPANT IN TAPE-URSU DISCUSSIONS, AND OTHERS WISHED LEARN OF REACTOR SAFETY AND SAFEGUARDS THROUGH DOCUMENTS AND VISITS TO DISCUSS SUBJECTS WITH AEC AND ENGINEERS. TAPE ASSURED AEC HAD COPIOUS SUPPLY DOCUMENTS, AEC REGULATORY GROUP INTERESTED THAT ALL REACTORS ARE SAFE BECAUSE AN ACCIDENT IN ANY COUNTRY WOULD HAVE SERIOUS EFFECT ON US PROGRAM.

ABRAHAMS AND BRADPURNE ACCOMPANIED TAPE TO CNF AND DURBRIDGE AND PARTY TO IEA. THEY WILL BE AVAILABLE TO SUPPLY ANY REQUIRED CLARIFICATION ON THESE POINTS.

MEEKER

BT

Wednesday, October 1, 1969 - Bucharest

I had breakfast in the Embassy residence with Leonard and Beverly Meeker.

I rode out to the Institute for Atomic Physics (IFA) in Ambassador Meeker's car. It was an interesting ride, affording an opportunity to see people on the way to work in their normal routine manner. (Bucharest, like Prague, Leningrad, and Budapest, still uses electric streetcars as an important mode of transportation.)

I met the other members of our group at the Institute. The Institute is in the village of Magurele (15 kilometers from Bucharest).



Institute for Atomic Physics, Magurele (Bucharest); October 1, 1969.
Seaborg, Kratzer, Abrahams with Hulubei and staff.

We met in the library with the Romanian Group. Present were Hulubei, Ursu, Titeica (who in addition to being CNE Deputy Chairman is Vice President of the Academy of the Socialist Republic of Romania and Deputy Director of IFA), Stoica, Rodean, and a large group of principal IFA staff: Florin Ciorascu (Deputy Director), Mihai Balanescu (Chief Engineer), Victor Mercea (Head of Division), Ionel Purica (Head of Division), Marius Petrascu (Head of Division), Nicolae Martalogu (Head of Laboratory and Scientific Secretary), Paul Draghicescu (Head of Laboratory and Scientific Secretary), Ioan Minzatu (Scientific Secretary), Ion Teodorescu (Head of Laboratory and Scientific Secretary), Sebastian Rapeanu (Head of Laboratory), Theodor Pacurar (Deputy Chief Engineer), Alexandru Mihul (Head of Laboratory), Elena Labusca (Head of

Laboratory), Ion Iftode (Head of Laboratory), Ioan Brandus (Senior Scientist), Mircea Cristu (Senior Scientist), and Decebal Poenaru (Head of Laboratory). Also present were CNE Scientific Advisers Galateanu and Chisleag.

Ursu reviewed the organization and general programs of the IFA. He gave us a pamphlet, specially prepared for us in English, giving summary information about the Institute. It was founded in 1956 and now has a staff of 2,000 people with 750 university graduates, including 80 with doctorates and nine fellows of the Academy of the Socialist Republic of Romania. There are nine research departments--Reactor Physics and Techniques, Nuclear Materials, Stable Isotopes, Plasma and Radiation, Nuclear Electronic Techniques and Applications, High Energy Physics and Theoretical Physics, Low and Medium Energy Nuclear Reactions. Major facilities at IFA include a 3.5 MW Research Reactor, a variable energy cyclotron with 3.5 to 14 MeV protons, several betatrons, 12 small size computers, a number of special type lasers. Near term plans were noted for a Van-de-Graaff ion-tandem accelerator for operation in 1971 and a CAE 90-40 computer in 1970.

Great emphasis was placed on the IFA's independent design and fabrication accomplishments, also on the recognition of IFA scientists as indicated by the publication of their papers in international journals and the demand for them as visiting lecturers at many laboratories.

The Romanians said that they want to buy a reactor and some computers from the U.S. and that they would like to publish some papers in U.S. journals but the page charge limits this possibility.

Rubin, Katzen, and I toured the Institute under the guidance of Titeica and Minzatu. The first stop was at a plasma physics building where we met Dr. Palas Ionescu and Dr. Laurcretus Blanaru. They were working with lasers for special cutting, welding, and other fabrication work. A helium-neon source was demonstrated and a 100 watt carbon dioxide laser described.

Our next stop was in a building with a number of betatrons where our guides were Dr. Constantin Iliescu, Dr. Ionescu, Dr. Gheorghe Baciu, and Dr. Panaitescu. The principal application of these machines was the use of their x-rays in nondestructive testing, particularly for large industrial castings and welded components. Three machines were described, one of 8 MeV called Baby, another of 25 MeV and a proposed machine of 18 MeV that would be portable to use at field locations. Exposed plates of a sword from 1800 BC were shown with evidence that a second handguard had been added using pin holes different from those originally used.

The next stop was at the Research Reactor, essentially the same as the one we saw in Budapest. It was operating at 3.5 MW. Petrascu described the physics work at the reactor which included measurement of resonances at high energies. Dr. Dorel Bally described experiments on the inelastic scattering of cold neutrons. A thermal column was identified at the far side of the reactor and a carbon dioxide cooled loop with a capacity of 1500 degrees Celsius was described. Purica noted about 1800 curies per year of isotopes are made in the reactor for use at the institute and distribution to hospitals and other labs.

The next stop was at the isotopes preparation laboratory. A Dr. Constantine Childtan was our guide. We were shown four hot cells, one for work on gamma-ray emitting isotopes, the second for general radiation chemistry using

a 300 curie cobalt-60 source, the third for source preparation and the fourth for calibration measurements.

The next stop was at a room with glove boxes where the source preparation work is conducted. (Technetium-99, iridium-192, phosphorus-32, zinc-65, gold-198, and iodine-131 were mentioned as among the isotopes handled.)

Our next stop was at the cyclotron which was described as one of the old type with a constant field. Dr. Martalogu was our guide. The cyclotron was built near Leningrad in Factory 304 in 1958. The diameter of the pole pieces is 120 cm and maximum energy for alpha particles is 28 MeV. I noted it was similar to the 60-inch machine at Berkeley on which I did some of my original work. I also met Dr. Alexander Berinde and Dr. Mihai Macoraei.

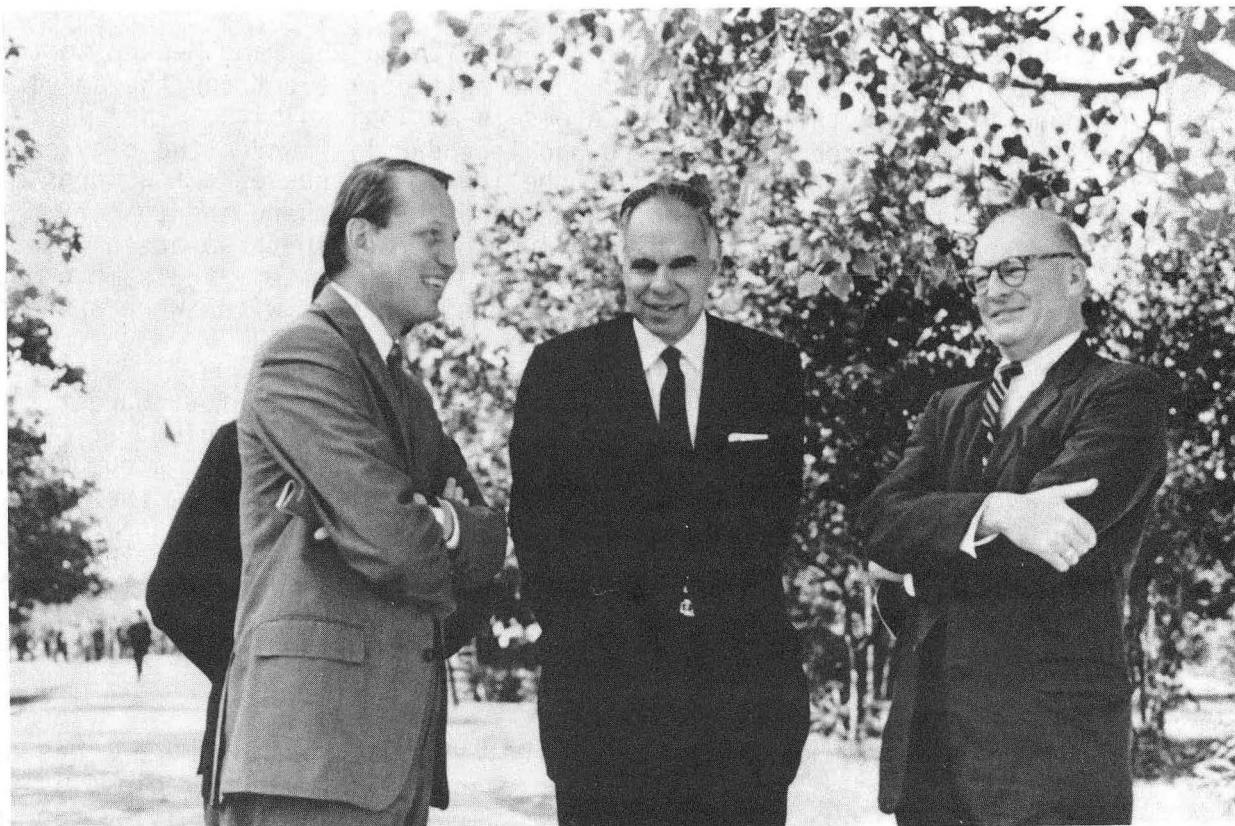
I was introduced to Dr. and Mrs. Vilcov who had worked on fission isomers at Kansas State University. (This had been called to my attention in a letter from Professor Robert B. Leachman, Kansas State University, before I left on my trip.) The main function of the laboratory is study of mechanism of nuclear reactions. They described work conducted for six years using a pulsed proton beam on lithium as a neutron source. A U^{235} target is currently being investigated by detecting fission fragments with a spark chamber having a resolution time of 35 nanoseconds. A new isomer of U^{235} at 100 nanoseconds was reported. These data were also reported at the University of Washington by Bob Vandenbosch and described at the Gordon Research Conference earlier this year. (Vandenbosch did his work with alpha particles and the Vilcovs used neutrons.)



Institute for Atomic Physics, Magurele (Bucharest); October 1, 1969.
Seaborg group meeting with Romanian group; Ioan Ursu speaking.

During the refreshment period after the tour I gave copies of Man-Made Transuranium Elements to Ursu, Toica, Mercea, Purica, Petrascu, and Martalogu. I left nine autographed "Seaborg on Science" records for distribution at the discretion of the Deputy Director. We reviewed the morning's negotiations by Ursu, Kratzer, et. al.

I then rode with Hulubei and Barnes to the site of the U.S. Atomic Energy Commission's Atoms-in-Action exhibit. The others in our group and the scientists from the Institute for Atomic Physics followed in other cars. Here, while we were waiting for the exhibit opening ceremonies to start, I met Professor Gheorghe Buzdugan, Chairman, National Council of Scientific Research. He is the counterpart of U.S. Presidential Science Adviser Lee DuBridge, and he was DuBridge's host during the latter's recent visit to Romania. I also met Robert Gros (of Pacific Gas and Electric Company) and his wife (they were touring a number of European countries), M. "Seth" Mizushima (University of Colorado), and many others.



Opening of U.S. AEC Atoms-in-Action Exhibit, Bucharest; October 1, 1969.
L to R: H. G. Barnes, Seaborg, L. C. Meeker.

Vice Chairman of the Council of Ministers (Deputy Prime Minister) Emil Draganesci was scheduled to attend the opening ceremonies, but he was detained with President Ceausescu in connection with school opening ceremonies at the University of Bucharest.

Bradburne presided over the ceremonies inaugurating the Atoms-in-Action exhibit. He called first on Ambassador Meeker, who spoke in Romanian. Professor Hulubei spoke next, in Romanian; following his talk Catinca Ralea repeated it in English. I spoke next from my prepared text, with sentence by

sentence translation into Romanian by Chisleag. Movies and pictures were taken by the press and by Rubin during the preliminary talks and during the ribbon cutting.

Hulubei and I then participated in the ribbon cutting ceremony--I cut the ribbon with the Romanian colors and Hulubei cut the ribbon with the U.S. colors and we each kept samples as souvenirs. We then went through the exhibit, with the crowd, listening to the lecturers and looking at the lecture demonstrations. I met Francois Kertesz, who is in charge of the technical information for the exhibit--he is the person responsible for the machine translation at Oak Ridge for me of the Russian articles we have sent them. He interviewed me on tape on the nature of the Atoms-in-Action exhibit and my visit to Bucharest. He said the interview will be the first addition to a tape library that he is starting at Oak Ridge--this will be sort of modern Voices of the Past collection.

Following the opening ceremony and tour I rode with Hulubei and Meeker to the restaurant Bucur, where I hosted a lunch, a traditional event for the American host in connection with the opening of Atoms-in-Action exhibits. The restaurant was named after the shepherd who legendarily founded the city of Bucharest some 500 or 600 years ago. At the lunch I expressed a few words of welcome, referring to the restaurant, Bucur, and the shepherd and to our progress in expanding cooperation between our countries in the peaceful use of nuclear energy. The guests at the luncheon were approximately the same group that were at the dinner the evening before, except that no wives were present on this occasion.

After lunch I rode with Hulubei and Meeker to the University of Bucharest, where I was scheduled to speak on "New Outlook for the Transuranium Elements." On the way we drove around the city a little, passing a number of interesting buildings, the National Bank, the Ministry of Finance, the Basilica Russache, Cismigiu Gardens, etc. We saw a campus of the University of Bucharest where Hulubei was present in his role as Rector during the war when American planes bombed it and destroyed much of it--he said he told the students and faculty at that time he was sure it was a mistake and we had not intended to bomb a University. Construction was still underway to repair the damage and replace some of the buildings.

We proceeded to another campus of the University of Bucharest. Here I was met by the Vice Rector, Peter Spacu (an inorganic chemist). We were joined by the other members of our party and the Romanian scientists. While waiting for the lecture to begin, we assembled in a room where I was interviewed on tape by Catinca Ralea for use on Romanian radio. I described U.S.-Romanian cooperation in the peaceful uses of nuclear energy, the three-fold purpose of the Atoms-in-Action exhibit, etc. I was also interviewed on tape by a young reporter, Nicoleta Soces of the newspaper, Scinteia. She had four written questions, three dealing with material covered in the previous interview plus additional details on my impression of Romanian nuclear work. A fourth question, involving my views on the NPT and what the next step in disarmament would be, was answered after my lecture (after much persistence by Miss Soces).

Professor Spacu introduced me for my lecture. "New Outlook for the Transuranium Elements," which was illustrated by slides and followed by a question and answer period.

I then went back to the same room for a number of press interviews. First Hulubei and I were interviewed by Catinca Ralea for a new TV series (the first

in the series) on the role of science, etc. The TV Director was Ion Petru, Head of Scientific Department, Romanian TV. I spoke about the past, present, and future role of nuclear energy. I was then interviewed on TV and tape by Dr. Bacalu Ady of Romanian TV on the Atoms-in-Action exhibit, etc., and by Toma George Maiorescu of Contemporanul (a weekly review of scientific and cultural events). The questions dealt with my views on how science and nuclear energy would affect the cultural aspects of life in the year 2050, and whether I foresaw any dangers in technological development. I responded by noting how science had the potential for improving health and intelligence through genetic investigations and biomedicine; also how it could reduce suffering, and increase span of life. I mentioned that more leisure time resulting from scientific benefits would provide opportunity for more people to enjoy poetry, art, etc. As to the danger from technological developments, I expressed confidence we could control it to avoid the dehumanized man.

I presented "Seaborg on Science" records to Professor Spacu and to Soces, Petru, and Ralea.

I then rode with Katzen back to the Embassy residence. I found a large multiple unit gift from Hulubei in my room, 6 red table linen placemats and a red linen scarf, a book Voronet, and a set of four records. I also received three records from Chisleag.

During the reception preceding the dinner at the Embassy residence, Rubin and I talked by phone with Marie Janinek and Justin Bloom and were brought up to date on events at home. We learned that things are in pretty good shape, but there is continuing and increasing severe public and congressional criticism of the MILROW weapons test scheduled to occur in Amchitka tomorrow. The Soviets conducted another underground nuclear test at Semipalatinsk and approval was obtained from the White House to make a press release announcing it. My office was informed that Vincent Guinn of Gulf General Atomic had decided not to accept the position with the IAEA. I had spoken in his favor to Dr. Eklund while I was in Vienna.

I attended the buffet dinner given in my honor by Ambassador and Mrs. Meeker in the Embassy residence. Over 50 people were present, including Hulubei, the Ursus, and many other Romanians who had been our hosts during our stay in Bucharest; Embassy officers and their wives; and my group. I sat at a table with Kertesz, Chisleag, Petrascu, and Mrs. Katzen. After dinner I presented gifts to our Romanian scientist hosts. I presented a Polaroid camera with a pack of color film and a color Apollo 11 album to Hulubei, copies of the book American Heritage - Pioneer Spirit each to Ursu, Titeica, and Stoica, and American Heritage - Three Centuries of American Art each to Ciorascu, Rodean, and Constantinescu. We gave a copy of my Leningrad talk "New Dimensions of the Periodic System," to Ursu for possible publication in Romania; he was also given a uranium desk piece. I gave a copy of Elements of the Universe, Man-Made Transuranium Elements and the "Seaborg on Science" record to Chisleag. Chisleag gave me a book on Romanian archeology and two pamphlets and Ursu gave me a copy of his book, Electron Spin Resonance. I spent the night in the Embassy residence.

Thursday, October 2, 1969 - Bucharest, Zurich, Lisbon

I had breakfast with Leonard and Beverly Meeker. I then rode to the airport with Meeker's driver in the Ambassador's car. We drove by the Arch of Triumph

on the way. Here I met the members of our party (including John Vinciguerra and the Mel Abrahams), Harry Barnes, Jay Katzen, Horia Hulubei, Ioan Ursu, Ionel Purica, M. Patrascu, and a large group of the Romanian scientists who had come to say goodbye. I was interviewed by Petru Uilacan (of Alger press, the national Romanian Press Agency) on the present and future U.S. effort in nuclear power (breeder reactors and fusion reactors), the present nuclear power situation in the U.S., and the prospects for cooperation between Romania and the U.S. in the development of the peaceful uses of nuclear energy. (I said prospects were good.)

During our stay in Bucharest we were given copies of the articles that I had written before I left home, the article, "Problems and Perspectives," for the magazine Lumea, (October 2 issue) and the article, "What Role Does Sport Occupy in the Life of Modern Man? A Valuable Source of Relaxation and Escape From the Tensions of Professional Life," for the newspaper of the National Council for Physical Education and Sport (October 1 issue).

A few concluding remarks about this stage of my journey are appropriate here. It seems worth noting that, in contrast to our low-key (though cordial) reception in Czechoslovakia, the Romanians gave maximum publicity and visibility to our visit. My lengthy discussion with President Ceausescu received major press coverage, and the several press, radio, and TV interviews mentioned in my journal were given wide circulation. The Atoms-in-Action exhibit attracted impressive interest and attendance in the weeks that followed. In these and other ways the Romanians clearly showed their desire for closer ties with the U.S. and, more broadly, the West in general.

From Bucharest we headed west to Europe's other extreme--to Portugal, one of the first nations with which the U.S. collaborated under the Atoms-for-Peace program.

The Rubins, Kratzer, and I then boarded Swissair Flight No. 467, which left Bucharest about 8:30 a.m. We made a stop in Budapest on the way, which afforded us an excellent aerial view of the city, including a good view of the Danube and the island Margaret in the Danube, which includes the Grand Hotel where we stayed during our visit to Budapest. On the bus from the plane into the airport I met E. T. O'Sullivan of Radiation Machinery Corporation who was traveling in Europe for several trade shows. We arrived in Zurich at 11 a.m. In Zurich we were helped while in transit by Henry A. Engelbrecht (U.S. Embassy). We flew on Swissair Flight No. 690 to Lisbon, leaving Zurich at 12:30 p.m. and arriving in Lisbon about 2:30 p.m.

Starting in 1955, Portuguese-U.S. cooperation in peaceful nuclear applications has included the supply of a U.S. AEC Depository Library; a grant toward the cost of a research reactor at Portugal's Nuclear Physics and Engineering Laboratory at Sacavem, north of Lisbon; the transfer of radioisotopes and of special nuclear materials for use in the reactor; and presentation of exhibits. Visits and assignments in U.S. AEC facilities have been arranged; and U.S. consultants have been made available in the areas of reactor hazards evaluation, nuclear physics, and raw materials. This latter area is of special importance to Portugal, whose status as a uranium producer has entitled it to a position in alternate years (alternating with Belgium) on the IAEA Board of Governors. On July 3, 1969, I signed an agreement between the U.S. Government and the Government of Portugal which extends cooperation between the two countries in the research reactor area for ten years.

I had originally planned to visit Lisbon in the course of my 1968 General Conference trip. But two days after leaving Washington on that trip, I received a cable in Germany from the State Department asking me to omit the Lisbon stop. Brigadier General Kaulza Oliveira de Arriaga, President of Portugal's Nuclear Energy Board (JEN), was regarded as one of several possible successors to Premier Antonio de Oliveira Salazar--then reportedly near death following the stroke suffered shortly before--and it was feared that my visit at that time might be misinterpreted as U.S. support for de Arriaga.

In the spring of 1969 the JEN President toured the United States on a Department of State leader grant, accompanied by Adelino Nogueira da Costa, the JEN official responsible for international affairs. I had the pleasure of meeting with them during their stay in Washington, and General de Arriaga urged me to visit his country.

We were met by Soeiro de Brito (Vice President and Acting President of the Junta de Energia Nucleare, JEN), Costa Lourenco (Secretary to the President of JEN), Adelino Nogueira da Costa, Dr. Carlos Cacho (Director of Sacavem Nuclear Laboratory), Fernando M. Videira (Director of Reactor Division, Sacavem), Joao Dinis Ferreira (Director of Mining Division, Sacavem), Dr. F. Costa Reis (International Services, JEN), Robert Zimmerman (Deputy Chief of Mission, U.S. Embassy), and Robert Bentley (our Embassy control officer and a graduate of the University of California, Berkeley, in 1960 when I was Chancellor--we met during his student days at a reception). Pictures of our arrival were taken for TV and shown on the evening news.

I was interviewed on tape by Fernando De Oliveira of the Lisbon Airport Information Media Office, which services all Lisbon news media. He asked me about the present status of the IAEA (I said it was growing in strength, was indispensable and of increasing importance), the recent Chinese nuclear weapons test (I said it was only one step in a progressive series of tests), and the degree of adherence to the Limited Nuclear Test Ban Treaty (I said that the adherence to the provisions was complete, that underground nuclear weapons tests were being conducted but these are permitted by the Treaty).

I rode to the Ritz Hotel with Soeiro de Brito and Lourenco, stopping for a view of Lisbon and the Tagus River from a spot near the Hotel. My suite afforded a spectacular view of Lisbon (the Hotel is located on a hill).

My suitcase was lost, or at least couldn't be found with the luggage of our group that arrived in Lisbon.

Kratzer, Rubin, and I rode with da Costa and Costa Reis to a meeting at JEN headquarters. Also present were Soeiro de Brito, Cacho, Videira, and Bentley. There was a discussion of the impending expansion of the Board of Governors of the IAEA. Da Costa was worried that this would mean that Portugal would lose its preferred position (based on its historical position as a uranium producer) and would never be elected to the Board of Governors. We tried to assure him that Portugal would get its turn by election periodically as its area representative. We also discussed the NPT. Soeiro de Brito felt that Portugal should get some quid pro quo for giving up its right to manufacture nuclear weapons, and he was concerned about the lack of guarantees to non-nuclear countries that sign the NPT. He thinks the NPT favors the nuclear powers too much and therefore he doubts that Portugal should ratify it, at least until many other non-nuclear weapons countries do.

I tried to explain to him the advantages of non-nuclear weapons countries adhering to NPT compared with disadvantages of their producing nuclear weapons.

I then rode with Soeiro de Brito and da Costa to the Parliament Building where we met with Minister of State (Deputy Prime Minister) Alfredo Vaz Pinto. Some pictures were taken during the interview. The discussion covered a wide range of topics over about an hour's time. Pinto was President of Portuguese Airways for the 10 years preceding his present position which began earlier this year. (He is an excellent administrator and Portuguese Airways grew enormously during his tenure and became a successful money maker. He was also successful before this as administrator of a number of industrial enterprises.) He told me that he was trained as an engineer. We talked about the problems of operating an international airline. In connection with the problem of keeping the secret of nuclear weapons, Pinto said it is too late to do this--the secret is out--it was not kept so well as that of the early Portuguese navigators which enabled them to dominate merchant shipping so many years. We discussed the NPT. Pinto said he was not yet familiar with all the terms and implications of the Treaty. In answer to a query I told him I regarded the NPT as very important and Portugal's adherence to it also important. We discussed the status of nuclear power in the U.S. and the status of the transuranium elements with the prospects for superheavy elements. I said I would give him a copy of our Scientific American article on the synthetic elements (I left an autographed copy with da Costa the next day to pass on to Pinto). He suggested that he might call on me when he visits the U.S. in the future and I encouraged him to do so. He invited me to visit Portugal again and to lecture in the universities when I do.

I rode back to the Ritz Hotel with da Costa. Since my luggage was still lost, Kratzer loaned me his tuxedo to attend the black tie reception and dinner given by Commander and Mrs. Soeira de Brito. In addition to the Rubins and Kratzer, those present at the dinner were U.S. Ambassador and Mrs. Ridgway B. Knight, Mr. and Mrs. Zimmerman, Mr. and Mrs. Bentley, and the following Portuguese officials (almost all accompanied by their wives): Professor Doutor Fernando Carvalho Barreira (Rector, University of Lisbon), Professor Doutor Antonio Herculano de Carvalho (Retired Rector, Technical University), Professor Eng^o Manuel Jose de Abreu Faro (President, Institute of High Culture), Dr. Adriano de Carvalho (Assistant Director Economic Affairs, Ministry of Foreign Affairs), JEN Vice President Soeiro de Brito (host), Dr. Carlos Madeira Cacho, Eng^o Antonio Albuquerque e Castro (Director for Planning), Eng^o Joao Dinis Ferreira, Eng^o Fernando Marques Videira, Eng^o Adelino Nogueira da Costa (Director, International Services), Dr. Francisco da Costa Reis, and D. Madalena Flores. I sat between Mrs. Soeiro de Brito and Mrs. Herculano de Carvalho. Toward the end of the meal de Brito expressed a word of welcome, describing my career and suggesting a toast in my honor. I responded with thanks on behalf of the American group, expressed thanks for the presence of the University Rectors and mentioned my days as Chancellor at Berkeley, mentioned my meeting with State Minister Pinto, and toasted continuing friendship and cooperation between the U.S. and Portugal.

One of the guests told me that Victor Crespo (a visiting scientist in the Radiation Laboratory at Berkeley some 15 years ago) is now Vice Rector, University of Lourenco-Marques, Mozambique.

After the dinner Kratzer, Rubin, and I rode with da Costa to the Palace das Necessidades (home of the Foreign Office) where the Foreign Office gave a reception for the guests of the Gulbenkian Foundation. Guests from countries all over the world were present in connection with the inauguration of the new building of the Gulbenkian Foundation. I met Dr. Franco Nogueira, the Minister of Foreign Affairs, and Mrs. Franco Nogueira, and Dr. and Mrs. Jose Azeredo Perdigao (President of the the Gulbenkian Foundation) in the reception line. Among the people I met were Dr. Jose Hermano Saraiva (Minister of National Education), Theodore Xantacki (former Counsellor, the U.S. Embassy in Lisbon), Dr. Carlos Chagas (Brazilian Ambassador to UNESCO), Chagas's niece (a friend of the John Palfreys), and John Walker (Director, National Art Gallery of Washington). I had a talk later with Nogueira who told me that the Gulbenkian Foundation is the fourth largest in the world (after Ford, Rockefeller, Rothschild) with assets in U.S. investments of \$300 million.

Kratzer, Rubin and I then returned to the Ritz Hotel in a JEN car, where we spent the night.

[Following is an account of today's major activities in the Washington AEC office.

At 11 a.m. Under Secretary of State Richardson's office called my office requesting that a conference call be set up among the acting Chairman of the AEC (Johnson), the Office of the Secretary of Defense, Mr. Kissinger's office, and Mr. Richardson, to discuss a message that had been transmitted from the Foreign Minister of Canada to the Canadian Ambassador in Washington and thence to Mr. Richardson. Each of the parties was to have a copy of the memorandum of conversation with the Canadian Ambassador at hand before the conference call was set up. Arrangements were made to obtain a copy of the memorandum of conversation (copy attached) with the Canadian Ambassador before the conference call was placed.

About 12:30 p.m. the conference call came through with Commissioners Johnson and Larson talking for the AEC, Mr. Packard for the DOD, and Richardson for State. Colonel Haig, representing Mr. Kissinger, was also on the line.

Deputy Secretary Packard and the Commissioners were very strong in not wanting the shot postponed. Richardson appeared to be the only one who was opting for a postponement for a day or two using some excuse such as weather, and this was vehemently opposed by others on the basis that the actual reason for the postponement would leak. After a conversation lasting almost an hour, it was agreed that Richardson would pursue the matter further and there was a possibility that he or Secretary Rogers would be going to the President with the matter. Another conference call was to be arranged at 3:30 or 4 p.m., which was the latest that a decision could be made to postpone the shot.

About 3 p.m. Commissioner Johnson was advised by the White House that the shot would not be postponed.

The MILROW event took place at 6:06 p.m., EDT, the six-minute delay being due to an observation aircraft being out of position. The CP pitched and rolled with the ground motion and sustained some damage. No one was

PARAPHRASE

MEMORANDUM OF CONVERSATION, October 2, 1969, between Canadian Ambassador and Mr. Hillenbrand (Assistant Secretary of State for European Affairs)

The Canadian Ambassador phoned to say that he had just received a call from Mitchell Sharp, Canadian Foreign Minister, in which Sharp noted there had been an earthquake in California early today. Canadian seismologists say that, although fact of shake does not alter their judgment that Amchitka test is unlikely to lead to an earthquake affecting Canada, they do note that earthquake such as occurred in California is generally followed by tremor in Gulf of Georgia off the Columbian coast. Such a tremor is likely tomorrow. It is almost inevitable that Canadian public will blame it on Amchitka test. As we know, Canadian press, universities and public have been very agitated about the whole business.

In any event, Foreign Minister Sharp suggests that purely on political-public relations grounds, and not scientific grounds, we consider whether holding off the test for a few days might not be the better part of wisdom.

Hillenbrand told the Ambassador that the Foreign Minister's views would be passed on to the appropriate U. S. authorities.

injured. A few RAMS units went out because of the shock, but all remaining ones read only background. Mr. Holifield broadcast a very complimentary congratulatory message over the Armed Forces Radio Network from the CP. Radio and wire service news coverage was complete and available within a few minutes after the event.

The highest seismic reading was 6.5 and the lowest 6.0, with a value of little less than 6.5 being the most probable. Thus the device performed almost exactly as expected and the prediction of seismic magnitude was excellent. Mr. Holifield spent the night on the island. No subsidence crater was formed.

This information was passed on to Toner and Kriegsman of the White House. I understand that at the time of the shot the President and Dr. Kissinger were flying to Florida on Air Force 1 and that a radio message on the results of MILROW was sent to them through military channels.

Will Kriegsman of the White House staff called my office to express his personal concern about the AEC's lack of responsiveness to the White House decision on how to proceed with the future operation of the diffusion plants. He believes that the AEC is still trying to convince the White House that its own views should be implemented. Kriegsman was also concerned that communications between the White House and AEC have degenerated because too many individuals have undertaken to provide information in one direction or the other. He believes it will be necessary for me to meet with Peter Flanigan to discuss how to improve the situation.]

Friday, October 3, 1969 - Lisbon; New York; Washington, D.C.

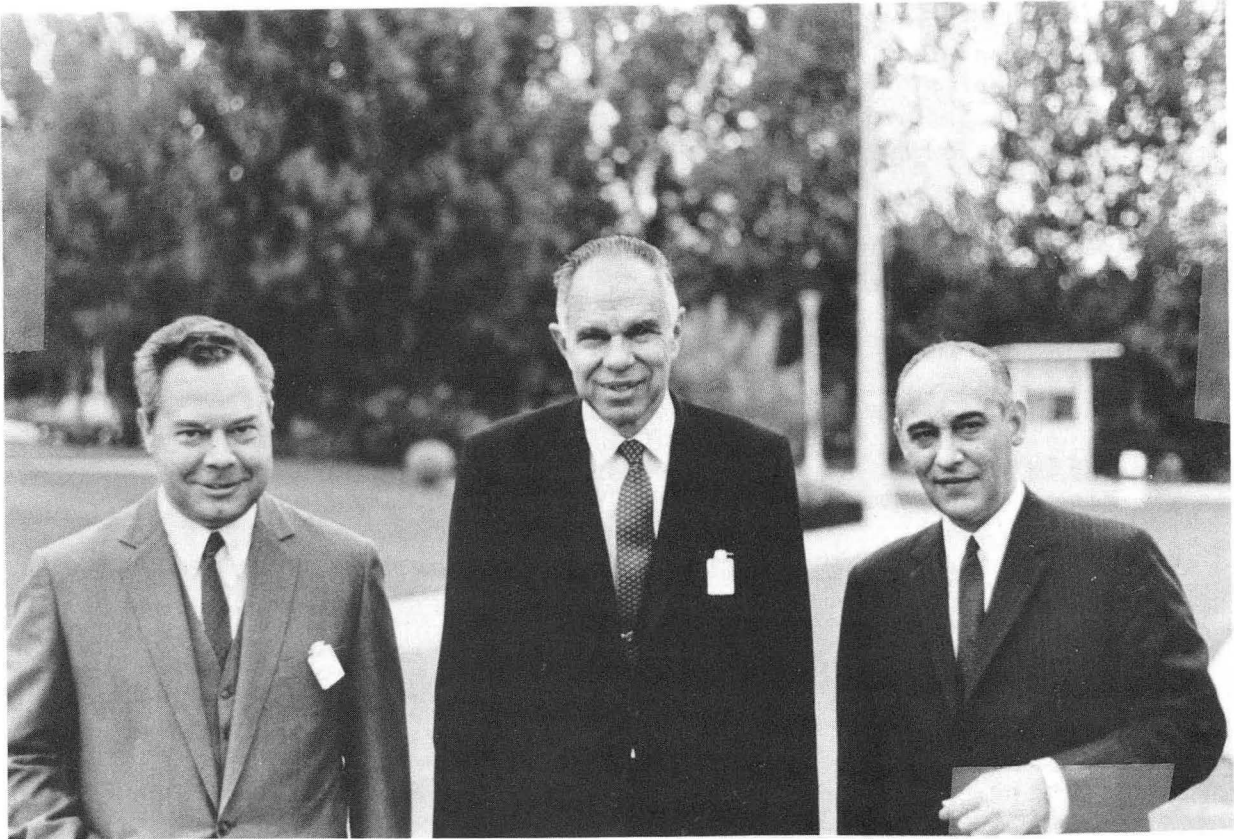
Rubin and I rode with da Costa to the Sacavem Nuclear Laboratory, the Laboratorio de Fisica e Engenharia Nucleares (LFEN). Kratzer and Bentley followed in another car. The Laboratory is situated on what formerly was farmland.

We were met at the Laboratory by Soeiro de Brito, Cacho (Director), and Dr. de Gama Carvalho (Deputy Director). We went first to a meeting room to hear a description of the Laboratory and its program given by Cacho. He said the Laboratory was divided into the following functional areas: planning, prospecting and mining laboratory, nuclear power and nuclear fuel, physics, chemistry, metallurgy, reactor, biology and health physics. The Laboratory consists of about 10 buildings and has about 500 people, including about 130 scientists.

We then toured the laboratory under the overall guidance of Cacho, Soeiro de Brito and de Gama Carvalho.

First we saw the Physics Department under the guidance of Dr. Joao Souse Lopes, its Director. They have a 2 MeV Van de Graaff from High Voltage Engineering Corporation.

Then we toured the reactor area under the guidance of Dr. Ramalho and de Gama Carvalho (the reactor is his main area of interest). The reactor is a 1 MW American Machine and Foundry swimming pool type obtained under the U.S. grant program. Plans are being made to add another heat exchanger



At Sacavem Nuclear Laboratory, Lisbon; October 3, 1969.
L to R: J. Soeiro de Brito, Seaborg, C. Cacho.

and increase power to 2.2 MW. Some of the standard features were described such as a thermal neutron column, radioisotope production facilities, etc. Our guide was Engineer Frederick Carvobolo. It was mentioned they are acquiring a PDP 15 computer and with some help from Germany plan to link the data control and logging for the reactor and Van de Graaff to permit joint experiments.

Then we were shown the Radioisotopes Production Section by Amelia Rezio, head of radiochemistry. We were given a tour of the Chemistry Building by Joao Peixoto Cabral, Director of this Department. There was a very small hot cell with rather crude manipulators. Isotopes were being prepared for use in the laboratory and at other locations. A capability was mentioned for iodine-131, gold-198, copper-64, sodium-24, and potassium-42. Description was given of work on irradiating crystals in the reactor and studying the chemical effects of the irradiation and the recoil products. Our guide was Pixeto Pabral, head of the chemistry laboratory.

Some work with polymerization of soft woods by irradiation was also described. The wood used is Choupo, which is a very light colored and light weight wood like balsa. Similar work is also being done on bark from the cork trees that are plentiful in this region.

A Varian electron spin resonance machine was shown that was a gift from the IAEA (one of our equipment grants).



Sacavem Nuclear Laboratory, Lisbon; October 3, 1969.
Seaborg and Kratzer with Soeiro de Brito, Cacho and the staff of the Laboratory.

A small scale solvent extraction plant for uranium ore was described. Their uranium concentrates have a very high sodium chloride content and they are investigating ways to lower the sodium content in the U_3O_8 . A new mine in the south with reserves of 3,000 tons was mentioned and the laboratory will soon be investigating extraction chemistry for this ore.

It was reported that one of their scientists was working with Professor Mike Maddock at the University of California, Riverside, in electron spin resonance. Cabral told me that Dr. Maddock serves as a consultant to his department and visits them periodically.

We also were shown the work in Metallurgy by Carvalhinhos, head of this department, who was trained in England. Research was described on metals they will be using in the future, uranium metal mechanical properties, zirconium hydriding, alloying with aluminum. Some of the equipment was purchased from France as part of an arrangement for exchange of information. Among the others we met were Dr. Julio Galvao (Director for Health Physics), Dr. Antonio Motos Fernandes, and Dr. Augusto Ribeiro da Fouseca (Director for Angola).

All in all, the Portuguese nuclear center is a rather modest operation and the sophistication of the work is not yet very high. However, it is the largest scientific research institution in Portugal, and it is unquestionably making an important contribution to the development of a scientific and technological capability in the nation.

After our laboratory tour, we proceeded to the auditorium where I gave my talk on the transactinide elements to a full house (perhaps about 100 laboratory scientists with a few outside visitors). My talk was illustrated with slides and followed by a question and answer period.

We then went to a room where the senior staff gathered and refreshments were served. We exchanged some gifts. I gave Cacho a copy of my Leningrad talk, "New Dimensions for the Periodic System," for possible publication in Portugal. I also gave him an autographed copy of my article in Annual Review of Nuclear Science. I gave an autographed copy of Elements of the Universe to de Brito, and left copies for Professor de Carvalho and Professor de Abreu Faro. I also left an autographed copy of Man-Made Transuranium Elements for Professor Carvalho Barreira. I gave a desk sample of concrete polymer to Soeiro de Brito. He gave me a copy of a book, The Selective Traveller in Portugal and Cacho gave me a medal (the last available) commemorating the inauguration of the Sacavem Nuclear Laboratory in 1961. We were also given some bottles of wine.

I rode with Soeiro de Brito and Lourenco to the airport. Rubin and Kratzer followed in another car and we met Em Rubin at the airport. Cacho, Ferreira and others from the Sacavem Laboratory were also there to see us off; and Pereira Coutino, Secretary to the Minister of State Pinto, came to extend Minister Pinto's best wishes for a pleasant journey. Soeiro de Brito told me that he thought Portugal would ratify the NPT after a number of other non-nuclear weapon states had done so.

I was interviewed by Oliveira again. He asked me questions about my visit to Sacavem and the prospects for cooperation between the U.S. and Portugal in the peaceful uses of nuclear energy. I described our cooperation briefly and suggested it would increase.

The Lisbon newspapers gave rather extensive coverage to my visit.

Portugal has made studies indicating that nuclear power might be introduced in the latter half of the 1970's. Portugal's principal technical ties in the peaceful uses of atomic energy are now with other Western European countries, especially France and the United Kingdom, although the Portuguese are anxious to maintain and increase their contacts with us too.

During the morning I learned that my suitcase had been located in Zurich and had been put on Swissair Flight No. 538 to Frankfurt and Pan American Airlines Flight No. 107 to Dulles Airport, due at 5:45 p.m.

The Rubins, Kratzer, and I flew on Pan American Airlines Flight No. 155 to New York, leaving Lisbon about 2:15 p.m. The plane was completely full. During the flight I read AEC papers, which we had received in Lisbon and Bucharest. We arrived in New York (Kennedy Airport) about 4:55 p.m. (about an hour late). We were helped through customs, etc., by Joe Maffucci of the New York AEC Operations Office, and then flew on an Eastern shuttle from LaGuardia Airport to Washington National Airport, leaving about 7:40 p.m. (about one hour and 40 minutes late) and arriving about 8:30 p.m.).

Saturday, October 4, 1969 - D.C.

I spent the whole day in the D.C. office until about 6 p.m. answering correspondence and signing letters, reading AEC papers and magazines and in general catching up on work accumulated during my absence in Europe.

During the afternoon I saw parts of the baseball playoff games between the Minnesota Twins and the Baltimore Orioles, which Baltimore won 4-3, and the game between the New York Mets and Atlanta Braves, which New York won 9-5.

Dianne's friend, Amy Ballou, spent Friday and Saturday night with Dianne.

Sunday, October 5, 1969 - Home

I read AEC papers most of the day and worked on my speech, "From Mendeleev to Mendeleevium and Beyond," for the Welch Conference on the Transuranium Elements to be held November 17-19, 1969, in Houston, Texas.

I took a hike with Suki in Rock Creek Park on the White Horse Trail to Cross Trail No 2 and back on the Black Horse Trail and Cross Trails No. 3 and 4 to my starting point at Oregon and Nebraska Avenues.

I watched on TV the football game between the Washington Redskins and San Francisco 49ers, which ended in a 17-17 tie. I also watched the end of the New York Mets and Atlanta Braves baseball playoff game--New York won 11-6.

Monday, October 6, 1969 - D.C.

At 10 a.m. Commissioner Johnson came in to see me to give me a report on the rather hectic happenings during my absence in Europe, most of which time he served as Acting Chairman. He kept a diary during this period, a copy of which is available. He also suggested that there were a number of items that the Commission might take up in executive session, limited to the Commission and General Manager. These include: (1) a review of our whole public acceptance problem and the question of whether a consequence might be that we should look toward an early separation of our regulatory function, (2) the question of the gas centrifuge method for enriching U-235 and the role that industry might play in this, (3) the problems with the Liquid Metal Fast Breeder Reactor Program and the matter of whether industry should bear a higher share of the cost as suggested in Robert P. Mayo's October 1, 1969, letter (copy attached), (4) the question of our policy on cooperation with foreigners on gaseous diffusion plant information, a matter which has been hung up in the State Department for some time, and (5) the question of personnel clearance of industrial people in connection with our safeguards program, a matter which if pressed, could have some police state aspects. I also suggested that it will probably be impossible to conduct the STURTEVANT Plowshare event as an excavation shot in the present climate of public opinion.

During my absence we received the markup of the House Appropriations Committee on the Atomic Energy Commission's Fiscal Year 1970 appropriations bill--this included rather drastic reductions. The most

EXECUTIVE OFFICE OF THE PRESIDENT

BUREAU OF THE BUDGET

WASHINGTON, D.C. 20503

UNCL 2V 90R
NOV 55

OCT 1 1966

Honorable Glenn T. Seaborg
Chairman, U.S. Atomic Energy
Commission
Washington, D. C. 20545

Dear Glenn:

As you already know, we are moving into a very restrictive situation with respect to the preparation of the FY 1971 budget. Over the past several months I have been making a preliminary assessment of the prospective program and budgetary needs for FY 1971 and beyond with a view to advising the President on our overall budget strategy this fall.

One of the program elements which has struck me forcibly during this review is the magnitude of AEC's expenditures for the development of advanced civilian power reactors. I have been impressed by the fact that AEC's current expenditures in this area, which we estimate to be roughly \$275 million when one includes appropriate portions of the supporting reactor development work, are far in excess of total Government R&D expenditures on all other energy resources combined. I am particularly concerned that AEC's planning projections of last spring indicate a desire to increase outlays in FY 1971 to a level in the range of \$350 million, with even greater spending projected in subsequent years. These figures would be even larger if one were to include amounts for administration and the cost of special nuclear materials used in the program. I am struck also by the fact that the development of improved civilian power reactors is essentially a commercial and industrial enterprise, even though a significant degree of Federal guidance and support may well be expected for some years to come.

The largest element by far in AEC's civilian power development program, is, of course, the Liquid Metal Fast Breeder Reactor Program, and I am well aware of the fact that the Commission considers this to be its highest priority development program in the civilian area. Because the electric power industry and the equipment supply industry appear to have sufficient incentives and financial resources to shoulder a much larger share of the research and development investment, and because of the extraordinary pressures upon the Federal budget in the years immediately ahead, I believe that we must make a strenuous effort to reduce the dollar level of AEC's current support for the LMFBR and the other portions of the civilian power development program.

Among the means which appear to be available to accomplish this objective are the following: (1) to effectuate a plan for greater cost participation by industry in the LMFBR program, where considerable industrial interest

and planned investment is apparent; (2) to reduce further the number of backup efforts to the LMFB, especially those programs where little commercial interest has materialized; and (3) to give consideration to some stretchout in the LMFB program. There may well be other opportunities which occur to you.

Of the means described above, I am most attracted to numbers 1 and 2. When one considers the immensity of financial resources and cash flow in the electric utility and electric equipment manufacturing industries, one must conclude that industry should carry a significantly greater fraction of the total national R&D load for the LMFB than prevails at the present time. We would further expect that the aggregate amount of Federal spending for civilian nuclear power development should be reduced substantially below current dollar levels in subsequent years, with increasing cost participation by industry.

We recognize that securing more funding participation by private industry in the development of improved civilian power reactors presents formidable procedural problems. However, we believe that this is an important and, indeed, necessary objective which is far preferable to the alternative of a reduced effort which budget constraints may otherwise impose.

I have taken the unusual step of writing this letter to highlight this problem, because I believe we must tackle the problem at once if we are to achieve an optimum solution. We will be pleased to assist you in this endeavor.

I should greatly value having your reaction to my letter at your earliest convenience.

Sincerely,



Robert P. Mayo
Director

severe of these were the shutdown of one of the two K reactors at Hanford, implemented in the form of sequential operation of the two reactors, a reduction in the construction budget for the 200 Bev Accelerator of \$32 million--that is from \$96 million to \$64 million, and a reduction of some \$9 million in capital equipment. We also have a problem with Senator Allen J. Ellender of the Senate Subcommittee on Public Works that deals with the AEC budget, who is demanding a large reduction in our reactor development program on the basis of advice from Larry Bogart (attached are copies of Ellender's September 20 and 26 letters).

We have learned from the White House that we are to discontinue our news items to Mr. Albert Toner. These have been sent on a nearly daily basis. Apparently this has not been a successful method of reporting overall from the standpoint of other agencies.

At 12:40 p.m. I had lunch in the Longworth cafeteria in the NSF building with Julie Rubin, Justin Bloom, Stan Schneider, and Bob Kaye.

I received a letter from Vice President Agnew dated October 6, 1969, regarding the oceanographic program (copy attached).

At 3:55 p.m. I received a telephone call from Dr. Fred Albaugh (Richland). He said the next 2-3 years will be very critical for the FFTF. They have a fighting chance with a \$109.3 million budget, if they're left alone and if they can be rescued from double and triple checking everything; if not, then the chances are zero. Next Thursday Bechtel will release a cost estimate on the FFTF, which will contain "all the Shaw goodies" of balancing safety factors against safety factors, and they believe it will be over \$200 million. All the enemies will jump up at that time; and, if Shaw wants to jettison it, this will be an excellent opportunity. Fred feels this estimate is meaningless. I said Shaw would have no motive for jettisoning this. We agreed that we will discuss this further when Fred comes in on October 20.

I called Dr. Donald J. Montgomery, (Michigan State University, East Lansing, Michigan), in reply to his call during my absence. They are looking for candidates for the presidency of their university and asked me if I would be willing to have my name on the list. I told him my plans eventually are to return to Berkeley.

The text for the Treaty on the SEABED (copy attached) which has been finally agreed to between the U.S. and U.S.S.R. was tabled today in Geneva.

Eric, Suki, and I took a hike in Rock Creek Park on the White Horse Trail and along Cross Trails No. 3 and 4 and back on the White Horse Trail to our starting point at Oregon and Nebraska Avenues.

Tuesday, October 7, 1969 - Germantown

At 9:50 a.m. I presided over Regulatory Information Meeting 369 (notes attached).

At 10:50 a.m. I presided over Information Meeting 949 (notes attached). We discussed the reply to the letters from Senator Allen Ellender, in



THE VICE PRESIDENT
WASHINGTON

October 6, 1969

The Honorable Glenn T. Seaborg
Chairman
Atomic Energy Commission
Washington, D. C. 20545

Dear Doctor Seaborg:

The President, in his May 19 memorandum, directed the Marine Sciences Council to review substantive program proposals of the Stratton Commission and to encourage further improvement of inter-agency coordination. In the same memorandum, the President advised me that the reorganization proposed by the Stratton Commission needed to be carefully examined in the broader context of Federal organization, and that the proposal would be evaluated by his Advisory Council on Executive Organization headed by Mr. Roy Ash.

Since that time, the President has expressed an interest in developing interim program proposals that will govern the scope and direction of our oceanographic research efforts for the next few years. The long-run development of a national oceanographic program has been urged by several independent studies, including the Stratton Commission, and by the oceanographic community as a whole. The proposals by these various groups have merit and should receive serious administration consideration for the future. For the near-term, however, certain constraints must be recognized in planning the various segments of our oceanographic program:

- Current budgetary limitations must be recognized.
- Tasks assigned must be accomplished in the next few years.
- Results should be highly visible with direct scientific or ecological benefits.

With these criteria in mind, the following programs are proposed:

1. The initiation of programs in areas where marine science and technology can produce useful information or direct benefits, including:

- (a) For coastal zone management, the creation of State management authorities and the initiation of a pilot study of lake restoration.
- (b) The establishment of coastal laboratories, employing and consolidating existing capabilities wherever possible.
- (c) Participation in the International Decade of Ocean Exploration, with emphasis on environmental quality, environmental forecasting, buoy development, and data sharing.
- (d) A study of Arctic ecology.

2. Strengthen the Administration's direction and coordination of the oceanographic effort by assigning to specific departments or agencies responsibility for major segments of the program; e.g., assigning responsibility for the Decade to NSF; environmental observation and prediction activities to ESSA; identification and solution of the estuarine and coastal zone problems to Interior.

Funding above current levels would be provided for the program elements listed.

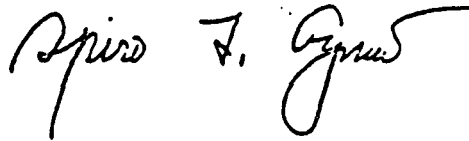
Since our last Marine Council meeting of May 23, several task groups in the areas of coastal zone management, national laboratories and the International Decade have been at work developing possible programs. Their findings will be utilized in structuring the approved programs.

In view of the small amount of time remaining to develop programs to present for the Fiscal Year 1971 budget review, I am recommending that this letter constitute an agenda of marine sciences initiatives for the Administration.

I would hope to have your concurrence by Friday, October 10 in order that an announcement can be made shortly. Development of specific details for these programs will be carried on concurrently with the budget analysis.

Your cooperation in this matter will be appreciated.

Sincerely,

A handwritten signature in cursive script, reading "Spiro T. Gyros". The signature is written in dark ink and is positioned below the typed name "Spiro T. Gyros".

136. Cond on ~~Jan~~ 10/11/69
by USA and USSR.

October 7, 1969

DRAFT TREATY ON THE PROHIBITION OF THE EMPLACEMENT
OF NUCLEAR WEAPONS AND OTHER WEAPONS OF MASS
DESTRUCTION ON THE SEABED AND THE OCEAN FLOOR
AND IN THE SUBSOIL THEREOF

The States Parties to this Treaty,

Recognizing the common interest of mankind in the progress
of the exploration and use of the seabed and the ocean floor for
peaceful purposes,

Considering that the prevention of a nuclear arms race on
the seabed and the ocean floor serves the interests of main-
taining world peace, reduces international tensions, and
strengthens friendly relations among States,

Convinced that this Treaty constitutes a step towards the
exclusion of the seabed, the ocean floor and the subsoil thereof
from the arms race and determined to continue negotiations
concerning further measures leading to this end,

Convinced that this Treaty constitutes a step towards a
treaty on general and complete disarmament under strict and
effective international control, and determined to continue
negotiations to this end,

Convinced that this Treaty will further the purposes and principles of the Charter of the United Nations, in a manner consistent with the principles of international law and without infringing the freedoms of the high seas,

Have agreed as follows:

ARTICLE I

1. The States Parties to this Treaty undertake not to implant or emplace on the seabed and the ocean floor and in the subsoil thereof beyond the maximum contiguous zone provided for in the 1958 Geneva Convention on the Territorial Sea and the Contiguous Zone any objects with nuclear weapons or any other types of weapons of mass destruction, as well as structures, launching installations or any other facilities specifically designed for storing, testing or using such weapons.

2. The States Parties to this Treaty undertake not to assist, encourage or induce any State to commit actions prohibited by this Treaty and not to participate in any other way in such actions.

ARTICLE II

1. For the purpose of this Treaty the outer limit of the contiguous zone referred to in Article I shall be measured in accordance with the provisions of Section II of the 1958 Geneva Convention on the Territorial Sea and the Contiguous Zone and in accordance with international law.

2. Nothing in this Treaty shall be interpreted as supporting or prejudicing the position of any State Party with respect to rights or claims which such State Party may assert, or with respect to recognition or nonrecognition of rights or claims asserted by any other State, related to waters off its coasts, or to the seabed and the ocean floor.

ARTICLE III

1. In order to promote the objectives and ensure the observance of the provisions of this Treaty, the States Parties to the Treaty shall have the right to verify the activities of other States Parties to the Treaty on the seabed and the ocean floor and in the subsoil thereof beyond the maximum contiguous zone, referred to in Article II, if these activities raise doubts concerning the fulfillment of the obligations assumed under this

Treaty, without interfering with such activities or otherwise infringing rights recognized under international law, including the freedoms of the high seas.

2. The right of verification recognized by the States Parties in paragraph 1 of this Article may be exercised by any State Party using its own means or with the assistance of any other State Party.

3. The States Parties to the Treaty undertake to consult and to cooperate with a view to removing doubts concerning the fulfillment of the obligations assumed under this Treaty.

ARTICLE IV

Any State Party to the Treaty may propose amendments to this Treaty. Amendments must be approved by a majority of the votes of all the States Parties to the Treaty, including those of all the States Parties to this Treaty possessing nuclear weapons, and shall enter into force for each State Party to the Treaty accepting such amendments upon their acceptance by a majority of the States Parties to the Treaty, including the States which possess nuclear weapons and are Parties to this Treaty. Thereafter the amendments shall enter into force for any other Party to the Treaty after it has accepted such amendments.

ARTICLE V

Each Party to this Treaty shall in exercising its national sovereignty have the right to withdraw from this Treaty if it decides that extraordinary events related to the subject matter of this Treaty have jeopardized the supreme interests of its Country. It shall give notice of such withdrawal to all other Parties to the Treaty and to the United Nations Security Council three months in advance. Such notice shall include a statement of the extraordinary events it considers to have jeopardized its supreme interests.

ARTICLE VI

1. This Treaty shall be open for signature to all States. Any State which does not sign the Treaty before its entry into force in accordance with paragraph 3 of this Article may accede to it at any time.

2. This Treaty shall be subject to ratification by signatory States. Instruments of ratification and of accession shall be deposited with the Governments of _____, which are hereby designated the Depositary Governments.

3. This Treaty shall enter into force after the deposit of instruments of ratification by twenty-two Governments, including the Governments designated as Depositary Governments of this Treaty.

4. For States whose instruments of ratification or accession are deposited after the entry into force of this Treaty it shall enter into force on the date of the deposit of their instruments of ratification or accession.

5. The Depositary Governments shall forthwith notify the Governments of all States signatory and acceding to this Treaty of the date of each signature, of the date of deposit of each instrument of ratification or of accession, of the date of the entry into force of this Treaty, and of the receipt of other notices.

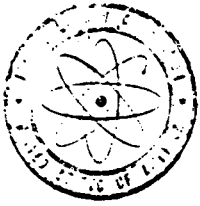
6. This Treaty shall be registered by the Depositary Governments pursuant to Article 102 of the Charter of the United Nations.

ARTICLE VII

This Treaty, the English, Russian, French, Spanish and Chinese texts of which are equally authentic, shall be deposited in the archives of the Depositary Governments. Duly certified copies of this Treaty shall be transmitted by the Depositary Governments to the Governments of the States signatory and acceding thereto.

In witness whereof the undersigned, being duly authorized thereto, have signed this Treaty.

Done in _____ at _____ this
_____ day of _____.



UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20548

ENCL. BY DOE
NOV 86

October 7, 1969

REGULATORY INFORMATION MEETING 369

9:50 a. m. , Tuesday, October 7, 1969, Room A-458, Germantown Headquarters

1. September 25 Letter from Sherman Knapp, AIF, re Lack of Interest on the Part of AEC Regulatory Staff to Industry Efforts to Assist in the Development of Regulatory Criteria

Staff will prepare a draft response and the matter will be discussed with the AIF at the October 16 meeting. (ADRA)

2. September 10 Letter from Gene A. Blanc, Reid Industries, Inc., re Siting of Nuclear Power Plants

Noted.

3. Statement on Sternglass Article in October 1 Letter Report of the 130th Meeting of the Advisory Committee for Biology and Medicine

Noted.

4. October 3 Letter from Merrill Eisenbud, Environmental Protection Administration, re Minnesota Symposium on Nuclear Power and the Public, October 10-11, 1969

Staff will call Mr. Eisenbud. (ADRA)

5. Dr. Buck's September 25 Memorandum re Comments on Staff Discussion Paper on Early Hearings on Site Suitability

Noted for later discussion. (ADRA-SECY)

6. Mr. Price's September 25 Memorandum re Possible Overexposure of Technician - Johns Hopkins Medical Institution, Baltimore, Maryland

Noted.

7. September 15 Article from Rutland Herald re "Governor Davis Concedes Format of AEC Hearings made Session Self-Defeating"

Noted.

8. Mr. Price's August 18 Memorandum re ACRS Report on Dresden Nuclear Power Station Unit 2

To be reviewed by Commissioner Thompson. (Spurgeon-SECY)

9. Mr. Price's August 18 Memorandum re Proposed Revision of Minnesota Health Department Regulation on Ionizing Radiation

Comments on the draft rules need not be sent at this time. (ADRA)

10. Agenda for Commissioners' October 9, 1969, Meeting with the Advisory Committee on Reactor Safeguards

Approved. An outline on Topic 1 will be circulated. (ADRA-SECY)

11. October 9 Meeting with Members of the Minnesota-Wisconsin Delegation

The AEC statement is approved with revisions and Commissioners Ramey, Johnson and Larson will attend the meeting. (AGM-ADRA-Congr. -SECY)

W. B. McCool
Secretary

10:50 a. m.

(Decisional items are subject to comments from Commissioners Thompson and Larson.)

PRESENT:

COMMISSIONERS:

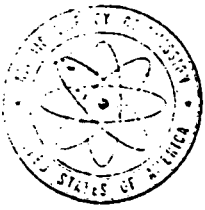
Chairman Seaborg
Commissioner Ramey
Commissioner Johnson

STAFF:

Mr. Price
Mr. Morris
Mr. Henderson
Mr. Hennessey.
Mr. Rogers
Mr. Bloom
Mr. Spurgeon
Mr. Wells
Mr. McCool

DISTRIBUTION:

Commissioners
Dir/Regulation
General Manager
General Counsel



UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

UNCL. BY DOE
NOV 86

UNCL. BY DOE
NOV 86

COPY NO. 3
October 7, 1969

INFORMATION MEETING 949

10:50 a. m., Tuesday, October 7, 1969, Room A-458, Germantown Headquarters

1. October 9 Meeting with Members of the Minnesota-Wisconsin Delegation

The AEC statement is approved with revisions and Commissioners' Ramey, Johnson, and Larson will attend the meeting. (AGM-ADRA-Congr. -SECY)

2. Commissioners' Executive Session Meeting - 11:30 a. m. - 4:00 p. m.,
Wednesday, October 15, 1969

Scheduled. (SECY)

3. September 25 Letter from Robert Seamans, Department of Air Force, re
Report "DOD Space Programs, Options, Recommendations" for the
President's Space Task Group

To be circulated to the Commissioners. (Bloom)

4. September 24 Letter from F. Leo Wright, Westinghouse Electric
Corporation, re Invitation to Attend the Inauguration of New Waltz Mill
LMFBR Facilities on October 17, 1969

Commissioner Johnson will attend. (SECY)

5. JCAE Environmental Hearings October 28, 29, 30, November 4, 5, and 6

Proposed testimony is in preparation.

6. October 1 Letter from Mr. Mayo, Director, BOB, re AEC's Expenditures for the Development of Advanced Civilian Power Reactors

A draft response will be scheduled for consideration. (OC-RDT-SECY)

7. Controller's October 2 Memorandum re House Appropriations Committee Markup - FY 1970 Budget

Recommended appeal items are approved. (OC)

8. AEC 1318/14 - Senator Ellender's Correspondence on Environmental Matters

The letter to Senator Ellender is approved with a change. The Chairman will call Senator Ellender and requested the Commissioners and staff discuss this matter with designated Senators. (Bloom-RDT-Cong.)

9. Dr. Henry A. Kissinger's October 1, 1969, Memorandum for the Secretary of Defense re Joint Government Consultations

Noted. (GM-Bloom)

10. AEC 20/224 - Reduction in Uranium Deliveries - United Nuclear Corporation Proposal
(See also AEC 20/223 - Meeting with Congressman Aspinall re Reduction in Uranium Delivery)

Approved. (RM)

11. AEC 459/103 - Analysis of Proposed Uranium Enrichment Department; and, AEC 459/104 - Meeting with Executive Office Representatives Concerning Uranium Enriching Department

Noted. (AGMP&P)

12. Oral Report on the Milrow Event

13. AEC 1309/15 - Execution Data for a Portion of the Mandrel II Events

Approved. (AGMMA)

14. AEC 1320 - Project Harpin

The staff recommendation is approved. (AGMMA)

15. AEC 549/30 - Publication of Information on Medium Powered Reactor Experiment (MPRE) Program
(See also AEC 549/31)

Approved. (C)
16. AEC 1000/144 - SNAP-27 Public Information Documents

Noted. (PI)
17. AEC 280/53 - Parking Facilities - Germantown Headquarters

Noted. (AGMA)
18. Pending Contractual Matters Report No. 328

Noted. (PAR)
19. NTS Events (See General Giller's September 24 Memorandum)

Noted. (AGMMA)
20. Location of May 1970 AIF Meeting (See Mr. McColley's October 2 Memorandum)

Noted. (SECY-IP)
21. GAC Comment on Projected Uranium Supply

W. B. McCool
Secretary

12:30 p. m.

(Decisional items are subject to comments from Commissioners Thompson and Larson.)

PRESENT:

COMMISSIONERS:

Chairman Seaborg
Commissioner Ramey
Commissioner Johnson

STAFF:

Mr. Hollingsworth
Mr. Hennessey
Mr. Bloom
Mr. Spurgeon
Mr. Kull
Mr. Abbadessa
Mr. McCool
Mr. Harris*
Mr. Fouchard*
Mr. Shaw*
Mr. Quinn*
Mr. Faulkner*
Gen. Giller*
Mr. Gomes*
Mr. Marshall*
Mr. Gaughran*
Mr. Newby*

DISTRIBUTION:

Commissioner
General Manager
General Counsel
Secretary

*Attendance by Topic (s)

ALLEN J. ELLENDER, CHAIRMAN
ALLEN J. ELLENDER, LA.
N. L. MCCLELLAN, ARK.
MIRLN G. MAGNUSON, WASH.
ESSARD L. MOLLAND, FLA.
JOHN G. STENNIS, MISS.
JOHN O. PASTORE, R.I.
ALAN BIBLE, NEV.
ROBERT C. BYRD, W. VA.
CALE W. MCGEE, WYO.
MIKE MAHSFIELD, MONT.
WILLIAM PROXMIRE, WIS.
RALPH YARBOROUGH, TEX.
JOSEPH M. MONTOYA, N. MEX.

MILTON R. YOUNG, N. DAK.
KARL E. MUNDT, S. DAK.
MARGARET CHASE SMITH, MAINE
ROMAN L. HRUSKA, NEBR.
GORDON ALLOTT, COLO.
NORRIS COTTON, N.H.
CLIFFORD P. CASE, N.J.
HIRAM L. FONG, HAWAII
J. CALES BOGGS, DEL.
JAMES S. PEARSON, KANS.

United States Senate

COMMITTEE ON APPROPRIATIONS

WASHINGTON, D.C. 20510

ENCL. BY DGE
MBV 86

THOMAS J. SCOTT, CHIEF CLERK
WM. W. WOODRUFF, COUNSEL

September 20, 1969

Dr. Glenn T. Seaborg
Chairman
Atomic Energy Commission
Washington, D. C. 20545

Dear Dr. Seaborg:

As you know, there is a growing public concern over the possible threat to our environment from the rapidly expanding and projected peaceful uses of atomic energy for power and other purposes. I have had letters and calls to my office from several groups and individuals since the Public Works appropriations hearings were concluded.

There is enclosed a copy of a letter from Mr. Larry Bogart expressing concern over the possible environmental effects of both the Liquid Metal Fast-Breeder Reactor and the light-water reactors. He refers particularly to the views of Dr. Edward Teller and a group of NASA scientists from the Lewis Space Center contained in Combustion for July 1969.

I would appreciate your views on the problem, with particular emphasis on the article in Combustion. I am certain that this question will be raised either in Committee or on the Floor when the bill is up for consideration by the Senate.

Sincerely,


ALLEN J. ELLENDER, Chairman
Subcommittee on Public Works

Enclosure

AJE/Bdw

MILTON R. YOUNG, N. DAK.
KARL E. MUNDY, S. DAK.
MARGARET CHASE SMITH, MAINE
ROMAN L. HRUSKA, NEBR.
GORDON ALLOTT, COLO.
MORRIS COTTON, N.H.
CLIFFORD P. CASE, N.J.
MIRAM L. FONG, HAWAII
J. CALLED BOGGS, DEL.
JAMES B. PEARSON, KANS.

MILTON R. YOUNG, N. DAK.
KARL E. MUNDY, S. DAK.
MARGARET CHASE SMITH, MAINE
ROMAN L. HRUSKA, NEBR.
GORDON ALLOTT, COLO.
MORRIS COTTON, N.H.
CLIFFORD P. CASE, N.J.
MIRAM L. FONG, HAWAII
J. CALLED BOGGS, DEL.
JAMES B. PEARSON, KANS.

United States Senate

COMMITTEE ON APPROPRIATIONS

WASHINGTON, D.C. 20510

UNCL. BY DOE
NOV 86

THOMAS J. SCOTT, CHIEF CLERK
WM. W. WOODRUFF, COUNSEL

September 26, 1969

Dr. Glenn T. Seaborg
Chairman
Atomic Energy Commission
Washington, D. C. 20545

Dear Dr. Seaborg:

Reference is made to my letter addressed to you on September 20, 1969 with which I enclosed copy of a letter from Mr. Larry Bogart expressing his concern over the possible environmental effects of both the Liquid Metal Fast-Breeder and the Light Water Reactors.

Yesterday, Mr. Bogart called at my office and discussed the matter in quite some detail. I am enclosing a copy of a list of questions he raised at that time. I would appreciate as specific an answer as possible to these questions.

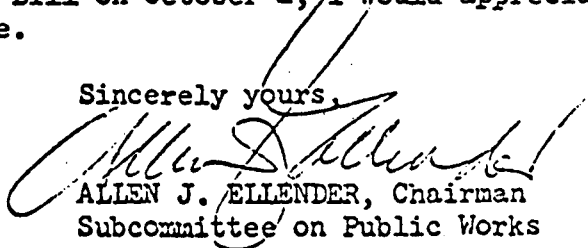
With respect to question number 2, I would also like to know how many reactors have been placed in operation; how many have been shut down, and the reason they were shut down.

In connection with question number 3, I would also like information with respect to the accident at the Fermi reactor in Michigan, and your evaluation of the possibility of a more serious accident at that installation. Has this reactor been started up again, and what are your plans for its future operation?

When you speak of permissible low levels of radiation, what types of isotopes or other radiation are you referring to, and what is the life of the radiation? Could any of these forms of radiation released at low levels be absorbed by plant, marine, or animal life and build up a higher concentration which, over a period of time, would be harmful to these organisms?

Inasmuch as the House Subcommittee on Public Works expects to report the 1970 Appropriations Bill on October 2, I would appreciate as prompt an answer as possible.

Sincerely yours,


ALLEN J. ELLENDER, Chairman
Subcommittee on Public Works

Enclosure

KJB/dw

which he questions our reactor development program on the basis of erroneous advice that he received from Larry Bogart of the Conservation Center for Westchester; since Ellender is on our Senate Appropriations Subcommittee, he could have a serious influence on our FY 1971 budget if we don't succeed in answering the questions that he has raised. We discussed the status of the analysis of the plan described to me by Mr. Flanigan in my meeting with him on September 12, for operating our uranium enrichment facilities as a department in the AEC in which a revolving fund of receipts from toll enriching is used to pay the cost of the operation of the enrichment plants; an attempt will be made to keep the costs within the cost ceiling of \$30 per kilogram of enrichment work.

We discussed the proposal from the Department of the Army to dispose of their nerve gas containers through the use of an underground nuclear explosion in Nevada and decided that we will decline to undertake this task on the basis of the adverse impact it would have on a public relations system that is already very difficult. We decided on the basis of the opinion of the uranium industry that we wouldn't solicit proposals for further reductions in delivery of uranium concentrates in order to alleviate the pressure on the FY 1971 budget as we had previously planned; we may accept one reduction in uranium delivery proposed by the United Nuclear Corporation because they would defer mining the uranium so that there would not be an addition of uranium to an already soft market. We discussed the House Appropriations Committee markup of our FY 1970 budget and decided to appeal a shutdown of the K reactor at Hanford, \$25 million out of the \$32 million reduction against the construction budget of the 200 Bev Accelerator and \$7.5 million against the reduction in capital equipment.

I received a copy of a letter from Henry A. Kissinger to the Secretary of Defense (copy attached) which states that the President would like the Secretary to cooperate fully in developing recommendations for honoring the President's commitment made to the Dutch last May to study the possibility of closer cooperation in the field of nuclear propulsion.

At 12:45 p.m. I had lunch in the cafeteria with Julie Rubin and Bob Hollingsworth. I emphasized to the General Manager the problem of a possible cost overrun with the FFTF and Fred Albaugh's concern that this is the result of Milt Shaw's insistence on including more facilities in the reactor than can be accommodated within the budget. I emphasized again the need for recognizing the problems that Shaw is having with so many people in the field and the need for an associate director in his division to help in this situation. We also discussed the question of the STURTEVANT Plowshare shot and agreed that the climate of public opinion is such that it would not be sensible to try to conduct this as an excavation shot.

At 2:30 p.m. I presided over Commission Meeting 2394 (action summary attached).

I sent my biweekly status report to the White House (copy attached).

I sent my personal report to President Nixon covering my trip to Europe from September 13, 1969 through October 3, 1969 (copy attached). I also sent copies to Lee DuBridge and Secretary of State Rogers

October 1, 1969

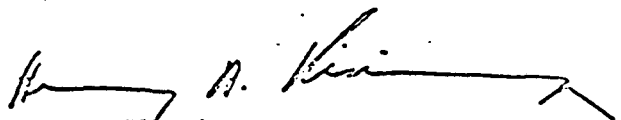
MEMORANDUM FOR THE SECRETARY OF DEFENSE

SUBJECT: Possible US Consultation with the Dutch
on Nuclear Propulsion

At the time of the visit of Dutch Prime Minister De Jong and Foreign Minister Luns last May, the President agreed "to study (with the Dutch) the possibility of closer cooperation between our two countries in the field of nuclear propulsion." Both sides understood this to mean exploration of the very limited ways in which we might assist the Dutch in their preliminary study of nuclear submarine propulsion.

The working group formed by the Under Secretaries Committee to review possible ways in which we might cooperate with the Dutch, within existing legislative guidelines, has so far been unable to reach agreement.

The President would like you to ensure that the Department of Defense cooperates fully in developing recommendations for honoring the commitment the President made to the Dutch last May.



Henry A. Kissinger

Copies to:
Secretary of State
← Chairman, Atomic
Energy Commission



UNITED STATES
 ATOMIC ENERGY COMMISSION
 WASHINGTON, D.C. 20545

October 7, 1969

Approved _____

RTH

Date _____

UNCL. BY DOE
 NOV 86

R. E. Hollingsworth, General Manager

ACTION SUMMARY OF MEETING 2394, TUESDAY, OCTOBER 7, 1969, 2:45 P.M.,
 ROOM A-410, GERMANTOWN, MARYLAND

SECURITY

Commission Business

1. Minutes of Meetings 2380, 2382 and 2383
 Approved, as revised. (SECY)
2. Minutes of Meeting 2381
 Deferred. To be revised. (SECY)
3. SEC 549/29 - Declassification of Certain Isotopic Heat Source Information
 Approved. (C)
4. SEC 187/28 - Additional Land Requirements at Sandia Livermore Laboratory
 Approved, as revised.
 Commissioner Johnson requested staff establish a reasonable dollar limit in its negotiations with the present property owners, with staff reporting back to the Commission if condemnation proceedings are required.
 Commissioner Perry requested staff review the public relations implications of the sale of the property.
 (CONS)
5. AEC 922/2 - Venezuela: Amendment to Agreement for Cooperation
 Approved. (ADMIA)
6. Senate Appropriations Committee Hearings, 2:00 P.M., October 15, 1969
7. Commissioners' Executive Session Meeting - 11:30 a.m. - 1:30 p.m., Thursday, October 15, 1969
 Scheduled. (SECY)

Original signed
 W. B. McCool

W. B. McCool
 Secretary

cc:
 Commissioners

UNCL. BY DOE
NOV 86

AEC BIWEEKLY STATUS REPORT FOR OCTOBER 7, 1969

1. The U. S. delegation to the IAEA General Conference in Vienna, headed by Chairman Seaborg, has returned to this country with most of its objectives accomplished. One of the highlights of the Conference was the proposal by Dr. Seaborg to hold an international conference on the environmental effects of nuclear power plants. He offered to host the conference in the United States. The proposal received general acceptance.

Within the next few days, Chairman Seaborg will be submitting a special report to the President which covers the major events of his European trip.

2. The MILROW underground nuclear weapons test was conducted successfully and safely on Amchitka Island at 6:06 p.m. EDT, October 2. There was no significant damage to the ecology of the area and no earthquakes or tsunamis were induced. Likewise, the JORUM underground test was conducted without incident on September 16, 1969, at the Nevada Test Site.
3. AEC will loan Romania a cobalt-60 gamma irradiation facility under an agreement signed by Chairman Seaborg and Romanian Government officials in Bucharest on October 1.
4. An AEC Atoms-in-Action Nuclear Science Demonstration Center opened in Bucharest, Romania, on October 1 for a 30-day exhibit. Speakers at the opening ceremonies included Chairman Seaborg, U.S. Ambassador Meeker, and the President of the Romanian State Committee for Nuclear Energy, Dr. Horia Hulubei. This exhibit combines lectures and demonstrations to show the Romanian public the latest peaceful applications of nuclear energy, serves as a laboratory for experiments by Romanian scientists and university students, and provides a training institute for several thousand college and high school students and teachers.
5. Another Atoms-in-Action Demonstration Center will open in Sao Paulo, Brazil, on October 17, with Commissioner Thompson participating. Since 1960, Atoms-in-Action Centers have been visited by more than seven million people overseas.

6. Preliminary evaluations of the underground nuclear detonation for Project Rulison indicate the explosive performed as expected, yielding about 40 kilotons underground without releasing radioactivity into the environment aboveground. (Rulison is a Plowshare experiment conducted in Colorado on September 10 to investigate the feasibility of using underground nuclear explosives to stimulate the flow of natural gas locked in underground rock formations.) Engineers connected with the project are encouraged by pressure data indicating that the explosion has stimulated the gas reservoir. However, many months of gas-production testing will be required to determine the total success of the project.
7. In an effort to promote minority-owned-and-operated business in Chicago, representatives from the AEC, Argonne National Laboratory, and the National Accelerator Laboratory participated in the Chicago Business Opportunity Fair, which was held on September 26 and 27 at the International Amphitheatre. The representatives explained what business prospects are available from the AEC and its large science research centers. The Fair brought together inner-city businessmen (mostly black) with business and Government organizations.
8. The Joint Committee on Atomic Energy tentatively plans to begin hearings on October 26 concerning the environmental effects of all types of electric generating facilities. Initial hearings are planned for October 29-30 and November 4-6 to hear witnesses from Government agencies with responsibilities in air and water quality and other environmental aspects. Additional sessions will be scheduled to hear representatives of private industry and the general public.
9. The Commission testified before the Senate Foreign Relations Committee on September 29 concerning S. J. Res. 155 that would provide for a study of the international aspects of underground nuclear weapon testing. The principal emphasis was on concern over possible effects of the calibration test at Amchitka, which was conducted three days later.
10. AEC testified on October 3 at hearings on amending the Solid Waste Disposal Act (S. 2005) by the Subcommittee on Air and Water Pollution of the Senate Committee on Public Works, and also on proposed amendments to the Fish and Wildlife Coordination Act by the Subcommittee on Fisheries and Wildlife of the House Committee on Merchant Marine and Fisheries.

11. Representatives of foreign governments who plan to visit AEC during October include the Chairman of Australia's Atomic Energy Commission, Sir Philip Baxter, (on the 16th) and the Chairman of Brazil's Nuclear Energy Commission, Professor Uriel da Costa Ribeiro (during a visit to the U.S. from October 24-31).
12. U.S. sources will lend \$1 million to Japan's atomic energy agency to help finance U.S. services in providing the second core of nuclear fuel for a power plant at Tokai. The Export-Import Bank and the Manufacturers Hanover Trust Co. of New York will each lend \$5 million.
13. The U.S. Maritime Administrator and his key staff were briefed by AEC legal and international affairs specialists before the Administrator's visit to Japan on September 24-28. Among the topics planned for discussion during this visit were the entry of the Savannah (the U.S. nuclear-powered civilian merchant ship) into Japanese ports and technical cooperation involving the Savannah and the Mutsu (the Japanese nuclear-powered ship now being constructed).
14. A study of essential steps to encourage and support the export of nuclear power reactor systems abroad, prepared by a group of U.S. industries and financial institutions at the direction of the National Export Expansion Council, was approved on September 12 by the Council and forwarded to the Secretary of Commerce. The report emphasizes financing, fuel cycle, tariff and nontariff barrier problems, and tax incentives. It also underlines the importance of continuing availability of enrichment services and enriched fuels from the U.S.
15. A group from the Japanese Atomic Industrial Forum (a trade association) plans to visit AEC Headquarters on October 13. The group is making an international tour to study problems in transporting nuclear fuel used in power reactors from the reactors to plants where it is reprocessed before being used again as reactor fuel. They will also visit the United Kingdom and other European countries.

UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

UNCL. BY DOE
MAY 86

OFFICE OF THE CHAIRMAN

CONFIDENTIAL 7 1959

The President
The White House

Dear Mr. President:

I am writing to report on a trip to Europe, from which I have just returned, during which I served as the United States representative to the thirteenth General Conference of the International Atomic Energy Agency, held at the Agency's Headquarters in Vienna. During this trip, I also visited Sweden, Switzerland, Czechoslovakia, the Soviet Union, Romania, Hungary, and Portugal.

Although I had visited the Soviet Union on two earlier occasions, and made a brief visit to Poland in 1957, this was my first extensive visit to other Eastern European countries.

In each of these Eastern European countries, I saw many indications of their strong desire to achieve the maximum possible independence from the Soviet Union and closer relations with the United States. The attitude in these countries made a deep impression on me, and, in my view, represents a factor of tremendous importance and value to the United States.

My trip was occasioned by four special events - the thirteenth General Conference of the IAEA to which I have already referred, a symposium convened in Stockholm by the Nobel Foundation on the role of science in society, the 100th anniversary commemoration of the formulation of the periodic system of the elements by Mendeleev in Leningrad to which I received a special invitation (and which you encouraged me to attend), and the opening in Bucharest of the Atomic Energy Commission's "Atoms-in-Action" exhibit, the first such exhibit ever held in any Eastern European country. In addition to my participation in these events, I met in each of the countries visited with senior scientists and science officials, and in several instances with top political leaders, including the retiring Prime Minister of Sweden, Mr. Erlander, and President Ceausescu of Romania.

My meeting with President Ceausescu, which was scheduled for twenty minutes, lasted for more than an hour and a half and covered a broad range of current issues. The President recalled enthusiastically your recent visit there.

In a number of countries, I presented scientific lectures on the transuranium elements, visited atomic energy installations, and was interviewed by press and television. The press coverage of my visit to Bucharest was especially extensive, and included what I understand to be an unusual first page resume of my meeting with President Ceausescu.

In the following paragraphs, I have summarized the more significant events of each of my stops.

Sweden

The Nobel Foundation symposium on "The Place of Value in a World of Facts" was attended by 45 invited scientific leaders from all over the world, including many who have been critical of United States policies. The conference sessions were closed, but were followed by daily press briefings. In addition to the presentation of a paper, which I am enclosing, I was frequently called on to defend U.S. policies both in the conference sessions and in the outside press briefings. My participation along with that of some other sympathetic Westerners helped avoid the adoption by the conference of resolutions criticizing U.S. policies and actions.

In my discussion with Prime Minister Erlander, I expressed our hope that Sweden, as a leading neutral nation, would complete its ratification of the Nonproliferation Treaty as an example to others. The Prime Minister expressed interest in the view that Swedish moral leadership could exert a significant influence on the actions of some other nations, and requested that the matter of accelerating Sweden's ratification be reviewed. The Prime Minister also agreed to my request that Sweden initiate trilateral negotiations with the IAEA and the United States for the transfer to the IAEA of safeguards over nuclear materials which we supply for Sweden's peaceful nuclear program. These negotiations have been delayed for some time, despite Sweden's agreement in principle to such a transfer, because of Swedish concern that IAEA safeguards would interfere with its nuclear trade with the Euratom countries.

Thirteenth General Conference of the International Atomic Energy Agency

The Thirteenth General Conference of the IAEA demonstrated once again the special ability of the international organization to conduct its business with little or no interference of extraneous political questions. All United States objectives in the conference were achieved, including approval of the Agency's program and budget for the forthcoming year, the confirmation of Dr. Sigvard Erlund of Sweden for another four-year term as Director General, and the approval of United States resolutions dealing with the enlargement of the Agency's Board of Governors, and the Agency's role in the field of peaceful nuclear explosives under the Nonproliferation Treaty.

Throughout the conference, I observed once again the universal respect and esteem for the United States representative, Ambassador Henry D. Smyth.

While in Vienna, I held discussions with a number of atomic energy officials from around the world. Of particular significance was my conversation with Professor I. D. Morozkov, Soviet representative to the IAEA and Vice Chairman of the Soviet State Committee for Peaceful Uses of Atomic Energy. Our discussion was devoted mainly to the possible removal of the Soviet-American talks on the peaceful uses of nuclear explosives. One meeting on this subject was held in April of this year, which, although disappointing in some respects, served to confirm our belief in the existence of an active and serious Soviet "Plovsnare" program.

Professor Morozkov stated that Soviet ability to cooperate in making the peaceful uses of nuclear explosives available to other nations under the auspices of the IAEA was dependent on the resumption of the U.S.-Soviet talks on this subject. He indicated a preference to hold these talks in Moscow or Washington rather than in Vienna. I reaffirmed our agreement in principle that such talks were desirable, but made no commitments as to when or where these could take place.

It was clear that the Soviets are concerned with the same problem that we have faced; that is, the restrictions placed on the development and application of Plovsnare excavation technology by the current strict interpretation of the Limited Test Ban Treaty. They regard agreement with

the U.S. on means to relieve those restrictions as an essential step toward broader international agreement.

In our discussion, I again expressed the hope that the Soviets would emulate, even if only on a limited basis, our actions in placing some peaceful nuclear facilities under IAEA safeguards. Professor Morokhov indicated that while they continue to disagree as a matter of principle to placing any of their facilities under formal IAEA safeguards, serious consideration might be given to our suggestion of at least operating some Soviet facilities to the IAEA for safeguards training and development purposes. Such a step, if taken, would, I believe, constitute important progress in Soviet attitudes toward the acceptance of controls in their own territory, and would be of great assistance in overcoming the objection of many countries to IAEA controls under the Nonproliferation Treaty on the grounds that they are discriminatory.

Switzerland

During a brief visit for change of planes in Zurich, I conferred with Professor Urs Hochstrasser, the senior science official of the Swiss Government, and several of his colleagues. Professor Hochstrasser noted that Switzerland, which has largely depended on hydroelectric power in the past, is now turning to nuclear power for all of its new needs for electrical energy. In addition to its economic advantage, nuclear power is preferred by the Swiss authorities and public because it avoids the atmospheric pollution of coal or oil burning plants, and the destruction of scenic river valleys that would result from new hydroelectric plants.

It is of interest that the Swiss hold this attitude toward nuclear power despite the fact that Switzerland experienced several months ago one of the few reactor incidents severe enough to result in permanent disabling of the reactor. The Swiss regard this incident, which involved a small experimental reactor, a reassuring demonstration of the safety of nuclear reactors, since all emergency safety systems functioned properly and damage was confined to the reactor proper with no release of radioactivity outside the containment structure.

Czechoslovakia

My visit to Czechoslovakia resulted from an invitation issued more than a year ago, before the Soviet invasion, by Professor Jan Neumann, Chairman of the Czechoslovak Nuclear Energy Committee. The Soviet invasion intervened before I was able to schedule this visit, but the invitation was generously reissued shortly before I started on my recently completed trip. As a consequence, a low key visit involving only technical talks and visits was arranged. The visit to Czechoslovakia was the most difficult and complex of our entire trip.

The visit took place on September 19-22, immediately before the recent purge began. In several private conversations, Professor Neumann indicated their strong hope that cooperation with the United States could be continued and expanded. The Czechs were especially anxious to acquire heavy water production technology from the U.S. so that they could establish a nuclear power complex, based on heavy water, natural uranium reactors, that would free them from their current dependence on the Soviet Union for fossil fuel and from dependence in the future on enriched uranium from the Soviet Union. The U.S. has withheld a response to the Czech request for assistance in heavy water production technology which was originally made before the Soviet invasion.

In describing their interest in this form of assistance, Professor Neumann and his colleagues referred repeatedly to their desire to achieve a measure of independence, but of the need to be "realistic". However, they claimed that it would be possible for them to accept this form of assistance from the U.S. without incurring Soviet hostility.

My response was that the U.S. had not ruled out the possibility of licensing the export of this technology (which is being done in the case of Romania), but that, for reasons they could appreciate, we could not reach an affirmative conclusion at this time.

Several days later in Vienna, after the Czech purges had begun, we were informed by a reliable Canadian source that Professor Neumann had received word after our visit that Czechoslovakia will be required to purchase Soviet light water, enriched uranium power reactors, rather than pursuing their independent course of heavy water, natural uranium reactor development. This source described Professor Neumann as virtually in tears as a result of this news.

There were also poignant aspects to our visits to Czech nuclear energy facilities. We were taken on a tour of parts of the impressive Skoda works, which is responsible for the design and manufacture of the first Czech nuclear power station. We also visited the nuclear power station itself, in Bohunice, which has been under construction for nearly ten years.

The visits were entirely open and cordial. The Czechs are obviously justifiably proud of the Skoda works which, although not up to Western standards, is still a first-rate manufacturer of heavy machinery and electrical goods.

The reactor project, which has been under way for longer than any other similar project in the world, is more complex. Originally undertaken with extensive Soviet assistance, it has for several years (starting even before the Czech liberalization of 1968) been almost entirely a Czech undertaking, probably because work on the heavy water reactor concept was essentially abandoned in the Soviet Union, as it has been in the U.S. Although the Czechs have made substantial progress on their own in this difficult project, the project is clearly too ambitious and complex for their limited technical resources. It is my judgment that the reactor, which they now claim will be completed by the end of 1970, will probably ultimately be made to work, but only after more difficulties and delays than the Czechs now anticipate.

Czechoslovakia, in common with the other Eastern European countries, has a modest nuclear research center (Institute for Nuclear Research) built around a Soviet supplied research reactor. Our request to visit this center, located near Prague, was not accommodated, supposedly on grounds of lack of time. It is the judgment of our Embassy in Prague that this visit was not allowed because the center has been a focal point of liberal scientific resistance to the Soviet occupation. A member of the Czech nuclear energy staff later informed us that they had "done all they could" to arrange the visit.

Despite these disappointing developments there were still many indications, as of the time of our visit, of some degree of independence and a continuing spirit of resistance. As you know, Soviet troops and military vehicles in Czechoslovakia are kept well concealed, and we saw only two troop carriers during our visit, despite lengthy drives through the countryside in connection with our visits to nuclear installations. Pointed slogans for Dubcek were widespread, although they are quickly painted over.

Throughout our visit we had the feeling that the Czech officials whom we met were still making their sympathies and desires for closer ties with the West clear, although in a guarded and indirect manner.

Soviet Union

During my visit to the Soviet Union, I attended the 100th anniversary commemoration of Mendeleev's periodic system of the elements in Leningrad, where I delivered a lecture on the transuranium elements; visited the Joint Institute for Nuclear Research in Dubna, a first-class nuclear laboratory which is staffed by scientists from a number of Eastern European countries; and held discussions on our cooperative arrangement with Mr. A. M. Petrosyants, Chairman of the Soviet Union's State Committee on Peaceful Uses of Atomic Energy.

As discoverer of the periodic relationship of the elements, Mendeleev is an authentic hero of Russian science, and the conference organizers therefore attached considerable importance to my attendance, because of my role in extending and establishing the validity of the periodic table to a number of new man-made elements. An interesting sidelight of this is that the Russian scientists have always been extremely pleased by the fact that, as discoverers of element 101, we named the element mendelevium, in honor of the discoverer of the periodic table. We did this as long ago as 1955 at a time when the relations between the United States and the Soviet Union were somewhat cool. I believe these factors account for the unusually warm reception which I had at the conference.

At the Dubna laboratory, I had an extensive discussion with Professor G. N. Flerov, who claims to have discovered element 104, which he has named kurchatovium, after another famous Russian scientist. Professor Flerov's claim is doubted by a number of scientists, including Dr. A. Ghiorso who has continued my former work on the synthesis of new elements at the AEC's Lawrence Radiation Laboratory at Berkeley, and who is himself co-discoverer of elements 95 to 103. This disagreement has resulted in a friendly but lively scientific controversy.

My judgment, which was reinforced by my discussions with Professor Flerov, is that, while he and his group are doing competent and sophisticated work, their claim is probably not valid, and element 104 has in fact been first synthesized and identified by Dr. Ghiorso and his group.

It was interesting to observe that Professor Flerov's program on the synthesis of new elements involves the effort of more than 30 full-time scientists at Dubna, supported by more than a hundred technicians, and the efforts of a number of scientists at other Soviet institutions. Dr. Ghiorso's work, which is our only active program on new elements, has been gradually reduced to its present level of only four scientists, because of budgetary restraints.

My discussions with Chairman Petrosyants on cooperation under our Memorandum on Cooperation in Peaceful Uses of Atomic Energy were quite useful and constructive. Our current Memorandum, which is an addendum to the general agreement on scientific and cultural cooperation with the Soviet Union for 1969-1970, has not been extensively implemented since the Soviet invasion of Czechoslovakia, although our own restraints against cooperation were relaxed sometime ago.

Chairman Petrosyants went to some lengths to say that the political limitations on our current cooperation were not imposed by his Committee, and that the State Committee was anxious to increase our cooperation to the greatest extent feasible. He informed us of Soviet agreement with several rather long-pending U.S. proposals for scientific exchanges under the Memorandum.

He also strongly urged an exchange of delegations headed by himself and myself to take place next spring, to update the similar exchange held in 1963. In addition, he expressed the hope that our cooperation could be extended to "joint projects", a reference to the proposal which is of great interest both to U.S. and Soviet scientists that the U.S. undertake experiments at the successful new Soviet 70 BEV accelerator at Serpukhov, which will be the world's most powerful until completion of the U.S. 200 BEV machine at Batavia, Illinois. The proposed Serpukhov joint project would involve the assignment of several American scientists and the supply, perhaps on a loan basis, of an up-to-date U.S. computer. Similar "joint projects" at Serpukhov involving the French and CERN, the multi-nation European accelerator group, are already under way.

I advised Chairman Petrosyants that his proposal for an exchange of delegations at the Chairmanship level would be given prompt consideration, and that the possibility of a "joint project" at the Serpukhov accelerator was being studied, although it presented serious difficulties of both

financial and policy nature. While I did not indicate this to Petrosyants, we anticipate resistance on the part of the Joint Committee on Atomic Energy to such an arrangement.

In a discussion with Ambassador Dean, I was told that my discussion with Chairman Brezhnev, during my 1963 visit when Brezhnev held the position of president, was the last conversation of a non-communist American, either official or unofficial, with Brezhnev. If the exchange of visits proposed by Petrosyants for next spring takes place, it is possible that my previous acquaintance with Brezhnev could help lead to another conversation with him.

Hungary

Although our short visit to Hungary was essentially incidental, arising out of an unavoidable stopover during change of planes, it turned out to be an extremely useful and informative visit.

We made a brief visit to Hungary's nuclear research center (Central Physics Research Institute) which, like others in Eastern Europe, was built with Soviet assistance in the late 1950's, in imitation of President Eisenhower'sAtoms-for-Peace program. The center was surprisingly extensive, employing 1500 people, including 300 graduate scientists. Although built with Soviet help, the operation of the center is now entirely in the hands of Hungarians. The equipment, including the reactor, was intensively employed and the work there was clearly of a high order of scientific competence.

Despite its small size, Hungary, prior to World War II, produced a surprising number of top-flight scientists who, my colleagues in the United States, have made invaluable contributions to our own wartime and post-war atomic energy programs. These include, as you know, Dr. Edward Teller, Dr. Eugene Wigner, and the late Drs. Leo Szilard and John Von Neumann. The laboratory which I visited indicated that this scientific tradition, while undoubtedly seriously restricted, is not dead in Hungary.

In my brief discussions with Dr. Leonard Pál, Deputy Director of the laboratory and his colleagues, the Hungarians were downright in expressing their hope for increased scientific cooperation with the United States. Virtually all of the top scientists at the laboratory spoke English

well and were well-informed of the general status of nuclear programs in the U.S. They welcomed my indications that perhaps some modest, informal exchange could take place.

Although our visit was brief, I received the impression both from my discussions at the laboratory and with Ambassador Puhon that a definite improvement in U.S. relations with Hungary might be in our interest. Although the present Hungarian regime was placed in power by the Soviet intervention of 1956, it is my understanding that conditions in Hungary never returned to those before the uprising, and that conditions there, including the degree of personal and economic freedom permitted, have improved steadily in recent years.

An improvement in relations with the U.S. may also be feasible and acceptable on the Hungarian side. I understand that I am the highest level U.S. official to visit Hungary in 13 years (since 1956), and that the visit in all probability required and received the personal approval of President Kadar.

Romania

My visit to Romania, as I have already noted, was occasioned in part by the opening of the U.S. AEC's Atoms-in-Action exhibit in Bucharest, and was one of the principal purposes of my European trip. The visit was also made in reciprocity for a trip to the United States last November by Professor Horia Hulubei, Chairman of the Romanian Nuclear Energy Committee, who was my host in Bucharest.

In contrast to my low key visit to Czechoslovakia, every effort was made by the Romanians to give maximum publicity and visibility to my visit there. I have already mentioned my lengthy discussion with President Ceausescu, which was given top, front page press coverage. There were also a number of press, radio, and television interviews which were given wide circulation. Also, I had written some articles for Romanian newspapers and magazines, before my departure from the United States, and these appeared in print during my visit.

The AEC exhibit itself, of course, has attracted widespread interest and served to focus attention on my visit. I believe you will be interested in knowing that spontaneous applause followed my reading of your message to the exhibit, during my remarks at the opening ceremonies.

The preparation of the exhibit as well as my own visit received invaluable support and cooperation from Ambassador Meeker and his staff.

The discussion with President Ceausescu covered a broad range of subjects. He expressed his views on the importance of the role that science and scientists can play in national and world affairs, his feeling that the Non-proliferation Treaty will not be of major importance unless the nuclear powers make progress toward disarmament, and his well-known view that the war in Viet Nam should be ended to allow greater resources to be devoted to problems of development.

In addition to opening the AEC exhibit, I presented a scientific lecture at the University of Bucharest, visited an impressive national exhibition of Romanian machinery and atomic energy activities, and toured the Romanian nuclear energy laboratory (Institute for Atomic Physics) outside Bucharest.

Although Romania lacks a strong scientific and technological tradition, it is making rapid strides in this direction. I found their nuclear research laboratory impressive both in the scale of its effort and the quality of the work.

Romania is pursuing a nuclear power program which will result in the installation of approximately 1800-2400 MW of nuclear power by 1980, with the first reactor of 600 MW scheduled to be in operation by 1976. The program is based on the use of natural uranium, heavy water moderated reactors which will enable Romania to remain independent of foreign nuclear fuel sources - either American or Soviet. The reactors will be of the Canadian type and negotiations are now in progress with Canada on supply of the first unit.

Romania intends to produce its own heavy water, and is now negotiating with a United States firm, the Lumus Company, for the necessary engineering services, although the plant equipment will be acquired in Canada or Europe. The supply of the technology and related engineering services will be covered by an AEC authorization for which Presidential approval was given in 1968 following extensive Congressional consultation. This arrangement, although it falls far short of the type of cooperation, such as nuclear fuel supply, which we routinely have with friendly nations, will represent the most significant instance of U.S. cooperation with an Eastern European country in the field of peaceful uses of

nuclear energy. An important aspect of the arrangement will be the application of IAEA safeguards to the project to assure peaceful use of all plutonium produced. The Romanians are in full agreement with this arrangement, which will represent the first application of international inspection in an Eastern European country.

We held discussions in Bucharest on various aspects of the implementation of our Memorandum on Cooperation in the Peaceful Uses of Atomic Energy, the only such agreement between the U.S. and an Eastern European country, except the Soviet Union itself.

The Romanians are anxious to expand the cooperation beyond that now provided for. In particular, they are anxious to receive U.S. enriched uranium fuel in modest quantities for research purposes, and might even wish to purchase a research reactor or components thereof in the United States. We agreed to explore these matters on our return. Such supply arrangements could take place under an agreement for cooperation with the International Atomic Energy Agency, and would not require a new bilateral agreement, subject to Congressional review, with Romania.

I was deeply impressed by the current atmosphere of optimism and progress in Romania. I found a widespread willingness, and, in fact, eagerness on the part of Romanians to talk openly of their unique current political situation, their desires for closer ties with the West, and their determination to remain free of Soviet domination.

I was interested in the comment of a Western European Ambassador to Romania that your recent visit made a tremendous impact on the Romanian people, by convincing them that they were no longer isolated from the West. He observed that since your visit, Western Ambassadors' cars flying their national flags are frequently applauded on the streets of Bucharest. The very effective visit of Dr. DuBridge and, I would hope, my own visit, have contributed further to fostering this spirit within the Romanian scientific community.

Portugal

My visit to Portugal was made in response to the invitation of the Chairman of the Portuguese Nuclear Energy Commission, General Arriaga, who visited the United States in April of this year. General Arriaga, who is a prominent political figure, and was one of the leading candidates to

succeed Prime Minister Salazar, is now serving as chief of the ground forces in Mozambique, but has retained his position as Chairman of the Nuclear Energy Commission.

The Portuguese nuclear energy program is a modest one, built around a research reactor toward which a U.S. reactor grant of \$350,000 was made a number of years ago, and a small uranium mining and prospecting effort. The research facilities (Sacavem Nuclear Laboratory) were roughly comparable to those which I visited in Romania and Hungary, but the intensity and quality of the scientific effort were considerably lower in Portugal. Even so, the Portuguese nuclear center is the largest scientific research institution in Portugal and is making an important contribution to the development of a scientific and technological capability in Portugal.

Portugal has made studies indicating that nuclear power might be introduced in the latter half of the 1970's.

Portugal's principal technical ties on peaceful uses of atomic energy are now with other Western European countries, especially France and the United Kingdom, although the Portuguese are anxious to maintain and increase their contacts with us too.

In our conversations, we touched on the question of Portugal's attitude toward the Nonproliferation Treaty. They reiterated their position that they do not expect to accept the treaty in the absence of a specific quid pro quo, including the extension of NATO mutual defense assurances to Portugal's African territories. On a more informal basis, however, several of the Portuguese atomic energy officials expressed to me their personal beliefs that Portugal's attitude was unrealistic and that Portugal would ultimately become a party to the treaty.

Conclusion

I am convinced, as a result of my first extensive visit to Eastern European countries outside the Soviet Union, that there is a deep desire on the part of the scientific leaders of these countries for increased contact with the West, and with the U.S. in particular, and a corresponding determination to avoid complete Soviet domination. While small in number, the scientific elite in these countries (a large number of whom are engaged in nuclear programs) can exert an important influence on their national policies. I believe, therefore, that this desire provides us with a major

opportunity for steps which will help insure that the lines of communication with these countries remain open and that Soviet control is gradually diminished.

No single step we can take would be more effective or important than to expose these scientific leaders and potential leaders to the U.S. through unclassified visits and assignments to our program on peaceful uses of nuclear energy. Their societies can be changed, and, indeed, the very desire to change them can be sustained, only by those who have had direct knowledge and experience of a better system. Visits by well-qualified Americans to these countries can also be helpful.

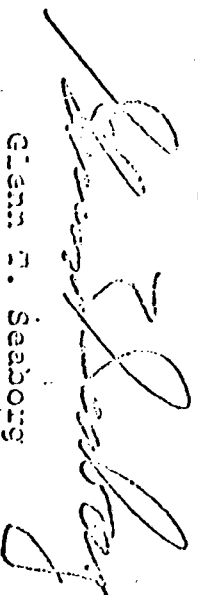
Unfortunately, we face a difficult obstacle to undertaking even a modest program of such visits and assignments. The AEC has no funds to support the travel and subsistence of foreign scientists at AEC laboratories, except in the limited instances when their qualifications are sufficiently high to justify direct employment by an AEC contractor. AID funds are unavailable for use in Eastern European countries, and we are unfamiliar with any other source of funds for this purpose.

I strongly urge the establishment of a fund which could finance both assignments of Eastern Europeans to the U.S. and U.S. scientists to these countries. While I am, of course, most concerned with the establishment of such a program in the field of atomic energy, I am certain that important opportunities exist in other fields. I note that a similar conclusion was reached by Dr. Durrig during his trip to Romania.

Such a program would be extremely modest in cost which, I believe, gains that would far outweigh these costs.

I would be pleased to have the opportunity to report to you personally on my visit and to discuss with you the possibility of implementing a program along the lines outlined above.

Respectfully,



Glenn T. Seaborg

Enclosure:
"Science, Technology and the Citizen"

At 5:05 p.m. I called Under Secretary of State Elliot L. Richardson. I told him that the main purpose of my call was regarding Irwin Tobin. It looked as though Tobin would be the deputy to Smyth at the U.S. Mission to the IAEA, and then something came up. It seems that someone in the White House decided they wanted to fill the job with somebody else, probably with a political background. This has caused a great deal of consternation and the Vienna people are hoping this can be resolved and that Tobin will be appointed. Richardson said he would check to see what the situation is and what can be done about it.

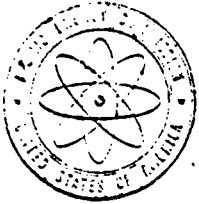
At 6 p.m. Helen and I attended the reception given by President and Mrs. Philip Handler of the National Academy of Sciences in honor of Mr. and Mrs. Peter L. Kapitza (Director of the S. I. Vavilov Institute of Physical Problems, U.S.S.R. Academy of Sciences) at the National Academy of Sciences. Among those present, besides the Handlers and the Kapitzas were: Dr. and Mrs. George B. Kistiakowsky, Mr. and Mrs. Thomas O. Paine, Dr. and Mrs. Leonard Carmichael, Dr. and Mrs. Hubert Heffner, Soviet Ambassador and Mrs. Anatoliy F. Dobrynin, Dr. and Mrs. Dael L. Wolfle, Mr. and Mrs. Caryl Haskins, Dr. and Mrs. Paul McDaniel, Dr. and Mrs. William D. McElroy, Walter Sullivan, Howard Simons, Athelstan F. Spilhaus, Sidney R. Galler, Emanuel R. Piore, William T. Pecora, and Cole.

I talked to Thomas O. Paine (NASA) during the reception about the request by Petrzhak (made during my recent visit to Dubna) for a moon sample in order to measure the ratio of U-235 to U-238. Tom said he would be happy to have me write Petrzhak, offering him such a sample.

Athelstan F. Spilhaus and I discussed the financial future of Science Service. He suggested that we try to arrange a closer tie to the American Association for the Advancement of Science. We also discussed this possibility with Dael L. Wolfle who was nearby. It was agreed that I should arrange for an earlier meeting, starting at noon on Saturday, November 8, 1969, as a prelude to a meeting of the Science Service Board of Trustees at 3:30 p.m. that afternoon. We agreed that I would invite Bowen C. Dees, Wallace R. Brode, Ted Sherburne, and possibly Ted Scripps to this meeting, in addition to Spilhaus and me. Spilhaus told me that Nova University is in deep financial trouble.

Wednesday, October 8, 1969 - D.C.

At 10 a.m. I presided over Information Meeting 950 (notes attached). The General Manager explained to us the cutbacks in construction which we are putting in effect, in keeping with directions from the President and the associated instructions from the BOB set forth in BOB Bulletin 70-5, which require a reduction of 75 percent of planned construction obligations for FY 1970. The cutback applies only to "bricks and mortar funds" and to AEC land acquisition and equipment procurement and also excludes projects related to national defense and restoration of facilities damaged by fire and flood. The result is that about \$94 million of obligations will have to be deferred, of which \$61 million were not scheduled until after July 1, 1970, leaving a balance of about \$33 million. This \$33 million includes a cutback in the 200 Bev Accelerator from about \$24.5 million to \$8.5 million, but this still permits award of contracts for the main accelerator housing.



UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

UNCL BY DOE
NOV 86

COPY NO. 3
October 8, 1969

INFORMATION MEETING 950

9:50 a.m., Wednesday, October 8, 1969, Chairman's Conference Room, D. C.

1. AEC 1127/16 - Maritime Administration Research and Development Conference

Commissioner Johnson plans to meet with the Maritime Administrator, Mr. Gibson. (Helfrich)

2. Safety Standards for AEC Facilities

The Commissioners noted staff planning.

3. Mr. Erlewine's Comments on Supplemental Report on the Rocky Flats Fire

4. NBC Request for TV Filming with General Giller for the "Tuesday" Show

Mr. Hollingsworth discussed briefly the NBC request for a filming to cover:

- a. Rocky Flats Fire
- b. Transportation of Nuclear Weapons

The Commissioners approved a negative response and the Joint Committee is to be informed. (AGMMA-PI-Congr.)

5. AEC 588/84 - Proposed Test of AI Modular Steam Generator in SCTI

Approved. (RDT)

6. AEC 745/57 - AIF/Commission Meeting on October 16, 1969 (See also Commissioner Johnson's October 7 Memorandum re Discussion Item for AIF Meeting)

Approved. (IP-SECY)

7. AEC 1283/56 - Construction Cutbacks
Noted.
8. AEC 319/22 - Status of Discussion with Japan on ABCC
Noted.
9. Commissioners' March 1970 Meeting with the Japanese Atomic Energy Commission, Tokyo, Japan
The Chairman, Commissioner Larson, and Commissioner Johnson or Commissioner Thompson will plan to attend. (AGMIA-SECY)
10. Presentation of AEC Citation to Dr. George B. Darling, ABCC, Tokyo, Japan, March 1970
Scheduled. (SECY)
11. Possible Sale of the Mariaco Building
Noted.
12. Note to Under Secretary of Interior Train re Amchitka
Requested. (AGMMA-Bloom-Fremling)
13. Commissioner Ramsey's September 19 Conversation with Dr. William W. Eason, Chairman, Commission on Nuclear Power Plants for the State of New York (See Dr. Beck's September 26 Memorandum re Exploration of Maryland's Interest in Environmental Monitoring Role)
Noted.

W. B. McCool
Secretary

10:50 a.m.

(Decisional items are subject to comments from Commissioner Thompson.)

PRESENT:

COMMISSIONERS:

Chairman Seaborg
Commissioner Ramey
Commissioner Johnson
Commissioner Larson

STAFF:

Mr. Hollingsworth
Mr. Hennessey
Mr. Bloom
Mr. Spurgeon
Mr. Kull
Mr. McCool
Mr. Erlewine*
Mr. Biles*
Mr. Shaw*

DISTRIBUTION:

Commissioners
General Manager
General Counsel
Secretary

*Attendance by Topic (s)

We also discussed the problems which have arisen with the Department of Interior in connection with tomorrow's meeting with the Minnesota-Wisconsin congressional delegation regarding environmental issues of nuclear power plants. Kenneth M. Klein of the Department of Interior is claiming that AEC has not cooperated with Interior in this area, which, of course, is an absurd allegation. He also claims that AEC would not cooperate with Interior with respect to the MILROW test. This statement is in direct contradiction to Under Secretary of Interior Russell E. Train's statement at the meeting of the NSC Under Secretaries Committee on August 28, 1969, at which time Train said that there has been complete cooperation between AEC and Interior. We also discussed the request to General Giller by the NBC "Tuesday" Show that Giller appear to answer questions in connection with the Rocky Flats fire and the transportation of nuclear weapons; we decided that such an appearance would not be consistent with security requirements for the weapons program.

Erlewine told us about the complete review of safety standards for AEC facilities which is now underway. We also learned that the building we now occupy at 1717 H Street may be sold to the Inter-American Development Bank, which would require the AEC to move from their quarters in this building.

I received a letter from Michigan Congressman John D. Dingell, Chairman, Subcommittee on Fisheries and Wildlife Conservation, requesting a complete and careful report of the geological, environmental, and ecological changes on Amchitka Island as a result of the detonation of the MILROW shot (copy attached).

At 12:45 p.m. I had lunch in the dining room with Julie Rubin, Justin Bloom, Stan Schneider, and Bob Kaye.

At 1:45 p.m. I met with Myron Kratzer, Sidney Fernbach (LRL, Livermore), and Vance Hudgins in my office to discuss the impending meeting with the Export Control Review Board.

I went along with Myron Kratzer and Sidney Fernbach to the Office of Secretary of Commerce Maurice H. Stans to attend a 2:30 p.m. meeting of the Export Control Review Board (in the Department of Commerce building). Present were the principals: Secretary Stans, Deputy Secretary of Defense David Packard, Secretary of State William P. Rogers, Richard Helms (CIA), Thomas Paine (NASA), and Theodore Thau (Executive Secretary of the Board). Also present were Basset (Commerce), Rauer Meyer (Director, Office of Export Control, Commerce), Scott (Board of International Commerce), Maurice J. Mountain, (DOD), Bennington (DOD), Arnold W. Frutkin (NASA), and one other person from NASA.

Stans opened the meeting by saying that its purpose was to resolve the issue of approval of export of a Control Data Corporation model 3300 computer to Czechoslovakia. All members of the Export Control Review Board, except the representative of the DOD, had approved this export. Stans therefore called on Packard to give his views. Packard said that he thinks that the COCOM guidelines should not be exceeded; otherwise we have an arbitrary situation difficult to control. He said he thinks the present problem should be handled by having a 45-day postponement of the decision, during which new guidelines may be worked out.

EDWARD A. GARMATZ, MD., CHAIRMAN

LEONARD R. (MRS. JOHN G.) SULLIVAN, MO.	WILLIAM S. MAILLIARD, CALIF.
FRANK M. CLARK, PA.	THOMAS M. PELLY, WASH.
THOMAS L. BRADLEY, OHIO	CHARLES A. MOSIER, OHIO
JOHN D. DINGELL, MICH.	JAMES R. GROVER, JR., N.Y.
ALTON S. LENNON, N.C.	HASTINGS KEITH, MASS.
TOMAS N. DOWNING, VA.	G. ROBERT WATKINS, PA.
JAMES A. BYRNE, PA.	HENRY C. SCHADEBERG, WIS.
FRANK G. ROGERS, FLA.	JOHN DELLENDACK, OREG.
FRANK A. STUBBLEFIELD, KY.	HOWARD W. POLLOCK, ALASKA
JOHN W. MURPHY, N.Y.	PHILIP E. RUPPE, MICH.
WILLIAM L. ST. ONGE, CONN.	DANIEL E. BUTTON, N.Y.
JOSEPH E. KARTH, MINN.	GEORGE A. GOODLING, PA.
WILLIAM D. HATHAWAY, MAINE	WILLIAM G. BRAY, IND.
WALTER B. JONES, N.C.	PAUL M. MCCLOSKEY, JR., CALIF.
RICHARD T. HANNA, CALIF.	LOUIS FREY, JR., FLA.
ROBERT L. LEGGETT, CALIF.	JACK H. McDONALD, MICH.
MICHAEL A. FEHRAN, OHIO	
FRANK ANNUNZIO, ILL.	
SPEEDY O. LONG, LA.	
MARIO BRAGGI, N.Y.	

House of Representatives, U.S.

Committee on Merchant Marine and Fisheries

Room 1334, Longworth House Office Building Washington, D.C. 20515

ROBERT J. ABLES
CHIEF COUNSEL

BERNARD J. ZINCKE
COUNSEL

NED P. EVERETT
COUNSEL

RICHARD N. SHARROD
MINORITY COUNSEL

UNCL. BY DOE NOV 86

October 3, 1969

10/2/69

ROBERT J. MCELROY, CHIEF CLERK

Dr. Glenn T. Seaborg, Chairman Atomic Energy Commission Washington, D. C. 20545

Dear Dr. Seaborg:

As you are aware, I have written you on several previous occasions expressing my concern over the proposed nuclear test operations in the Aleutian Islands National Wildlife Refuge (on Amchitka Island).

Now that the first, of a series of three planned tests, has taken place, I wish to have a complete and careful report of the geological, environmental, and ecological changes on Amchitka as a result of this detonation. I am vitally interested in learning what effects, if any, the detonation had on soil, timber, fish and wildlife values, and pollution of streams, rivers and harbors.

As Chairman of the Subcommittee on Fisheries and Wildlife Conservation of the House Committee on Merchant Marine and Fisheries, with general supervisory authority over fish and wildlife and the wildlife refuge system of this Nation, I wish to have this report at your earliest possible convenience. This information is urgently needed for my Subcommittee to carry out its responsibilities in this matter.

Sincerely,

John D. Dingell, Chairman Subcommittee on Fisheries and Wildlife Conservation

Stans asked whether it might be possible to approve the export of the CDC 3300 computer to Czechoslovakia and then have a look at the operating guidelines over a 45-day period. Packard agreed to this provided it would be accompanied by a 45-day moratorium on all other pending cases of export of computers that are above the guidelines in capability. This would include exports from the UK to Eastern countries. Stans asked if there would be any problem in doing this, and Thau replied that there would be because there are many such exports under consideration and there would also be problems with COCOM cases, such as UK cases and computers like the UK 4-70 computers. Kratzer pointed out that we have a kind of commitment to allow the export of some UK 4-70 computers.

After some further discussion of the concept of guidelines, it was decided that we would announce the approval of the export of the CDC 3300 computer to Czechoslovakia subject to COCOM approval. There would be a 45-day delay on the export of any other computers, during which time a study would be made of the guidelines. This would be done without revealing to COCOM our plan of action, but we would just count on the natural delays to account for the lack of action during this period. Stans suggested, and I emphasized my agreement, that the principals should meet whenever the staff study of the guidelines has been completed, some 45 days from now in order to establish the new guidelines. (Copy of chart attached.)

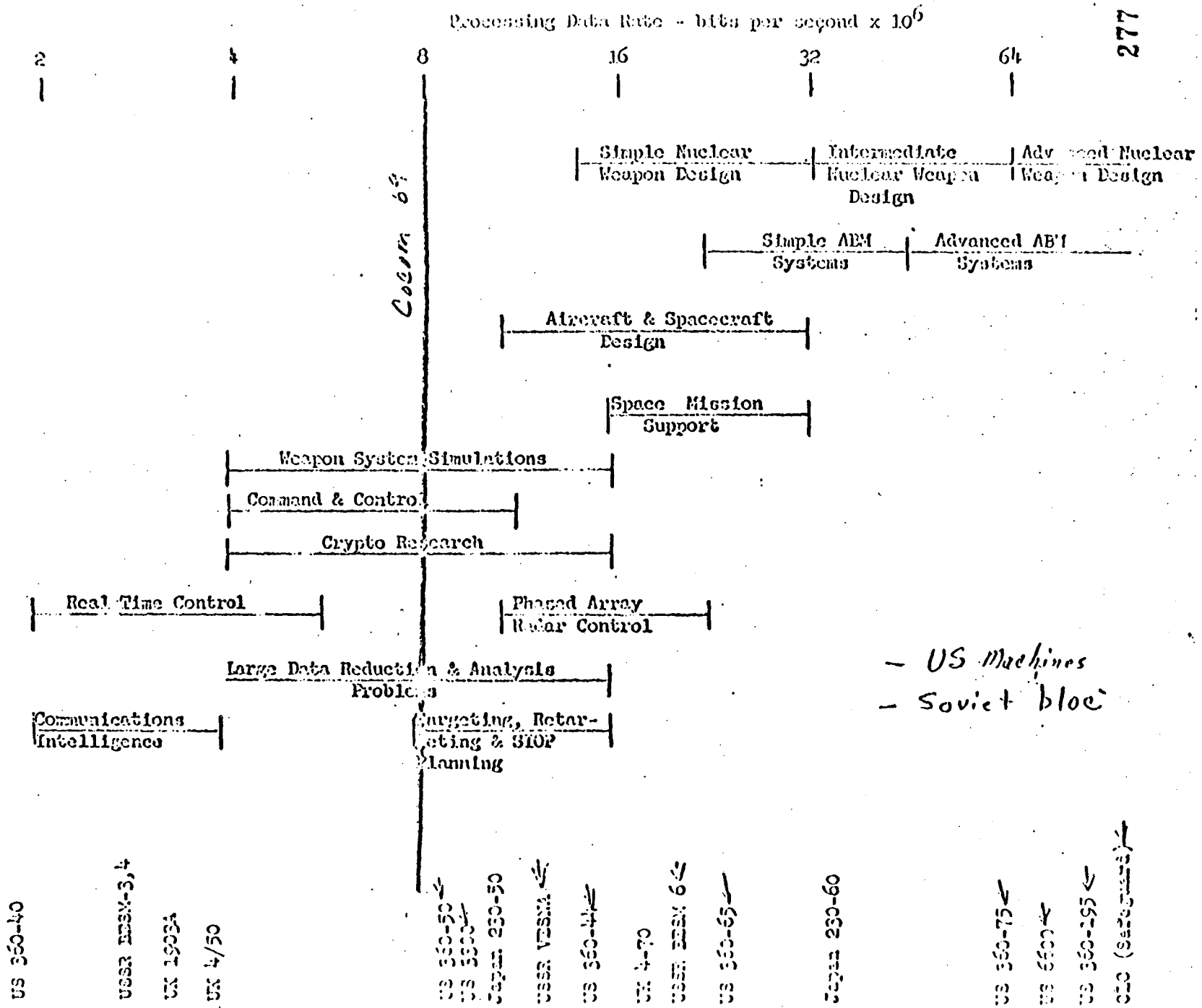
At 4 p.m. Commissioners Johnson and Larson and I along with the General Manager, heard a briefing by General Edward Giller, V. C. Vespe, D. L. Slusher, E. I. Bruce, and Major Wargo on the progress on the WALLEYE nuclear weapon.

I sent a letter to Peter M. Flanigan giving summary information on Project Rulison (copy attached).

Thursday, October 9, 1969 - D.C.

At 9:30 a.m. I was interviewed on tape by Spyridon Voultepsis (Interviewer) and Harry Hochberg (Engineer) of the Romanian section of the Voice of America concerning my visit to Romania. The questions were: (1) How successful was the "Atoms-in-Action" exhibit in Romania? (I described its three-fold function and termed it successful); (2) Has the present exhibit in Bucharest laid the basis for a substantial expansion of scientific and technical exchanges between Romania and the United States? (I indicated that it had and referred to the signing of a Memorandum on Cooperation by Professor Horia Hulubei and me last November); (3) During your visit to Romania you certainly met some of the Romanian nuclear physicists. What is your opinion about their researches and achievements in the peaceful uses of atomic energy? (I indicated that I was favorably impressed by my visits and mentioned Ioan Ursu (Director of the Institute of Atomic Physics), Serban Titeica (Deputy Director), Marius Petrascu, and Ionel Purica); (4) Have you visited any laboratory or research institute of special interest in respect to physical research? (I described my visit to the Institute of Atomic Physics and my visit to the Plasma Physics Department, the Betatron, the Reactor, the Radioisotopes Department, and the Cyclotron); (5) Speaking from the standpoint of the future, do you foresee a larger Romanian-American cooperation in the peaceful uses of atomic energy? (I

UNCL. BY DOE
MAY 86





UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

INDEX BY DOE
NOV 86

October 3, 1969

Mr. Peter M. Flanigan
Assistant to the President
The White House

Dear Mr. Flanigan:

I think that the following summary information on Project Rulison, including the status of activity at the project site as of October 3, 1969, may be of interest to you.

The explosive for Project Rulison was detonated safely and successfully on September 10, 1969 at one-tenth of a second past 3:00 p.m., Mountain Daylight Time at a point 8,443 feet below the surface of Battlement Mesa in Garfield County, Colorado (the explosive was at a depth 290 feet below mean sea level).

At no time following the detonation have radiation levels above normal background been detected from the Rulison event. Nine radiation-telemetry units were utilized for detection of any escape of radioactivity to the surface. One of the units was emplaced very near the ground zero point on the surface, with the remaining eight units located on the perimeter of an approximate circle of radius 300 to 325 feet centered on surface ground zero.

At 4:30 p.m., on the day of detonation, the surface ground zero (SGZ) area was open for inspection and the news media representatives were taken to SGZ for observation and a briefing. Upon arrival at SGZ, there were no observable manifestations of the explosion. The road was in excellent condition; no surface cracks or fissures were observed; the wooden assembly building was in good condition; nearby transformers were still on the poles; and a telephone on the ground near SGZ was operable and used to report back to the Control Point. Major representation at the SGZ briefing included NBC and CBS TV, 2-3 Denver radio and television stations, the Denver Post, Rocky Mountain News, and the Grand Junction Daily Sentinel.

A total of 67 U. S. Public Health Service personnel and State and County Public Health Department representatives from Colorado, Wyoming, and Utah provided off-site environmental surveillance and evacuation services. Two airplanes and two helicopters were airborne and operational at detonation time to assist in radiological monitoring, evacuation, and general reconnaissance and surveillance. An additional aircraft was on standby

alert in Las Vegas, Nevada--readily available should it be needed for any purpose.

The evacuation of residents living within a radius of five miles of surface ground zero began at 11:00 a.m. on the day of detonation. Of the 36 family units living within the five-mile "evacuation area," all but five left their homes prior to the detonation. Those choosing to remain at home were out of their houses at detonation time to preclude any possible injury from falling objects such as loose chimney brick or broken window glass. Each of the families electing to remain at home were accompanied by a U. S. Public Health Service representative.

Evacuated families started returning to their homes shortly after 6:00 p.m. on D-day; by 7:20 p.m., 95% of the residents were back in their homes; and at 7:45 p.m., all families had returned to their homes with the exception of one family who had not planned to return until the day following the detonation. The Public Health Service representatives accompanying each family on their return home, reported six cases of minor gas leaks in dwellings and six instances of minor damage to structures. Utility company personnel remedied all gas leaks prior to the re-occupancy of the houses. There have been no reports of any injury to people or livestock.

Sections of State and County highways from about eight miles east of Grand Junction to about fifteen miles east of Glenwood Springs were closed approximately one and one-half hours prior to the detonation. No significant rockfalls or landslides occurred and no damage on the highways due to rockfall has been reported. All of these roads were opened for public traffic thirty minutes after the detonation. Roads leading into the area of five-mile radius surrounding the detonation were opened shortly after 7:00 p.m.

The Denver, Rio Grande and Western Railroad was closed for a distance of about 90 miles between Grand Junction and Glenwood Canyon east of Glenwood Springs at E-30 minutes. Railroad traffic was resumed two hours after the detonation at reduced speed. The only damage reported by the railroad was a small rockfall about twelve miles from the detonation which resulted in a section of the railroad signal system being inoperative for a short time.

With respect to local mines, each of the principal mine owners or operators were contacted by telephone or in person soon after the detonation and advised that the potential seismic hazard had ceased. They were advised to make an inspection on re-entry and to report on perceptibility of ground motion and possible damage. No reports of damage to mines have been made. In particular, the manager of the Dutch Creek No. 2 and the

L. S. Wood mines, 16 miles southwest of Carbondale, Colorado, advised the project organization that an inspection revealed no apparent damage and no release of mine gases. The superintendent of the Roadside Mine reported that the ventilation systems were operating in good order. Detailed inspection of the Roadside and Cameo Mines (both approximately 17 miles east of Grand Junction, off Interstate 70) started on September 11. No damage was reported at the nearest mine to the detonation, the U. S. Bureau of Mines facility at Anvil Point near Rifle, Colorado, although minor falls of loose rock occurred from nearby cliffs.

From both specific observations and reports, there is no apparent damage to the Battlement Mesa reservoirs, the Harvey Gap Dam or other dams in the area. Seismic motion did, however, cause scale on the inside of liquid tanks at the Union Carbide plant at Rifle to shake loose and clog outlet drains. As a result, the plant was shut down for three and one-half hours. The plant operated for a short time at reduced levels but was fully operational at normal capacity by 10:00 p.m. on the day of the detonation.

Local seismic instrumentation for the Fulison detonation was rather extensive with 44 stations being monitored by the U. S. Coast and Geodetic Survey. Of these 44 stations, 40 operated properly with only four stations malfunctioning. The seismic station at the Rifle Gap Dam, operated by the U. S. Corps of Engineers, recorded an excellent signal. Stations in the communities of Collbran and Mesa, Colorado and the U. S. Bureau of Reclamation stations at the Vega Dam lost their signal a few seconds after detonation due to a power failure. Preliminary examination of seismic information recorded on the various seismographs indicates that the shock wave intensities conformed generally to the pattern predicted before the detonation, and further, the seismic data indicates that the Fulison explosive achieved its design yield of 40 kilotons.

A total of 254 property damage complaints have been received by the Atomic Energy Commission by October 3, 1969. Of that number, 113 formal claims for payment have been filed with the Fulison Claims Office in Grand Valley, Colorado. One hundred of the 113 claims have been processed for payment, the largest of which was for \$1,327.66 to provide repair to two brick chimneys and replacement of a brick fireplace in a Grand Valley, Colorado residence. The total amount paid to the 100 claimants is \$18,871.10. Essentially all complaints reported have been of a minor nature and center around cracked walls and ceiling plaster, cracked and broken brick chimneys, broken windows, lamps, and the like. The complaints received thus far are distributed as follows:

<u>Location</u>	<u>Complaints</u>
Grand Valley	122
Rifle	71
Collbran	25
Silt	6
Debeque	4
Grand Junction	11
New Castle	2
Mesa	2
Paonia	1
Palisade	3
Cedaredge	1
Carbondale	2
Leadville	1
Glade	1
Crescent Junction, Utah	1
Buffalo, Wyoming	1
	<u>254</u>

In preparation for the six month's standby period, the emplacement cable has been cut at the surface, a minimum of two feet of sandbags have been placed around the wellhead at ground level, a small wooden structure has been erected around the wellhead, and a perimeter fence placed around the wellhead building. Both the building and perimeter fence gate are kept locked. A radiation monitoring instrument and an air sampler are located in the building near the wellhead. These instruments are being checked at least once a day for the first few weeks following the detonation. The following two-month period will have instrument readings taken at least twice a week, followed by once a week checking until a drill back re-entry program begins.

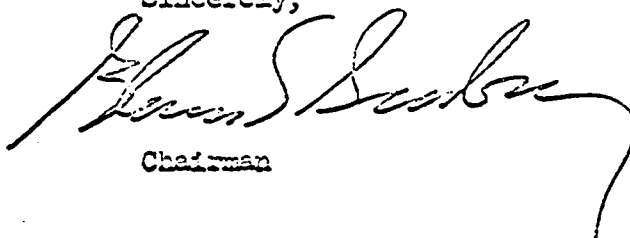
In addition to the radiation monitoring instrumentation at the wellhead, specially designed pressure equipment has been installed at the wellhead for continuous measurement of the pressure of shut-in gas. A wellhead pressure of approximately 400 pounds per square inch gage (psig) was initially measured on September 16, and on October 3, the shut-in pressure had risen to 2,025 psig. It is estimated that the gas pressure will increase slowly to approximately 2,400 psig by the time the post-detonation re-entry program is started--about six months after detonation. Although the pressure data is an indication that the Rulison gas reservoir has been stimulated by the detonation, these observations in themselves are not conclusive to successful stimulation. Many months of reservoir production testing and evaluation will be required to determine the success of the experiment.

Mr. Peter M. Flanigan

-5-

Should you have questions about Rubicon, please let me know.

Sincerely,

A handwritten signature in cursive script, appearing to read "Glenn S. Schubert". The signature is written in dark ink and is positioned above the typed name "Chairman".

Chairman

said I foresaw larger cooperation sparked by the Atoms-in-Action exhibit); (6) Would you tell us your impressions after visiting Romania: (I said my impressions were generally favorable and that I found a great deal of evidence of desire for increasing Romanian-American cooperation); (7) What other countries have you visited during the trip to Europe? (I mentioned my visit to Vienna, Austria to attend the IAEA Conference and my visits to Sweden, Switzerland, Czechoslovakia, the Soviet Union, Hungary, and Portugal).

At 10:15 a.m. I was interviewed by Chuck Owens (Washington) and Bill Flanigan (New York) of the Staff of Business Week. They are preparing a "Special Report" for the magazine on nuclear power. Among the questions they raised were those on concern about thermal effects; the development of the breeder; the matter of the public reaction to nuclear power and whether the AEC or the utilities should play a greater role in public nuclear education; the validity of our increasing need for electric power; the matter of the economics of nuclear power--whether in view of rising costs it would remain competitive; and the responsibilities of the utilities to the public.

At 11 a.m. I, along with Commissioners Ramey, Johnson, and Larson, as well as Woodford McCool, Harold Price, and Milt Shaw, met with the Advisory Committee on Reactor Safeguards until 12:15 p.m. Present were: Dr. Stephen Hanauer (Chairman), Dr. Joseph Hendrie (Vice Chairman), Harold Etherington, Hibbert M. Hill, Dr. Warren Kaufman, Harold G. Mangelsdorf, Dr. Harry Monson, Dr. Arlie O'Kelly, Dr. David Okrent, Lombard Squires, Dr. William Stratton, and Dr. Chester Siess. We discussed (1) plans for future meetings of the ACRS and the AEC with industrial representatives to discuss the general problem of future siting of reactors in heavily populated areas, (2) our request that the ACRS consider the safety aspects of advanced reactor concepts before they are too far along, and (3) the AEC program for public information related to environmental effects of nuclear plants. Howard Brown came in and described the latter program.

At 12:30 p.m. I received a telephone call from Dr. Hathaway (Chairman of the Committee for Selection of the President for Michigan State University). He asked whether I would be willing to be considered as a candidate for the presidency of Michigan State University. I said I have given this some thought and have discussed it with my family, and I have come to the conclusion that my answer would have to be no. He said he could understand my lack of enthusiasm for a university presidency at this time. I said it isn't that as much as the fact that my family wants to go back to California. He said he appreciated my frankness and would pass this information to the Committee.

At 12:40 p.m. I went to lunch with Dr. Alvin Weinberg in the Federal Office Building at 17th and H Streets. He is in town for a meeting of the Task Force on Science that President Nixon has recently appointed. I emphasized to him that the central problem here is the lack of funds.

At 3:30 p.m. I was interviewed by Marcia Henning (A.P.). I was interviewed for use in a sound strip in the A.P. production, "Man and His Environment." In reply to questions, I discussed the present problems with pollution of the environment and the possibilities of science and technology to solve these problems. I also explained the pervasive role

of science in our present age, the Age of the Scientific Revolution, or as I have termed it, the Third Revolution. I also explained the role of the Limited Test Ban Treaty in limiting nuclear bomb testing to the underground, thus reducing the fallout problem. I said that the fallout is at such a low level that it is not harmful to people. Charles Tasnadi, photographer, took 35 mm. film (slides), and Michael R. Tait did the recording.

At 5 p.m. I met with Henry Kearns (President and Chairman of the Export-Import Bank), along with Julie Rubin, Myron Kratzer, and Walter Munster. Kearns recalled that he was the national president of the Junior Chamber of Commerce in 1946 and presided at the banquet in January 1946 at which I was cited as the Outstanding Young Man of Chicago for the year (1945). He has a 78 rpm record covering the speeches that evening and will loan it to me so that I can make a taped copy. We discussed the various relationships between the AEC and the Export-Import Bank. He said that they are placing foreign nuclear power plants and jet airplanes at the top of their priority list for loans.

I sent a letter to the Vice President (copy attached) regarding the nation's oceanographic and marine science efforts. I received a letter from the President (copy attached) approving the Enrico Fermi Award for 1969 for Walter H. Zinn.

Friday, October 10, 1969 - Germantown

At 9:55 a.m. I presided over Information Meeting 951 (notes attached). We discussed the request of a reporter from the Intermountain Observer for a copy of the 1966 National Academy of Sciences "Committee on Geologic Aspects of Radioactive Waste Disposal" report which is unfavorable in an uninformed way concerning AEC waste disposal policies. We decided to defer release of this report until the new Academy committee, "Committee on Radioactive Waste Management," finishes their report, which apparently will be a more balanced report. We discussed the negotiations that are taking place with Atomics International, Babcock & Wilcox, Combustion Engineering, General Electric, and Westinghouse on the cost-type contract for LMFBR plant design research and development work. We are having problems with the patent provisions of these contracts, especially with General Electric, which will require continued negotiations. The General Manager told us that Russel Poor plans to retire some time before January 1 and Curt Nelson plans to retire before October 31 if the retirement bill presently before Congress is signed by the President before that date.

I received a Memorandum addressed to the Heads of Executive Departments and Agencies, dated October 9, 1969, from President Nixon regarding personnel management (copy attached). I also received a Memorandum (copy attached) for the Secretary of Defense and me from President Nixon, dated October 9, 1969, approving the recommended Amendment to the 1958 Agreement Between the Government of the United States of America and the Government of the United Kingdom of Great Britain and Northern Ireland for Cooperation on the Uses of Atomic Energy for Mutual Defense Purposes.

At 12:50 p.m. I had lunch in the cafeteria with Paul McDaniel, Julie Rubin, and Justin Bloom. We discussed various budgeting problems facing the Division of Research.

October 9, 1969

UNCL. BY DGE
NOV 86

The Vice President
United States Senate

Dear Mr. Vice President:

Thank you for your letter of October 6, 1969, concerning interim program proposals that will govern the scope and direction of the nation's oceanographic and marine science efforts for the next few years.

The Atomic Energy Commission concurs in the programs selected for increased effort, and with the concept of assigning lead responsibility for major segments of the program to appropriate agencies. Of those programs in marine sciences and technology scheduled for additional funding, we believe that participation in the International Decade of Ocean Exploration would be most appropriate in relation to our present programs, although we would hope to cooperate in the other areas listed where possible.

With respect to funding of the AEC's increased participation in these programs, it is our understanding that separate consideration will be given by the Administration to providing additional funds above those reflected in current agency budgets now being reviewed by the Bureau of the Budget, as indicated in your letter.

Respectfully,

(Signed) Glenn T. Seaborg

Glenn T. Seaborg

4bcc: Dr. English
bcc: Mr. Rubin

Letter originated in Dr. English's office; typed in Chairman's office.

JLB/jen

THE WHITE HOUSE
WASHINGTON

UNCL. BY DOE
NOV 86

October 9, 1969

MEMORANDUM FOR

THE CHAIRMAN, ATOMIC ENERGY COMMISSION

After reviewing your nomination for the Enrico Fermi Award, as set forth in your letter with attachment of September 12, 1969, and noting the endorsement of Dr. DuBridge, I approve the granting of the Enrico Fermi Award for 1969 to Dr. Walter H. Zinn, with the recommended honorarium, and hereby request either you or Dr. DuBridge to present the award in my behalf.



cc: Science Advisor to the President



UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

UNCL BY DOE
10/8/86

COPY NO. 5
October 8, 1969

INFORMATION MEETING 951

9:51 a.m., Friday, October 10, 1969, Room A-458, Germantown Headquarters

1. Status of Environmental Activities

Mr. Brown will submit a paper re AEC membership in the New England River Basin Commission. (AGM)

2. NAS Committee Report on Waste Disposal

The Commissioners requested acceleration of the Goodman Committee Report and a response to the inquiry which would say that report would be released after AEC review. A report on transfer of Rocky Flats plutonium to ARCO is requested and the Commission noted the activation of the AEC Task Force on Waste Disposal. (AGMO-PI)

3. Commissioner Ramey's Oral Report on the Commissioners' October 9 Meeting with the Minnesota-Wisconsin Delegation

4. JCAE Letter to the Department of Justice re Monticello Nuclear Generating Station; Suit Contesting State Regulation of Radiological Safety Matters

5. Under Secretaries October 14 Meeting re the Test Ban Treaty

The Chairman suggested discussion of Project Sturtevant after the meeting. (SECY)

6. The President Agnew's Letter re the Marine Program

7. Agenda for the Week of October 13, 1969
Approved. (SECY)
8. Commissioner Johnson's Meeting with Mr. Whitehead, White House, this Afternoon
9. Commissioners' Meeting with Export-Import Bank Officials
To be scheduled. (SECY)
10. Commissioners' May 8, 1970, Meeting with the ATF, Airline House
Scheduled. (SECY-IP)
11. Planning for the Commissioners' October 16 Meeting with the ATF
Approved. (IP)
12. Western Memoratorium Day - October 15, 1969 (See Secretary's October 9 Memorandum)
Noted. (AGMA-S-SECY)
13. NES Events for the Week of October 13, 1969
Noted. (AGMA)
14. Response to Senator Subright's October 2 Letter Query re Underground Testing Operations
Approved with changes for signature by the Chairman. (AGMA-Rubin)
15. AEC 1247/11 - Geneva IV: Report to the BOB on Proposed Scope of U. S. Participation
Approved. (TI)
16. AEC 901/489 - Soviet Bioe Nationalists: Proposed Visits to AEC Laboratories
Approved. (AGMA)
17. AEC 1239/13 - Membership of High Energy Physics Advisory Panel
Approved. (R)

18. Commission-Liaison with the General Advisory Committee
Commissioner Larson is designated. (AGMR&D-Griffin-SECY)
19. Commissioners' Meeting with the Japanese AEC, Tokyo, Japan, March 1970
The Chairman and Commissioners Johnson and Larson will plan to attend.
(AGMLA-SECY)
20. AEC 588/83 - LMFBR Plant Design R&D: Negotiations on Cost-Type, Task Assignment Contract
Staff may proceed. The Commission is to be kept informed. (DC-RDT)
21. AEC 960/14 - Plutonium Recycle Program Proposal by Edison Electric Institute (EEI)
Approved. (RDT)
22. Pending Contractual Matters Report No. 329
Noted. (PAR)
23. Personnel Retirements
Noted.
24. Mr. Erlewine's Oral Report on the Rocky Flats Supplemental Report
25. Commissioners' Meetings with Newspaper Editors and Conservation Representatives to Discuss Environmental Matters
Staff recommendations are requested. (AGM)
26. Possible Request for Access to AEC Records
To be checked. (GC-SECY)

W. B. McCool
Secretary

12:00 Noon

PRESENT:

COMMISSIONERS:

Chairman Seaborg
Commissioner Ramey
Commissioner Johnson
Commissioner Thompson
Commissioner Larson

STAFF:

Mr. Hollingsworth
Mr. Bloch
Mr. Ferguson
Mr. Rubin
Mr. Kull
Mr. McCool
Mr. Brown*
Mr. Eriewine*
Mr. Wes Johnson*
Miss Goodwin*
Mr. McColley*
Mr. Gaughran*
Mr. Brunenkant*
Mr. Wood*
Mr. Krautzer*
Gen. Giller*
Mr. Tesche*
Mr. Gerber*
Mr. Little*
Mr. Osburn*
Mr. Smith*
Mr. Giambusso*

DISTRIBUTION:

Commissioner
General Manager
General Counsel
Secretary

*Attendance by Topic (s)

WASHINGTON

October 9, 1969

MEMORANDUM TO THE HEADS OF EXECUTIVE
DEPARTMENTS AND AGENCIES

The increasing complexities and responsibilities of Government critically challenge every Federal manager. If we are to achieve our national goals we must have the kind of personnel management in Government that fully taps the creative and productive capacity of our workforce. We must also be in a position to assure ourselves and the country that our personnel resources in Government are being utilized efficiently and economically.

To achieve these objectives will tax the full capacity of top management, every line manager, directors of personnel and personnel specialists. It is therefore essential to encourage the development of the highest order of expertise and competence among those to whom professional personnel management responsibilities are assigned. It is also essential that heads of Executive departments and agencies clearly establish the important role of the director of personnel, making maximum use of his expertise in formulating and implementing personnel management policies. Managers at all levels must consider the personnel management implications of management decisions and insure that the full impact of personnel management policies and practices are taken into account.

Each Executive department and agency shall also establish a system to review periodically the effectiveness of personnel management in his organization so that he can assure himself and me that his organization is striving continuously to achieve the best possible use of personnel resources.

The U. S. Civil Service Commission will exercise leadership for effective personnel management evaluation by:

1. Establishing standards for adequate evaluation systems,
2. Conducting research in and developing methods for evaluating personnel management;

3. Insuring that persons who engage in personnel management evaluation are properly qualified and receive the necessary training,
4. Assessing the adequacy of agency evaluation systems and requiring necessary improvement,
5. Maintaining its own capability to make independent evaluation of agency personnel management effectiveness sufficient to evaluate the adequacy of agency efforts and to supplement and complement such efforts, and
6. Collaborating and coordinating with the Bureau of the Budget in its overall responsibility for evaluating organization and management in the Executive Branch.

The head of every department and agency shall (1) fully implement the broad Government-wide personnel policies and programs established by law, Executive order, and the Civil Service Commission, (2) be responsible for developing personnel policies for his agency which apply these policies and programs to the needs of his own organization, (3) evaluate the application of these policies, assigning responsibility for the establishment and review of the effectiveness of the personnel management evaluation system at the level of the Under Secretary or principal deputy to insure objective assessment of the total management impact of personnel policies and practices, and (4) take follow-through action to correct problems identified.

The Chairman of the Civil Service Commission will report to me periodically on the implementation of this memorandum.

Richard Nixon

THE WHITE HOUSE
WASHINGTON

UNCL. BY DOE
NOV 86

October 9, 1969

MEMORANDUM FOR


THE SECRETARY OF DEFENSE
→ CHAIRMAN, ATOMIC ENERGY COMMISSION

I have reviewed the recommended Amendment to the 1958 Agreement Between the Government of the United States of America and the Government of the United Kingdom of Great Britain and Northern Ireland for Cooperation on the Uses of Atomic Energy for Mutual Defense Purposes as set forth in your joint letter of September 26, 1969.

I note from your joint recommendation both that the United Kingdom is participating with the United States pursuant to an international arrangement by substantial and material contributions to our mutual defense and security, and that the proposed Amendment will permit cooperation which will be in support of NATO.

Considering the cooperation provided for in the Amendment and your joint recommendations, I hereby:

1. Approve the proposed Amendment to the 1958 Agreement;
2. Determine that performance of the proposed Amendment will promote and will not constitute an unreasonable risk to the common defense and security; and
3. Authorize the execution of the proposed Amendment for the Government of the United States in a manner specified by the Secretary of State.



cc: The Secretary of State

At 2:40 p.m. I presented a 10-year pin to Jan Nichols (Justin Bloom's secretary). The staff was present.

At 3 p.m. Neal Stanford of the Christian Science Monitor conducted a taped interview with me based on my Nobel Symposium talk, "Science, Technology, and the Citizen." This is for a possible question and answer type article to be published in the Christian Science Monitor. The questions concerned the role of science in today's world, with emphasis on the problems that this creates and my ideas as to how the general situation can be coped with.

Eric, Suki, and I took a hike in Rock Creek Park on the White Horse Trail and Cross Trails No. 3 and 4, back to the White Horse Trail and our starting point at Oregon and Nebraska Avenues.

Mike May called me at home concerning the paper that Tamplin is giving today in Minneapolis at the symposium on the environment, at which Commissioner Ramey and other representatives of the AEC are speaking. May said that Commissioner Thompson had been quite upset when he talked to Roger Batzel this afternoon about the Tamplin paper, which makes rather extreme assumptions concerning the potential concentration of cesium-137 in milk, leading to potential large levels of ingestions by consumers of milk. Batzel had told me about the Tamplin paper earlier this afternoon. I told May that the paper seems to be very biased, but Tamplin has the right to present it Saturday.

Saturday, October 11, 1969

Eric and I went to Memorial Stadium in Baltimore to see the first World Series game, which the Baltimore Orioles won over the New York Mets by a score of 4-1.

Eric, Dianne, Suki, and I took a hike in Rock Creek Park on the White Horse Trail to Cross Trail No. 2, to the Black Horse Trail and back on Cross Trails No. 3 and 4 to our starting point at Oregon and Nebraska Avenues.

I spent the evening reading AEC papers.

Sunday, October 12, 1969

Helen, Eric, Dianne, and I went to Kennedy Stadium to see the football game between the Washington Redskins and the St. Louis Cardinals, which the Redskins won by a score of 33 to 17. Vince Lombardi seems to have come up with a sound Redskins football team through a process of astute trading and use of player personnel and sound coaching.

Eric, Suki, and I took a hike in Rock Creek Park on the White Horse Trail to Cross Trail No. 2, to the Black Horse Trail and back on Cross Trails No. 3 and 4 to our starting point at Oregon and Nebraska Avenues.

I worked on my talks, "From Mendeleev to Mendeleevium - and Beyond" and "Elements 95 and 96 - 25 Years Ago," which I will present at the Welch Symposium on "The Transuranium Elements - the Mendeleev Centennial" at Houston, Texas, November 17, 1969.

The Soviets launched over the weekend three more orbiting spaceships which seems to be for the purpose of experimenting with the concept of a space platform.

Monday, October 13, 1969 - D.C., Albuquerque

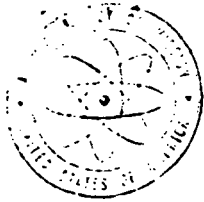
At 9:35 a.m. I presided over Information Meeting 952 (notes attached). We discussed the draft paper "An Analysis of the Uranium Enriching Department" that Peter Flanigan's office has prepared and which attempts to define some of the basic pricing criteria for establishing the uranium enriching department in the future (copy attached). We found a number of objections to the philosophy involved and an attempt will be made to set up a meeting with Flanigan or his people to discuss this. We also decided that we would ask Jerry Tape to speak to Senor Garcia Robles, Mexican Representative to the United Nations, in order to explain to him the reasons why the Plowshare services under the NPT should be set up in the IAEA and not in a separate agency as he suggests.

At 10:20 a.m. Governor LeVander of Minnesota returned my call. I called to suggest that we meet the next time he is in town to try to iron out the differences between the AEC and the State of Minnesota in the setting of standards for radioactive effluents from nuclear power plants, such as the Northern States Power Plant. This difference has created national attention and has been escalated to crisis proportions. LeVander said that he will be in Washington on October 28 and 29, and we agreed to meet on October 29.

I left the D.C. office at 10:45 a.m. with Stan Schneider to take TWA Flight No. 107 from Friendship Airport. The flight left on time at 12 noon and made two stops, one at St. Louis and one at Kansas City, Missouri, before arriving in Albuquerque at 3:40 p.m., five minutes ahead of schedule. I was met at the Albuquerque airport upon arrival by the following people: Sam Donnelly, Manager of AEC's Albuquerque Operations Office; Dr. Roger McClellan, Program Director at the Lovelace Foundation; James Futrell, Vice President of the Presbyterian Hospital Center Foundation and Director of Community Relations; W. G. Anding, TWA Manager; George Dennis, Public Information Officer, Albuquerque Operations Office; George Dexter, Driver for Albuquerque Operations Office; George Fails of the Albuquerque Chamber of Commerce; Frank Shifani, President of the Chamber of Commerce.

Mr. Shifani presented me with a "red carpet" and a "Key to the City," and Mr. Anding presented me with a medallion commemorating the 40th anniversary of commercial aviation in Albuquerque. TV news footage was taken of the arrival and presentations by KOB-TV (Channel 4).

We proceeded to the Sun Room in the airport terminal building for a press conference. Taking part in the conference were: Rex Munger of KOB-TV, an NBC affiliate; Dick McAlpine, Albuquerque Tribune; Joline Duffer, Albuquerque Journal; and cameramen from KGGM-TV (Channel 7) and KOAT-TV (Channel 13). The questions asked concerned the current problems of nuclear power, its use to "prevent smog," my trip to the U.S.S.R., the Soviet's attitude and the progress of their research, reactions to the recent tests, GASBUGGY and RULISON, nuclear space efforts and the pacemaker and artificial heart programs.



UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

UNCL. BY DOE
NOV 86

COPY NO. _____
October 13, 1969

INFORMATION MEETING 952

9:35 a.m., Monday, October 13, 1969, Chairman's Conference Room, D. C.

1. Commissioners' Luncheon with Chairman Henry Kearns and Members of the Export-Import Bank, 12:00 Noon, Monday, October 20, 1969

Scheduled. (AGMIA-SECY)

2. Senator Frank Church's Request for Release of Report on Waste Disposal

The Commissioners requested discussion with the Senator. (Congr. - AGMO)

3. JCAE Hearings on Environmental Effects of Nuclear Powerplants and Other Sources of Electric Energy, 10:00 a.m., October 28, 29, 30, November 4, 5, and 6, 1969

The Chairman will open the AEC testimony. (Congr.)

4. Commissioner Ramey's Report on the October 10 and 11 Conference on Nuclear Power and the Public, University of Minnesota

Commissioner Ramey suggested the Chairman call Governor LeVander, which he did during the meeting, and Commissioner Ramey will talk to Northern States Power Representatives. (Fremling)

5. Draft of An Analysis of the Uranium Enriching Department

Commissioner Johnson and staff will now discuss with White House staff. (OC-AGMP&P-Rubin-Helfrich)

6. Proposal by the Government of Mexico re an Agency to Provide Plover Services

The Commissioners suggested Dr. Tape discuss this matter with Senor Garcia Robles, Mexican Representative to the United Nations, in New York. (AGMIA)

7. Meeting with Governor LeVander of Minnesota, October 29, 1969, Washington, D. C.

To be scheduled. (Rubin-Fremming-SECY)

8. Senate Appropriations Committee Hearings on the FY 1970 Budget, 2:00 p.m., October 15, 1969

9. Agenda for the Commissioners' Executive Session Meeting, 11:30 a.m. - 1:30 p.m., Wednesday, October 15, 1969 (See Commissioner Johnson's October 9 Memorandum)

Noted. (SECY)

W. B. McCool
Secretary

10:30 a.m.

PRESENT:

COMMISSIONERS:

Chairman Seaborg
Commissioner Ramey
Commissioner Johnson

STAFF:

Mr. Hollingsworth
Mr. Bloch
Mr. Abbadessa
Mr. Quinn
Mr. Hennessey
Mr. Kratzer
Mr. Rubin
Mr. Rosen
Mr. Harris
Mr. Newlin
Mr. McCool

DISTRIBUTION:

Commissioners
General Manager
General Counsel
Secretary

AN ANALYSIS OF THE URANIUM ENRICHING DEPARTMENT

The President's objective in establishing the Uranium Enriching Department in the AEC is twofold. The primary objective is to establish the conditions and necessary information so that at the appropriate time the plants can be sold to private industry. Until that time, the objective is to insure that all the costs to the economy of enriching uranium are reflected in the price of enriching uranium. By insuring that the price of enriching uranium reflects all costs accurately, the nuclear power industry will no longer be subject to claims that it is being subsidized by the Federal government.

While the Department is intended to bring about a more efficient allocation of resources, it is not possible to exempt the Department from the usual constraints involved in the Governmental budgetary process. Since under the unified budget all expenditures must be included, any increase in expenditures by this Department would, in fact, be reflected in the budget, even if funded by borrowing from the Treasury or the private bond market. Therefore, the objective is not to replicate the independence of private enterprise, but rather to establish the operating incentives and costs that would result under competitive private ownership.

Since the major objective is a more appropriate price for enriched uranium, it is our belief that the changes could be made without new legislation. However, the Joint Committee on Atomic Energy must be given written criteria setting forth the time and conditions under which enriching services will be provided. Basically, the conditions would be that the new Department must price separative work so that over the long run, earnings would be sufficiently high to pay interest at commercial rates (8%), a return on equity of about 13%, make in-lieu-of-Federal corporate income taxes, ^{payments} set aside the equivalent of State and local taxes, and repay the bond and equity capitalization over 30 years. We expect that for the foreseeable future the existing price commitments can be maintained under this arrangement. However, should this at some future date require changes that the Congress feels undesirable, a direct appropriation to subsidize the difference should be provided.

The valuation of the uranium enriching complex is complicated by the existence of large stocks of preproduction inventory. It could be argued that the "value" of such inventory should be added to the value of the plants to estimate the value of the whole complex on which profit should be earned. However, this appears to be neither appropriate from an equity point of view nor from an efficiency point of view. The Department should not be held responsible for past decisions which probably would have been made differently under the new ground rules.

For future preproduction, however, the Department should, in fact, be required to "buy" U_3O_8 at market prices in order to insure that it reflects the proper incentives in making decisions about future preproduction. Even though past decisions may have been incorrect when judged by commercial rates, the Department will have to continue to buy electrical power on long-term contracts. Similarly, it must pay for "yellow cake." The effect of charging the Department the market value for yellow cake would be to add something less than \$1.20 -- probably about 90¢ -- to the cost of separative work.

Thus, when full costs to society are included, the charge for separative work would be something less than \$30 a unit. Such a price should be made to all buyers of separative work, including other branches of the AEC and the Department of Defense.

To achieve this goal, earning rates and interest payments must be equivalent to those paid by competitive industries. Costs equivalent to the taxes of a private enterprise also must be included. For an industry such as uranium enriching, it is our view that a 50-50 debt equity ratio would reflect the appropriate capitalization. Commercial rates of return in today's money markets would be about 8% on debt and 13% on equity.

The plants cannot be valued on the basis of future earnings, since future earnings of this complex depend upon the prices to be charged and the prices to be charged in turn depend on the capitalization of the plants. Past investment costs in the plant are also irrelevant for valuing the complex, since such figures have no relationship to what the plants could earn in the economy or how much a competitive industry would charge for separative work. It is clear, however, that in the long run a competitive industry would charge a price based on the cost of constructing new capacity. Thus, the appropriate means of measuring the value of the uranium enriching complex is to estimate its replacement costs. For illustrative purposes, a new plant with a capacity of 5,755 metric tons per year would cost about \$800 million. With a 30-year amortization period using accelerated depreciation, this would result in a price for separative work of about \$28.50.

Following the press conference, about 5 p.m., Donnelly, Schneider, McClellan and I drove to Sandia Base and across the base (covering 45,000 acres) to the Lovelace Laboratory. At the lab we were met by Mr. Percefield, Administrative Director, and by Drs. Thomas, Robbi, and Decker, all researchers on the program. We visited the beagle kennels housing about 200 dogs and learned about the care and breeding of them. A "harem" of 40 dogs is bred to maintain the strain for experimental control. We visited the inhalation facilities and a whole body counter. Roger McClellan explained the facilities and the effects of the experiments that deal with the inhalation of various fission products.



Lovelace Foundation Fission Product Inhalation Laboratory, Sandia Base, New Mexico; October 13, 1969.
L to R: Roger O. McClellan, Seaborg, Harold C. Donnelly.

After changing for dinner (black tie), Sam Donnelly escorted us to the Mesa Room and the Drum Room of the Sandia Officers' Club where the receptions were being held for the Presbyterian Hospital Center Foundation. Among the many people I met and spoke to were Mr. and Mrs. William Loudon. Mrs. Loudon is Jean Reid, daughter of Dwight Logan Reid, my high school chemistry teacher. Her husband teaches also, sixth grade. I also met Mr. and Mrs. M. Hardin (their daughter Helen is married to Senator "Scoop" Jackson), and Mr. and Mrs. Don Paxton (brother of Hugh Paxton). Don was one of my classmates (in physics) at UCLA.



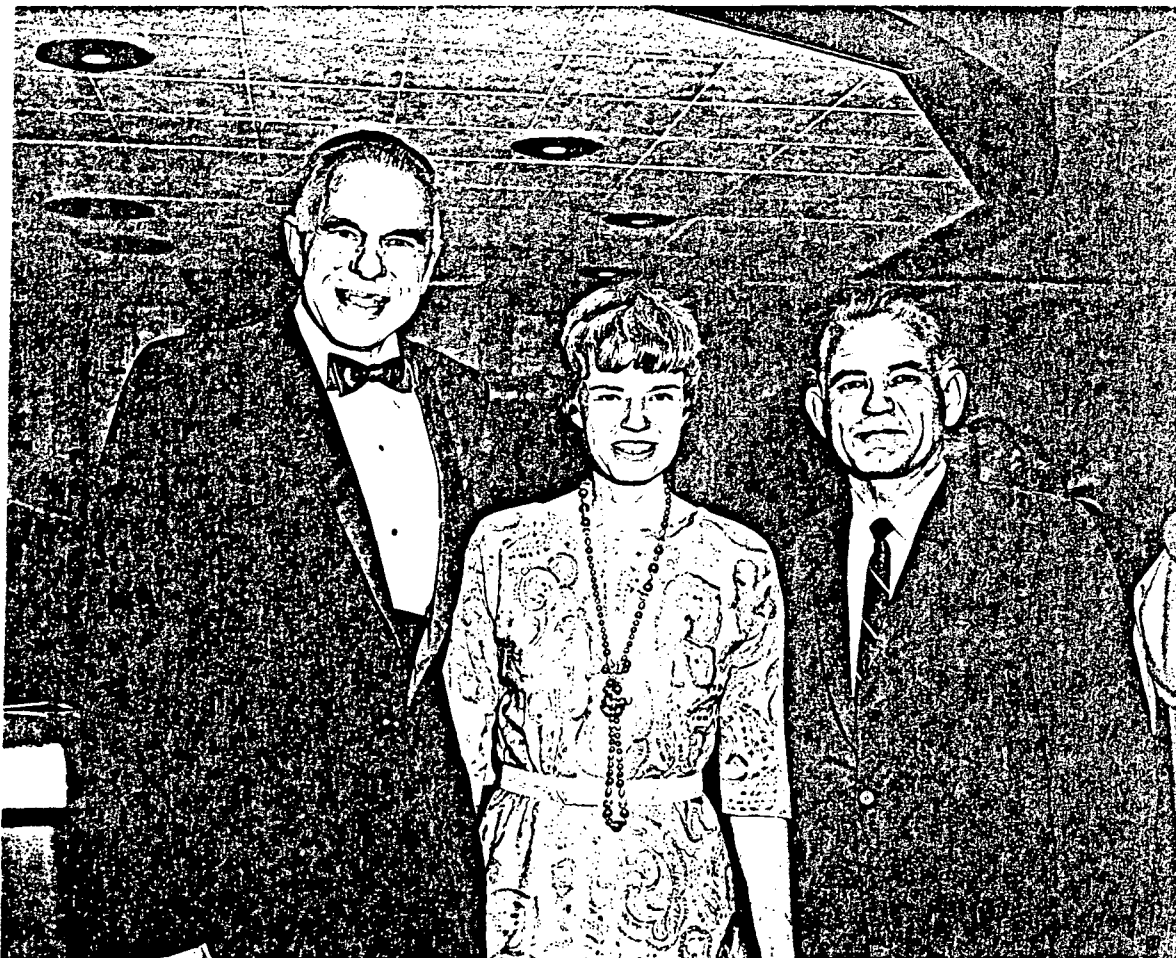
Founders Day Dinner at Presbyterian Hospital Center, Albuquerque; October 13, 1969.
L to R: Norris Bradbury, Seaborg, John A. Hornbeck, Harold C. Donnelly.

The dinner began at 7:30 p.m. in the main dining room of the Sandia Officers' Club. About 340 guests were present. Mr. H. L. Galles, Jr., President of Galles Motors and Chairman of the PHCF Founders Day Committee, presided over the dinner ceremonies. Mr. George W. Savage, President of the Board of Directors of the Presbyterian Hospital Center spoke. Sam Donnelly, who is the Chairman of the Board of Directors of the PHC Foundation, presented the Award for Excellence to me. The Award consisted of the citation in a leather folder and a mounted gold and silver symbol over an engraved plaque. (See also picture on next page.)

Following the presentation I spoke on "The Atom and Your Health." My remarks were broadcast by KGGM radio. I was interviewed by KGGM after my talk on the future of Sandia, etc.

Tuesday, October 14, 1969 - Albuquerque, New Mexico - Washington, D.C.

We had breakfast at the Sandia Officers' Mess at 6:45 a.m. with Sam Donnelly. He accompanied us to the airport with driver George Dexter. We flew on Continental Flight #150 at 7:55 a.m. to Denver, arriving there about 9 a.m. At 9:55 a.m. we took United Airlines Flight #166 direct to Dulles Airport, arriving at 2:35 p.m.



Founders Day Dinner at Presbyterian Hospital Center, Albuquerque; October 13, 1969.

L to R: Seaborg, Jean Loudon, William Loudon.

Attached is a copy of a letter from William E. Timmons to Congressman Craig Hosmer in response to Hosmer's letter to the President (copy attached) regarding the litigation between Northern States Power Company and the Minnesota Pollution Control Agency.

At 4:10 p.m. I attended a meeting at the State Department of the Under Secretaries Committee. Present were: Chairman Elliot L. Richardson, Jack Stevenson, Herman Pollack, Nelson Sievering, Arthur A. Hartman, Biltchik, and Wolfgang Lehmann of the State Department; General Robert E. Cushman and Peter Jessup of the CIA; Colonel Robert M. Behr of the NSC staff; General Earle Wheeler and Major General Demler of the JCS; Henry Loomis of the USIA; David Packard of the DOD; Commissioner Theos Thompson, John Kelly, and Allan Labowitz of the AEC; Gerard C. Smith of the ACDA; James Schlesinger of the BOB; and Hubert Heffner and David Freeman of the Office of Science and Technology. The meeting opened with Richardson asking me to summarize the excavation shots that are required before the decision can be made as to whether nuclear methods can be applied to the digging of a second canal across the Isthmus. I said that only two shots, the STURTEVANT and the YAWL would be required. The STURTEVANT shot is ready for execution next month, whereas the YAWL shot could be executed next spring. In addition, the excavation program

THE WHITE HOUSE
WASHINGTON

October 14, 1969

UNCL BY DOE
NOV 85

Dear Mr. Hosmer:

The President has asked me to thank you for your letter concerning the litigation between Northern States Power Company and the Minnesota Pollution Control Agency. He warmly appreciates your sharing your views with him, and they are receiving most careful attention.

With cordial regard,

Sincerely,

William E. Timmons
Deputy Assistant
to the President

Honorable Craig Hosmer
House of Representatives
Washington, D. C. 20515

bcc w/inc to The Attorney General FYI
bcc w/inc to Chairman Seaborg FYI ✓

Congress of the United States
House of Representatives
Washington, D.C. 20515

UNCL BY DOE
NOV 86

October 9, 1969

The Honorable Richard M. Nixon
The White House
Washington, D. C. 20500

Re: Northern States Power Company
vs
Minnesota Pollution Control Agency

My dear President Nixon:

I am enclosing a copy of an article in Electrical World for September 15 which summarizes the above-captioned controversy, and an October 6 article from the same publication, indicating that the Justice Department will not be instructed to intervene in the case to protect the Atomic Energy Commission's exclusive jurisdiction to regulate radiation releases from nuclear power plants, established in the Atomic Energy Act of 1954, as amended.

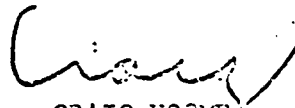
I also understand from other sources that "The White House" is advising the Chief of the Civil Division of the Justice Department, William D. Ruckelshaus, to stay out of the suit.

Also attached is a copy of my remarks to be delivered Saturday in Minnesota, establishing both the legal case and the rationale for exclusive federal jurisdiction in this area.

My position is that the U. S. Government ought to get in and get a decision establishing Federal preemption and that there are many good reasons for this, including the fact that the issue ought to be cleared as rapidly as possible if we are going to have a viable nuclear power industry in this country.

It is both my sincere hope and my strong advice that the Justice Department be instructed to intervene in this case as a friend of the court on behalf of the principle of Federal preemption.

Very respectfully,


CRAIG HOSMER
Member of Congress

CH/dh

Enclosures

contemplates two other experiments, the GALLEY experiment, which would be some seven shots about a year from now, and the GONDOLA experiment to be conducted in a different medium--a wet clay shale medium-- scheduled for the spring of 1971. I emphasized, however, that only the first two shots are required in order to give information for a decision on the canal across the Isthmus.

The discussion then turned to the question of the interpretation of the Limited Test Ban Treaty in the matter of detectable amounts as opposed to a de minimis interpretation. In order to compare the impending STURTEVANT shot with the SCHOONER experiment I handed out and explained the attached sheet. I emphasized the low level of the radioactivity involved and pointed out that even the background in our meeting room amounted to some 100 picocuries per cubic meter, much greater than the levels we expect at the Canadian border from the STURTEVANT shot. I also pointed out how much larger the maximum permissible concentration of tungsten-187 (the main isotope that will be released in the STURTEVANT experiment) is than the expected level to be released is. There was a great deal of discussion as to the interpretation of the Limited Test Ban Treaty that equates a violation with the ability to detect any radioactivity at all at the border. I emphasized that I didn't think this is a reasonable interpretation of the Limited Test Ban Treaty and suggested that the phrase, "radioactive debris," or the Russian translation of this phrase, "radioactive fallout," implied more than an insignificant detectable amount at the border.

Richardson asked one of the State Department lawyers present, Jack Stevenson, if my interpretation is viable, and he indicated that this is probably the best connotation that could be put on any concept that allows higher levels at the extremely small detectable levels. I said that I believe that the Limited Test Ban Treaty would never have been passed by the Senate (due to opposition by people like Senators Anderson and Jackson) if I hadn't testified that I thought excavation shots (larger than STURTEVANT) could be carried out under a reasonable interpretation of its provisions.

Packard argued for an immediate approval of the STURTEVANT event on the basis that we shouldn't give in to the unreasonable attitudes and the public clamor against testing and Wheeler supported him in this. Heffner and others raised the issue of increasing public pressures against activities that are thought to create environmental hazards. He expressed the view that this pressure would become extremely great in the case of STURTEVANT. I agreed with him that this is a serious problem and said that I consider it more serious in the case of STURTEVANT than the question of the interpretation of the Limited Test Ban Treaty. Smith expressed doubt that we should go ahead with the STURTEVANT shot and recalled that the study group had suggested that it be handled separately and that we limit the present recommendation in the suggested draft report to the President, which is concerned primarily with the derivation of an interpretation to the Limited Test Ban Treaty. I expressed agreement with that position and suggested that there are some recommendations in the draft memorandum, such as the recommendation that we resume our bilateral technical talks with the U.S.S.R. at an early date, which the AEC would like to see implemented as soon as possible. Richardson indicated that he thought it would be possible to go ahead

GROUND LEVEL CONCENTRATIONS ($\mu\text{Ci}/\text{m}^3$) AIR EXITE

ENCL. BY DOE
NOV 86

Event	Predictions			Actual
	Max. Case	Expected	Best Case	
Sturtevant-Total W187 *W187/MPC	200 120 0.012	15 8 0.0003	<1 <1 0.0001	
Schooner-Total W187 *W187/MPC	100 85 0.0035	<15 <11 <0.0011	<1 <1 <0.0001	<3 <2 <0.0002

* "Not present" criteria are for the ratio of the concentration of a specific radionuclide to its MPC to be less than 0.1 and the sum of such ratios for all radionuclides in the mixture to be less than 0.25. W187 is the controlling radionuclide in Schooner and Sturtevant debris under these criteria, MPC = 10,000 $\mu\text{Ci}/\text{m}^3$.

with the bilateral technical talks with the U.S.S.R. without further approval from the President and there seemed to be general agreement on this. Richardson also expressed the view that since the draft memorandum to the President (copy attached) doesn't recommend any particular position, it is doubtful that it should be sent to the President. He suggested instead that staff might restructure the memo so that the main courses of action recommended could be authorized without involvement of the President. These courses of action are: (1) that the AEC will promptly complete the development of the data necessary to establish objective criteria for acceptable levels of radioactivity, (2) on the basis of this, an attempt will be made to find an agreed upon interagency position that will allow a determination of what levels of radioactivity are consistent with the Limited Test Ban Treaty, and (3) resumption of the bilateral technical talks with the U.S.S.R. will be undertaken at an early date.

At 5:45 p.m. I had a conversation with Under Secretary of State Elliot L. Richardson in his office. I told him that I thought the matter of domestic public acceptance of the STURTEVANT shot is more important than the interpretation of the Limited Test Ban Treaty. I thought that a smaller group should discuss this and then perhaps discuss it with the President. I pointed out that in the case of the MILROW and RULISON shots it had been touch and go up to the very end and that the President had been involved in the final decision to go ahead at the very last moment in the case of the MILROW shot. I said that I thought this would also be the case with the STURTEVANT shot and that if the pressure became so great that it became necessary for the President to cancel the shot at the last moment, this would do great harm to both the President and the Plowshare program. I said I thought, therefore, that these hazards should be frankly discussed with the President so that, if he decides to go forward despite the tremendous public pressures that will build up, we would be in a position of not being subject to a last minute cancellation, which would do so much harm to all concerned.

I said that I had particularly in mind protecting the President on this matter, and that I certainly wouldn't push for carrying out the STURTEVANT experiment if an examination of these questions of public pressures should make it seem unwise. I pointed out that it could still be conducted as a completely contained device development test as was originally planned if we wanted to go ahead on this basis. Richardson seemed quite impressed by these arguments and suggested that a paper might be drawn up summarizing this situation by a small group, including a representative of his office, the AEC, the ACDA, and the DOD. He will take steps to have this done.

Wednesday, October 15, 1969 - D.C.

At 10 a.m. the Commissioners and I, along with Bob Hollingsworth, Harold Price, George Kavanaugh, Milt Shaw, Justin Bloom, met with David Freeman of OST, and representatives of the Federal Power Commission--J. N. Nassikas (Chairman), L. J. O'Connor, Jr., Carl E. Bagge, John A. Carver, Jr., Albert B. Brooke, Jr., R. A. Solomon, and G. Tomlinson. An exceptionally frank and productive discussion of problems of mutual interest among the three groups represented was held. I opened the meeting by stating that, although the AEC and the FPC had independent

10/14/69

OFFICE DIARY
GLENN T. SEABORG
Ch USAEC, 1961-72
FOLDER-PAGE 106202

NOT DECLASSIFIABLE

DOCUMENT TITLE Memo From Under Secretaries Committee, Hartman
To Dep. Sec. DEF. et. al. dated 10/9/69. "Peaceful
Nuclear Explosions and the Limited Test Ban Treaty"
0911678

This document has been determined to be NOT DECLASSIFIABLE and has been removed from this folder.

W. Teach
Name

11/24/87
Date

Reference Ltr. Dos Burke To DOE, OC Gilbert dated 8/19/87

106202

10/14/69

OFFICE DIARY
GLENN SEABORG
CH. BUREAU, 1031-72
FOLDER-PAGE 106203

NOT DECLASSIFIABLE

DOCUMENT TITLE MEMORANDUM FOR THE PRESIDENT -

ENCLOSURE TO 0911618 TITLED "Peaceful

Nuclear Explosions and the Limited Test Ban Treaty"

0911619

This document has been determined to be NOT DECLASSIFIABLE and has been removed from this folder.

W. Teach
Name

11/24/87
Date

Reference Ltr. DOS Burke To DOE, OC Gilbert dated 8/19/87

106203-106206

CROSS REFERENCE SHEET

document # 911619

TITLE OF DOCUMENT Memo. for The President
10/9/69 4 pages

This document requires further classification review and has been removed from this folder.

Dick Koogle
Name

September 9, 1986
Date

106203-106201
312

problems and also ones of mutual concern, it is necessary that every effort be made to avoid conflicts arising between the two groups. The discussion then centered on delays of construction schedules for both nuclear and fossil fuel power plants and the causes of them. I raised the issue of the shortage of nickel-steel that appears to be arising and it was agreed that OST would pursue this matter further. We also discussed the shortage of other power plant components such as pressure vessels.

The next subject discussed was the matter of undergrounding high voltage transmission lines. I pointed out that the Government had committed itself to the development of undergrounding at the time of the Woodside affair and the FPC representatives responded that a bill which would have permitted cost sharing of development with industry failed to pass the Congress and Westinghouse is now proceeding with development using private funds. The FPC Commissioners noted that their national power survey will be completed in draft form early next year. Commissioner Ramey then gave a briefing on the AEC's public information program related to the environmental effects of nuclear power plants, and we discussed the role of individual antagonists and the problems which need to be resolved, such as state versus Federal regulation of reactor effluent discharges of radioactivity. The meeting lasted for an hour and a half, and because of the fruitful discussion, not all of the items on the agenda could be brought up. It was therefore agreed that future meetings between the two Commissions should be held.

At 11:30 a.m. I presided over an Executive Session of the Commission with the intended purpose of having policy discussions on key issues with the General Manager. Prior to starting these policy discussions, Commissioner Johnson reported on his meeting on Tuesday, October 14, with Whitehead, Kriegsman, and Tom Moore of McCracken's staff about the proposed talking paper to be used in reviewing with the JCAE an announcement by the White House on their decision on future operation of the diffusion plants. A revised statement principally with comments prepared by John Abbadessa was distributed. Ramey noted the statement and White House plans seemed to suggest it would not be appropriate to dispose of these plants prior to the late 1970's or possibly the early 1980's. The effect of the White House position on the eventual price of separative work was discussed and particularly the influence of price on foreign sales and the balance of payments.

Commissioner Johnson stated the White House group is definitely in favor of an entirely separate organization within the AEC to manage this activity and specifically noted they are against any two-hat jobs. Mr. Hollingsworth stated a paper would be circulated shortly showing the number of people required to staff a separate organization. Commissioner Ramey suggested a record letter be prepared by the Commission to Flanigan pointing out the serious aspects of the White House decision. He referred to the potential of another Dixon Yates affair and thought the Commission should be on record when in the future someone asked "Why didn't you tell us?" Reference was made indirectly to Flanigan's financial institution background and also a reported letter to A. D. Little indicating that their study should support early disposal of the plants. In this discussion, a reference was made to Ken Nichols' going through the back door to contact the White House on this subject. Commissioner Thompson expressed concern over the recent data regarding

the gas centrifuge having a significant influence on both the value of our diffusion plants and the price we might set in the near-term for the cost of separative work.

Hollingsworth expressed agreement with Ramey's position on the potential for a Dixon-Yates accusation but noted the reaction by the JCAE will depend on the intent for early sale of the plants and whether the sale price suggests a windfall for private companies. He also indicated the JCAE would react strongly to the budget issues of charging the Navy and the DOD for enriched uranium, and the legal question of whether the Commission could charge for separative work at rates above our actual cost. I queried Ramey and the other Commissioners on what a letter from the Commission to the White House could actually say and pointed out that our initial position also seemed to lean in the direction of early disposal of the plants. This position was later changed when Hosmer and Holifield came out strongly for the Government corporation concept. I agreed to try and discuss the matter verbally with Flanigan in lieu of sending a letter.

Commissioner Johnson stated in his view the price of separative work in relation to the sale price of the plants is the only problem he could visualize (summary attached). The implication here is that a low sale price for the plants could result in give-away accusations and a high sale price for the plants would result in an unrealistically high price for the separative work. Commissioner Thompson continued this same line of thought by commenting that he is greatly concerned about any increased cost of separative work having a strong influence on the overall nuclear power program, both abroad and in the U.S. Commissioner Larson stated that he did not think the cost of separative work would influence overall nuclear power to any serious degree as it only represents about .4 of a mill which in itself is in the general area of 10% of the total power.

At this point, I changed the subject to inquire how the Commission thought we should respond to Bogart and others that would be appearing at the Senate Appropriations Committee Hearing later today. Hollingsworth suggested that I and other Commissioners avoid detailed answers to any questions if possible and refer these to the staff people who would be present.

At this point, the meeting turned to the review of policy matters with the General Manager. I noted that there was no planned agenda and that Commissioner Johnson had circulated a statement of possible items that might serve as a basis for starting the discussion. Commissioner Johnson reviewed in highlight terms the major topics on his list which were as follows: Public acceptance--how does the Commission draw the line on taking a promotional attitude. He suggested the utilities pick up the promotional effort. Ramey commented we should not admit that we are promoting and only emphasize educational, development, and regulatory functions of the Commission. Commissioner Larson queried whether the Commission has regulatory responsibility for the uranium mining problem. Ramey noted that we do not have this responsibility, but as the principal purchaser we could have taken additional steps in our contracts. Larson stated we may have to take more initiative in the regulatory field such as in environmental matters even when we do not have the responsibility. Commissioner Ramey stated we may have to make a very early decision on the matter of states' responsibility in the nuclear field. The

Plant

Base Unit Charge (Recovers all costs and initial plant investment as per the detailed financial records except for charges on the fixed or percent of the post 7/1/70 preproduction, charges for the post 1981 preproduction Flywheel inventory, and the addition of costs of separate and contractor organizations. These items are considered separately as add-ons.) \$26.97

Inventory Charge for Feed Component of Post 7/1/70 Preproduction (Feed purchased and later sold at \$8/lb. H₂O₂.) .99

Inventory Charge for Separative Work Component Post '81 Flywheel Inventory (Based on an inventory of 2 months of production.) .45

Extra Cost Associated With Independent and Contractor Organizations .17

Unit Charge for Separative Work \$23.58

Possible add-on for feed component of post '81 Flywheel Inventory is \$0.66; charge in this case = \$29.04

Plant

Base Unit Charge (Recovers initial plant investment and all costs except for the inventory charges on the post 1981 preproduction Flywheel inventory.) ^{2/}\$23.48

Inventory Charge for Separative Work Component of Post '81 Flywheel Inventory (Based on an inventory of 2 months of production.) \$23.40

1/ Based on 50/50 Debt/Equity Ratio; .03/.13 Return on Debt/Equity; 30-y. or plant life; and accelerated depreciation.

2/ Based on full period operation at a steady and efficient rate.

forthcoming environmental hearings before the JCAE would require a Commission position on this matter.

Commissioner Johnson's second topic related to civilian power. He expressed a preference for a change in our method of subsidizing the first LMFBR demonstration plants, which would provide for scheduled payments at the completion of target objectives such as the construction permit stage and other check points in the project. He also stated a preference for control of the project through the regulatory process rather than through control of the design and development performed by the utility and reactor manufacturer. Ramey expressed strong disagreement with this approach and noted it would be a major change in our established LMFBR policy.

Commissioner Thompson suggested that we take an entire day preferably away from the Commission headquarters and review each of the items on Commissioner Johnson's list. I suggested as an alternative that we discipline ourselves to devote sufficient time at our offices where we have staff and reference papers on these topics. I further suggested that Commissioner Johnson and others consider writing up their positions on major policy issues which could serve as a point of reference for discussion of these topics.

I again changed the subject and referred to the Under Secretary's meeting yesterday in which the relationship of Plowshare activities and the limited test ban treaty was reviewed. This meeting lasted almost two hours and was generally confused. Mr. Packard of DOD pushed strongly for approval of STURTEVANT at this meeting, even though it wasn't on the agenda. The only conclusion reached in the meeting was that the AEC should go forward with the technical talks with the U.S.S.R. and that an attempt should be made to obtain interagency agreement on guidelines for future conduct of AEC Plowshare experiments. With regard to STURTEVANT, I suggested to Richardson that the President should be thoroughly briefed on the public opposition that could be anticipated to excavation experiments. I emphasized that he should be prepared to accept this opposition and not back down if a decision was made to go forward with one of the experiments.

Returning again to Commissioner Johnson's policy issues, we took up the item of personnel clearances for the AEC's safeguards program. Johnson expressed great concern with the fundamental constitutional issue here, and I supported his concern. Ramey stated this matter has been discussed on a number of occasions, and it is clear the Commission has the authority to require these clearances. He also stated we need a continuity in our decisions and that they should not be changed unless there is a clear need.

Commissioner Johnson's next topic dealt with the tactical weapons stockpile and particularly the effect on AEC operations if the DOD returns to the AEC large quantities of enriched uranium that might result from a commitment to increased tactical weapons depending largely on plutonium. His principal suggestion here was that we have a contingency plan.

With regard to the gas centrifuge, Johnson suggested it is again timely to look into the role of private industry in the development of this

technology. Ramey stated this would be another change in policy that would have to be carefully considered. Johnson continued by stating that we may want to have the industry in a position to carry out any required expansion of our enrichment facilities particularly with centrifuge plants if it continues to appear promising.

The next subject was radiation standards and again it was emphasized that we need a decision on any change in these standards prior to the JCAE environmental hearings. It was agreed Commissioner Ramey, along with Harold Price and Commissioner Thompson, should develop a Commission position on this matter for consideration at a near-term meeting. At this point Price was brought into the meeting for the continuing discussion of this topic. Commissioner Ramey expressed a view that we should not reduce the present requirements in Part 20 and should issue instructions that utilities should plan on operating with radioactive discharges "as low as possible." These instructions would be supplemented by guidelines issued by the Commission as to how the utilities would minimize these discharges. An annual or some periodic review would dictate whether changes in Part 20 were needed or whether this new approach would provide the desired control. I thought this idea had merit but inquired whether it would satisfy the critics who are seeking major reductions in our standards. As a compromise, I thought we might consider both a reduction in the standard and the Ramey approach of seeking as low as possible discharge with related guidelines.

Price seemed reluctant to agree to a change that would not give a clear legal point of reference for his regulatory operations and the ACRS to license power reactors. He noted plans for the SMUD project plus the two Consolidated Edison plants where equipment was being installed to essentially provide for zero discharge of any radioactive materials. He pushed for installation of this equipment being a requirement, but Ramey and others would not agree to this as a requirement at this time. Commissioner Johnson stated that any Commission position lowering the exposure standards would result in labor difficulties that would affect both the cost of nuclear power and its operational staffing. Commissioner Larson stated he has been carefully reviewing the available data on personnel exposure to low levels of radioactivity and has been unable to find any technical basis for concern.

In the afternoon I testified before the Senate Appropriations Committee on the FY 1970 budget. Commissioners Ramey, Johnson, Thompson, and Larson and many key staff were present. The Committee members and the invited observers present were Senators Allen J. Ellender (Chairman, Louisiana), Milton R. Young (North Dakota), John Pastore (Rhode Island), Gordon Allott (Colorado), Warren G. Magnuson (Washington), Alan Bible (Nevada), Mike Gravel (Alaska), Albert Gore (Tennessee), and George D. Aiken (Vermont). Ellender was present for the whole session, Magnuson present for most of the session, while the others were present for varying times. The hearings opened at 2:10 p.m. with presentations from a number of witnesses who were attacking the Commission's nuclear power reactors development program on the basis of its deleterious effect on the environment, its wasteful use of uranium, and so forth. These witnesses included Lamont Cole, Edward Radford, and Larry Bogart. Milton Freeland also testified against the Commission's Plowshare and weapons testing programs, declaring them unsafe. The testimony of Cole and Bogart was particularly wild and full of misstatements.

I didn't reach the witness stand until about 5 p.m. In response to a request from Ellender I gave a short rebuttal, particularly to Cole's and Bogart's assertions, concerning their views on the environmental dangers of the radioactive effluents from nuclear power reactors.

I described the low level limits on radioactive effluents set by the AEC, and generally refuted the allegations of Cole and Bogart. In the course of this I responded to a number of questions from the other Senators present, including Gravel who explored the Amchitka testing situation. I then gave my prepared statement, in which I requested restoration of four items which had been reduced by the House in our FY 1970 budget. I requested restoration of the Hanford "K" reactor, \$25 million for the 200 Bev Accelerator, and \$7.5 million of equipment funds. The questioning following my presentation went quite well and I believe we were able to defend the requested restoration successfully.

Eric, Dianne and I had dinners which I had picked up at the Hot Shoppes.

Helen visited the Amish country in Pennsylvania today with a group from the Independent Agency Wives. She returned from her trip about 9 p.m.

Thursday, October 16, 1969 - D.C.

At 10:15 a.m. I met with Lou Agnello, Associate Editor; Fred H. Zerkel, Assistant Editor, Washington News Bureau; and Bob Hadsel, Staff Writer, all of the Chemical and Engineering News. The basis for the interview was interest in my recent trip to Europe. I named the countries in the order visited and briefly told about my contacts and experience in each. Questions raised included the status of Soviet research in fusion and heavy elements and our possible cooperation with them in future high energy physics work. The interview then shifted to matters of nuclear power here in the U.S., questions concerning the fluctuation in reactor sales and the reasons for this, thermal effects, and the state-AEC relations in regulating effluents and thermal effects. They will show us advance drafts of the articles they plan based on the interview.

At 10:55 a.m. I met with Edward S. Cornish, President, World Future Society, along with Stan Schneider, as a follow-up to his letter of October 2, 1969, inviting me to be a member of the Board of Directors of the World Future Society. He described the scope and aims of the Society and we discussed in general the importance of its work. I told him that I would be glad to serve on the Board, provided he understood the limitations on my time, including a probable inability to attend very many Board meetings.

At 11:15 a.m. Julie Rubin, John Morrissey, Joseph Lafleur and I met with W. A. Anders (Executive Secretary, National Aeronautics and Space Council) and Dr. Alexander Dessler (top scientist at the Space Council). Anders stated he had requested this brief meeting to review some general plans for the Space Council staff. He mentioned a planned meeting on October 28 at 2:30 p.m. in which the staff would advise the Principals of their planned mode of operation. In general, they want to be an active group and have some mechanism of operating through the Principals and independently between meetings. Anders presently has a staff of six professional people and stated this is about one-third of what he needs.

They will divide their work about 50-50 between space and aeronautics. Discussions have been held with Milt Klein about obtaining someone on detail from the AEC; it was noted they already have six from DOD, two on board and two planned from NASA, and one from DOT.

Anders asked me if I had any comments about the role of the Space Council; I replied this would depend on their method of operation, which might include past general reviews or specific activities such as that performed by the recent Space Task Group. Anders stated he thought the Space Task Group work could have been performed by the Space Council staff if they had been fully active at that time. He stated a desire to concentrate on policy issues and noted that the single decision of landing a man on the moon was not a difficult one to make but broader policy is now needed. I asked if he is going to look into the balance between support for scientific work and applications. Anders stated he has already discussed this with Dr. DuBridge and noted the presence of his associate, Dr. Dessler (formerly of Rice University), who will be on his staff to coordinate work with OST.

At 12:30 p.m. I hosted a luncheon at the Madison Hotel in the Monticello Room for Sir Philip Baxter (Chairman, Australian AEC). He was accompanied by T. F. B. MacAdie (Deputy Head of International Relations, Australian AEC). Also present were: Michael Farrell and Garry Chandler, Australian Embassy; Thomas Whitehead, White House; Trevithick, State Department; Congressman Chet Holifield, JCAE; Mr. Shwiller, JCAE staff; Commissioners Ramey, Johnson, and Larson, Bob Hollingsworth, Ed Bloch, Howard Brown, Myron Kratzer, Allan Labowitz, Julie Rubin, Milton Shaw, Paul McDaniel, and Allan Dalton. Following the luncheon I delivered a few words of welcome to Sir Philip Baxter. I mentioned his many visits to the U.S., the visits of Paul McDaniel and Richard Doan to Australia last summer, my visit to Australia in January 1967. I said that we were interested to learn of the announcement of Australian Prime Minister John Gorton that Australia intends to install its first nuclear power plant to get underway within about three years, thus opening up Australia to a substantial nuclear power plant program for the future. I asked Sir Philip whether he would tell us a little about this.

Sir Philip responded by saying that he was happy to be in the U.S. He said Australia is planning an extensive nuclear power program in the future and that he is glad that his efforts to have this announced in an official way, as Prime Minister Gorton did a week ago, have finally borne fruit. He said that he expects the first few reactors to be of the heavy water-uranium type. He said that Australia will then probably be interested in advanced converters, such as the high temperature gas-cooled reactor and also will be interested in the molten salt reactor. He said he doubts that there would be any place for the water-cooled reactors in Australia. He ended by inviting me and the others of the AEC to visit Australia.

At 3 p.m. I attended the meeting of the Board of Directors of the Atomic Industrial Forum at the University Club. This was a joint meeting with the AEC and our representation included: Commissioners Ramey, Johnson, and Larson, as well as Bob Hollingsworth and others. The attendance from the AIF consisted of M. Benedict, J. F. Bonner, G. E. Brown, J. F. Davenport, J. J. Flaherty, S. R. Knapp, R. T. Person, P. N. Powers, C. Robbins, W. H. Rowland, H. G. Slater, M. R. Tait, P. Turner, P. M.

Arnold, J. T. Conway, W. K. Davis, F. de Hoffmann, C. J. Dorrenbacher, K. D. Nichols, K. R. Osborn, D. F. Shaw, J. T. Sherman, N. W. Stalheim, E. A. Wiggin, R. D. Allen, W. B. Behnke, G. L. Gleason, K. W. Hamming, G. Kinsman, P. Lancaster, R. P. Liversidge, B. B. Parker, J. K. Pickard, A. E. Schubert, C. H. Weaver, G. O. Wessenauer. The meeting was scheduled to start at 3 p.m. but a number of us spent the first 16 minutes until 3:16 p.m. watching on TV the fifth and final world series game, which the New York Mets won (over the Baltimore Orioles) by a score of 5 to 3.

Sherman Knapp (President of the AIF) opened the meeting and then we divided into three groups to discuss the following three subjects: (1) the public controversy over the environmental effects of nuclear power and the AEC and AIF information program to counteract this; (2) the AEC's regulatory program and the matter of the proper consideration of AIF comments upon it; and (3) the future of the AEC's uranium enrichment plants and AEC policy regarding its natural uranium stocks and the importation of foreign uranium.

I participated with the group that discussed the first of these topics. Howard Brown and I described rather thoroughly the AEC program and the problems that are facing us.

Following the three individual group discussions we all assembled again and the discussion leaders of each group--Harry G. Slater for the first group, Robert D. Allen for the second group, and Kenneth D. Nichols for the third group--gave short reports. There was then some general discussion and as a concluding item, I made some short remarks covering the public controversy over the environmental effects of nuclear power reactors, the appearance of Lamont Cole and Larry Bogart and so forth at the Senate Appropriations hearings yesterday, and my impressions of the value of the meetings between the AEC and the AIF. Following this there was the cocktail hour which I attended, which was followed by a dinner which a number of the participants attended but which I did not attend.

I took a hike with Suki in Rock Creek Park, along the White Horse Trail to Cross Trails No. 3 and 4 and back on the White Horse Trail to our starting point at Oregon and Nebraska Avenues.

Helen held a meeting of the junior staff of INCAP at our home. The fall program of Saturday morning sessions of INCAP will start on Saturday.

Friday, October 17, 1969 - Germantown

At 10 a.m. General Giller dropped in. He said he wanted to very strongly recommend Norris Bradbury for the Fermi Award. I explained to him we have a problem in that the BOB wants us to limit the recipients to early (interpreted as pre-war) nuclear giants. We have Bradbury very much in mind, however; we will try to overcome this BOB restriction. Giller also told me (as Bradbury has in the past) that Bradbury intends to retire next summer.

At 11:35 a.m. I met with Chip Bupp, Dick Hewlett, and Woodie McCool. Bupp gave me a progress report on his historical project in which he is going to describe the budgeting of various programs in the AEC as part of his graduate thesis program at Harvard. He has the support of Don Price,

Dick Neustadt, and others at Harvard. He intends to feature the Plowshare program, the reactor program, and the high energy physics program.

At 12:10 p.m. I had lunch in the cafeteria with Julie Rubin, Justin Bloom, Myron Kratzer, and Edwin Spingarn to discuss the follow-up to my European trip.

At 1 p.m. I presided over Information Meeting 953 (notes attached). We discussed the forthcoming press release describing the White House decision on the future of uranium enrichment plants. A serious problem has arisen here in that George Murphy of the JCAE staff has called to demand that AEC staff come up to the Joint Committee to discuss this press release with them. The press release had been sent to the Joint Committee preparatory to a meeting between Flanigan's White House group and the Joint Committee next Wednesday. Since it obviously is not proper to discuss a pending White House paper with the Joint Committee, we asked Commissioner Johnson to discuss this with Congressman Chet Holifield (both are at the Waltz Mill reactor dedication) with the unsatisfactory result, we learned later, that Holifield indicates that he is going to insist on this kind of a confrontation between the Joint Committee and the White House. This, of course, will involve the AEC in a difficult position.

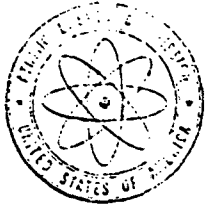
We also discussed Congressman John D. Dingell's (Michigan) letter of October 10, 1969, to the Commission, in which he demands that the ecological research which the AEC is carrying on in connection with Amchitka be the responsibility of the Department of Interior. This apparently involves a sort of jurisdictional dispute between Dingell and the JCAE with the AEC caught in between. I shall call Under Secretary Russell Train to see whether we can come up with a resolution of this.

At 3 p.m. I spoke to about 70 AEC interns in the auditorium. I described their importance to the AEC, the importance of the AEC's program and its future prospects and then answered a number of questions. Also present were Commissioners Ramey and Larson, who answered questions, as well as Bob Hollingsworth, Harold Price, John Vinciguerra, and Donald Bostock. (See picture page 327.)

The Information Meeting was continued after the meeting with the interns. At the end of the Information Meeting, at 5:10 p.m., we had an executive session (adjudicatory) to review the initial decision granting a provisional construction permit to the Consolidated Edison Company of New York for Indian Point Nuclear Generating Unit 3 (summary attached). We decided to have Commissioner Thompson review this for us in detail when he returns from South America. (Commissioner Thompson is in South America to participate in the opening of the Atoms-in-Action exhibit in Sao Paulo, Brazil, today, and will visit Argentina, Venezuela, and Columbia before he returns at the end of next week.)

At 4:10 p.m. I called Walter H. Zinn (Vice President, Combustion Engineering, Inc., Windsor, Connecticut) to tell him confidentially that he has been selected to receive the 1969 Fermi Award. He was very surprised, and expressed himself as being very honored and particularly pleased since the award bears Fermi's name. I asked him to keep this information confidential until we've arranged to make the announcement.

ENCL. BY DOE
NOV 86



UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

COPY NO. 3
October 17, 1969

INFORMATION MEETING 953

1:10 p.m., Friday, October 17, 1969, Room A-458, Germantown Headquarters

1. Mr. Kratzer's Oral Report on the Status of Proposal for Cooperation with the Europeans on Gaseous Diffusion Plants
2. Schedule for Commissioners' Discussion of Revisions to Part 20

Mr. Price will submit a draft next week and Commissioner Ramey suggested early discussions. (ADRA-SECY)

3. Mr. Price's October 15 Memorandum re Annual Meeting of Agreement States
4. AEC 1318/17 - Outline of AEC Presentations at JCAE Hearings on Environment

Mr. Biles discussed briefly the revised schedule and Commissioner Ramey requested further discussion with the JCAE staff. (Congr. -BM)

5. Commission Liaison with the National Laboratories and with the Federal Radiation Council

Commissioner Larson is designated. (SECY)

6. Commission Liaison with the National Accelerator Laboratory

Commissioner Thompson is designated. (SECY)

7. Distribution of Advance Copies of Volume II of the AEC History

8. 1969 Enrico Fermi Award

The Chairman reported the President's approval. The ceremony will be scheduled in San Francisco on December 2, 1969. (SECY)

9. 1970 Ernest O. Lawrence Award Ceremony, Lawrence Hall of Science, Berkeley, California

To be scheduled. (SECY)

10. Reappointment of Dr. Bush to the ACRS

Approved subject to a check. (SECY)

11. Agenda for the Week of October 20, 1969

Approved. (SECY)

12. NTS Events (See General Giller's October 16 Memorandum)

Noted. (AGMMA)

13. Report on Test Plans

Requested. (AGMMA)

14. Arrangements for AEC Citation Ceremony at Oak Ridge, October 20, 1969 (See Secretary's October 16 Memorandum)

Noted.

15. AEC 459/105 - Organization for Uranium Enrichment Activities; and, Mr. Quinn's October 15 Memorandum re White House Position on Uranium Enrichment

To be discussed with Mr. Peter Flanigan, White House. (Rubin-AGMP&P)

16. AEC 180/63 - Letter to Senator Church on 1966 NAS Report on Waste Disposal

Approved with a change. (AGMO)

17. Oral Report on Plutonium Shipments to Rocky Flats
18. Congressman Dingell's Letter of October 10, 1969, re Amchitka
To be discussed with Department of Interior Officials. (AGMMA-Rubin)
19. NBC Request for Interview with General Giller
The Commissioners are to be kept informed. (AGMMA)
20. AEC 280/55 - October 13 Letter from GSA
Staff will prepare a response. (AGMA)
21. Special Personnel Tests
Approved with a request. (AGMA)

3:05 p. m.

4:05 p. m.

22. AEC 943/49 - Special Analytic Study 68-E "Reactor Safety"
Approved with substitution of short for long summary. (RDI)
23. AEC 956/32 - Broad Laboratory Study
Approved. (AGMRD)
24. AEC 132/156 - Personnel Item
Approved. (R/PER)
25. AEC 20/225 - Draft Speech on Uranium Supply and Demand
Approved with revisions. (RM)
26. AEC 610/191 - Gas Centrifuge Program
Noted. (P)
27. AEC 997/114 - AEC/Industry Liaison on Implementing Residential Safeguards Office
Noted. (SMC)

28. AEC 156/37 - Report on 130th Meeting of Advisory Committee for Biology and Medicine
Noted with a request. (EAGM)
29. Pending Contractual Matters - Report Number 330
Noted. (PAR)
30. AEC 811/276 - Sturtevant: Possible Contingency Plan
Further consideration and report by Mr. Kelly were requested. (PNE/SECY)
31. AEC 1309/17 - MILROW: Proposed Release of Preliminary Report on Effects
Approved as revised. (PI)
32. General Counsel's Report on HR-14119 Requiring Clear Title in the Federal Government for Any Land on Which Federal Facilities are to be Constructed
33. Status of Coordination on Muskie Bill

W. B. McCool
Secretary

5:00 p.m.

PRESENT

COMMISSIONERS

Chairman Seaborg
Commissioner Ramey
Commissioner Larson

STAFF

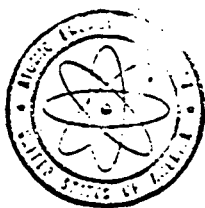
Mr. Hollingsworth
Mr. Bloch
Mr. Hennessey
Mr. O'Donnell
Mr. Spurgeon
Mr. Abbadessa
Mr. Kull
Mr. McCool
Mr. Kratzer*
Mr. Price*
Mr. Henderson*
Mr. Brown*
Dr. Biles*
Mr. Crawford*
Mr. Erlewine*
Mr. Quinn*
Gen. Giller*
Mr. Vinciguerra*
Mr. Shaw*
Mr. Buck*
Mr. Schleiter*
Mr. Strauser*

DISTRIBUTION

Commissioners
General Manager
General Counsel
Secretary

Mr. Harris*
Mr. Hubble*

*Attendance by Topic(s)



UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

UNCL BY DOE
NOV 86

October 17, 1969

File

D. C. RECORD COPY

EXECUTIVE SESSION (ADJUDICATORY) DISCUSSION OF CONSOLIDATED EDISON COMPANY
OF NEW YORK (INDIAN POINT NUCLEAR GENERATING UNIT 3), DOCKET NO. 50-226

SECY:WLW

At 5:10 p.m. on October 17, 1969, Chairman Seaborg and Commissioners Ramey and Larson met in Room A-458, Germantown Headquarters, to discuss the matter of Consolidated Edison Company. The Commission agreed Mrs. Weik's protest is a properly taken appeal and deferred action on the question of Iodine removal. Commissioner Ramey suggested examination might be made of the reasons which caused the licensing procedure to be more lengthy. (GC/Solicitor)

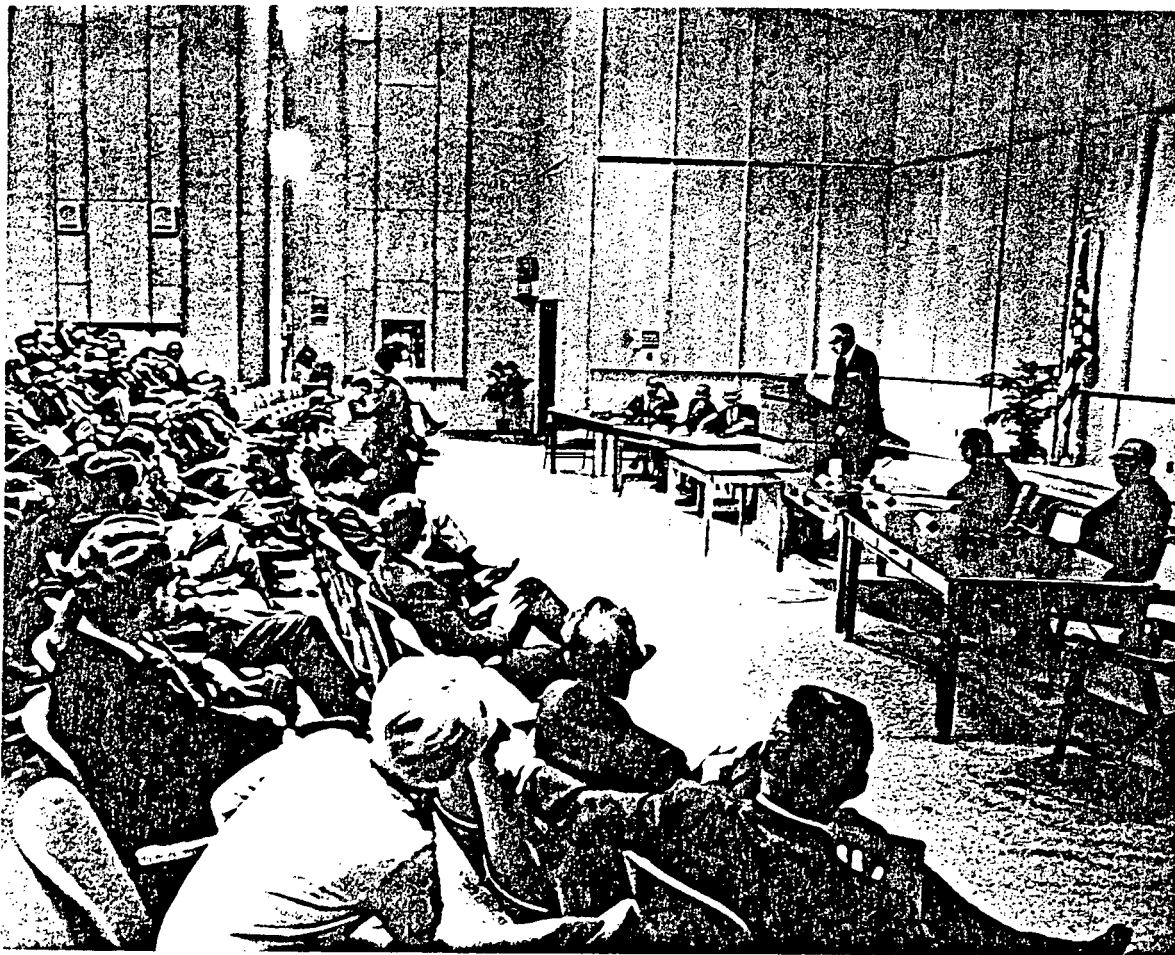
Staff present for this session were Messrs. Hennessey, Hobbs, Rowden, Rubin, Spitzberg, O'Donnell, and Wells.

F. T. Hobbs for

W. B. McCool
Secretary

cc:

Chairman Seaborg
Commissioner Ramey
Commissioner Johnson
Commissioner Thompson
Commissioner Larson
General Counsel
Solicitor



Meeting with AEC interns, Germantown Auditorium; October 17, 1969.

I also said that we are thinking of having the presentation ceremony in San Francisco, on December 2, 1969, during the AIF/ANS meeting. He said that would be fine inasmuch as he is planning to attend the AIF/ANS meeting.

At 7 p.m. Helen and I attended a reception in honor of Sir Philip Baxter, Chairman of the Australian AEC, given by Atomic Energy Attache and Mrs. Michael Farrell at the Australian Chancery (1601 Massachusetts Avenue, N.W.).

Saturday, October 18, 1969 - D.C. Office and Home

I worked at the D.C. office until about 1 p.m. I then had lunch at the Paramount restaurant on 18th Street with Allan Labowitz and Julie Rubin. We discussed the progress of the SALT talks. Apparently there has been a discussion within the administration concerning the verification aspects by a group other than the steering committee (of which DuBridge and I are members). There is a serious difference of opinion between DOD and the CIA on this and participation in the talks is being limited at the President's direction, as implemented by Henry Kissinger, to representatives of DOD, CIA, JCS, and ACDA. It seems likely that DuBridge and I are being bypassed due to the strong stand that we took in favor of the SALT talks at the meetings of the National Security Council last June--the President seemed a little displeased at this at that time.

I sent letters to Congressman Holifield, Dr. Walter Zinn, and Howard Vesper regarding Walter Zinn as the recipient of the Fermi Award.

Today was the first day of INCAP and Helen attended in her supervisory role on the Board of Directors, while Eric attended as a member of the junior staff and Dianne as a participant.

Eric and I played nine holes of golf at the Chevy Chase Club. Eric shot 66 and I shot 53.

Dianne's friend, Amy Ballou, spent the night here with her.

Sunday, October 19, 1969

Helen, Eric, Dianne, and I went to Kennedy Stadium to see the football game between the Washington Redskins and the New York Giants. The Washington Redskins won on the basis of a 86-yard run by Ricky Harris, by a score of 20-14, after being behind 14-0.

I worked on my talk for the Welch Foundation Symposium "From Mendeleev to Mendeleevium - And Beyond," scheduled for November 17, and on my talk for the meeting of the American Nuclear Society in San Francisco, "The Synthetic Actinides - From Discovery to Manufacture," scheduled for December 2, 1969.

Monday, October 20, 1969 - D.C.

At 11:10 a.m. I met with Fred Albaugh (Director, Pacific Northwest Laboratory), first alone and later in the presence of Julie Rubin and Justin Bloom, to hear his description of the continuing problems he is having with Milt Shaw in getting the FFTF built within the authorized cost figure. Shaw is continuing to insist on giving detailed directions to the Battelle group and is insisting on including facilities that can't be afforded within the cost limit. On Thursday there will be a meeting of the Task Force involving Battelle and AEC people to discuss this; on Friday, a meeting will be held by the Bechtel design people and Westinghouse representatives to discuss it further with the ultimate aim of trying to find a resolution to the dispute.

At 12 noon I attended a luncheon meeting with officials of the Export-Import Bank on the 12th floor of their building at 811 Vermont Avenue. Others present included: Henry Kearns (President, Export-Import Bank), Walter Sauer (First Vice President), Henry Rowntree (Executive Vice President), Don Bostwick (Vice President, Planning and Export Expansion), Alex McCullough (Director), Tom Lilley (Director), Commissioners Ramey and Johnson, Myron Kratzer, Walter Munster and Julie Rubin. We met briefly in Kearns's office and then proceeded to their private dining room. During and following the luncheon, Kearns described some of the Bank's activities of interest to the AEC. These included an inquiry by Greece for a loan for a nuclear power plant which the Bank is not too enthusiastic about because Greece already has incurred debts at about 18% of their foreign exchange income which is at the upper limit of economic stability.

The recent special offer for South Korea was noted and Kearns mentioned that private sources indicated the U.S. will likely win this competition for the sale of a nuclear power plant with the British. He was particularly complimentary of the analysis of nuclear power projects by Taiwan and their well-organized way of doing business. Brief mention was made of past and possible future financing for nuclear power projects in Brazil and Argentina. In discussing possible interest in nuclear power by Yugoslavia and Romania, Kearns stated present legislation prohibits their entering into loans with Communist countries other than Yugoslavia.

The problem of Finland seeking U.S. help in safety evaluation of their Soviet reactor was noted and the extreme pressure placed on the Finns by the Soviets to buy their reactor instead of the one from the U.S. The possible problem of South Africa wanting to purchase and finance a U.S. nuclear reactor was mentioned. A general comment was made that many countries including Australia, that have a strong preference for natural uranium reactors, might be taking a second look because of technical difficulties encountered by these projects to date. The discussions closed with an invitation by Kearns to keep them informed as we have in the past of nuclear projects they may be asked to finance. Some projections of the nuclear power growth in Europe through 1980 were offered.

From 3:30-4 p.m. I met with John Palfrey, Spof English, Bill Oakley, Allan Labowitz and Julie Rubin. Palfrey wanted to urge me to go ahead with the cratering version of the STURTEVANT shot. He pointed out that our success with the MILROW and RULISON shots should establish our credibility with the public. I indicated that the fact that STURTEVANT, which has no connection with national defense, would be planned to give rise to venting would add a new dimension to the potential public controversy. I said that therefore the Commission is inclined to go back to the original plan to have STURTEVANT as a completely contained device development test to be followed by an excavation shot later, depending on the public climate.

I sent a letter (copy attached) to Elliot L. Richardson (Chairman, NSC Under Secretaries Committee) requesting a simplification in procedures concerning the authorization to conduct certain underground nuclear tests.

Tuesday, October 21, 1969 - D.C.

At 10 a.m. I met with Dr. William Johnston (President) and Dr. Charles E. Waring (Chief Licensing Negotiator) of Scientific Research Instruments Corporation, Baltimore. They told me that they have arranged a license for Hodogaya Chemical Co., Ltd. of Japan for the production and marketing of Esso's sodium alkane sulfonate (SAS), a biodegradable detergent. This employs cobalt-60 in its manufacture, and they feel this will lead to the largest industrial use of cobalt-60.

I had lunch at the Longworth Cafeteria in the NSF Building with Julie Rubin, Stan Schneider and Bob Kaye after which we took a walk around the still boarded-in Lafayette Park.

I received a call from Governor Don Samuelson of Idaho who wanted to try out on me an idea concerning the MTR. His suggestion would be to take



UNITED STATES
ATOMIC ENERGY COMMISSION

WASHINGTON, D.C. 20545

OCT 20 1959

MAILED BY DOR
NOV 86

Honorable Elliot L. Richardson
Chairman, NSC Under Secretaries
Committee
Department of State

Dear Sirs:

The purpose of this letter is to request a simplification in procedures concerning the authorization to conduct certain underground nuclear tests. In the past two quarters the basic procedure has been as follows:

1. The Atomic Energy Commission formulates the test program on a quarterly basis and submits each quarter's planned program to the Under Secretaries Committee.
2. The Under Secretaries Committee reviews the program and submits its recommendations to Dr. Kissinger for White House approval.
3. White House approval is transmitted to the AEC.

We have always placed a rigid interpretation on the White House approval to conduct specific tests within a specific time frame. Hence, approved tests which may be scheduled for execution late in the quarter, and which for operational or technical reasons cannot be conducted prior to the end of the quarter, are considered to have lost authorization until either approval of the next quarter's program or special approval of the individual tests is received. Recently, the approval for instituting the quarter's program has not been granted until well into the quarter, requiring a number of last-minute communications among the field agencies, the AEC Headquarters, and the Under Secretaries Committee to obtain special approval for tests which had narrowly missed being ready at the end of the preceding quarter. This procedure makes costly delays of such tests pending their authorization on a case-by-case basis.

To avoid repetitions of this situation, we propose that once a test has been approved by the White House, this approval would be effective throughout the following quarter unless specifically withdrawn. The status of tests approved but not yet executed would be reported in the AEC's quarterly letter to the Under Secretaries Committee requesting approval of the new program. We believe that this procedure would permit more orderly progress of the underground nuclear test program without diluting the controls exerted by the White House and the Under Secretaries Committee.

Cordially,



Chairman

over the reactor through the Idaho Nuclear Energy commission, and then hire a man who would have sole responsibility for taking charge of the reactor, and they would go to other universities, and even private industry, and ask them to buy, under a 2- or 3-year contract, the use of one of the beam holes (for \$100,000 per year from each institution), and in this way see whether they could get money to operate the MTR under present management. He talked to Bill Libby and to his "Board" and they all thought it warranted looking into. I said I would be less optimistic than he about being able to raise that much money--about \$2 million per year. He said he had heard that it was \$1.8 million. I said I would check on that figure. I explained that our budget situation is tighter than ever. I said if he wants to look into this possibility, we would certainly consider it. If they decide to go ahead with the studies, he suggested that the Board, Mr. Rutledge, and he would like to get together with me when I might be in Idaho, or here in Washington. I suggested the latter would be more feasible. I asked that he send us a letter with the actual proposal if they decide to try this route, and he agreed. I, in turn, said that if I get a better fix on the cost figure, I will let him know.

At 5:45 p.m. Commissioners Ramey, Johnson, Larson and I met with Peter Flanigan and C. Thomas Whitehead (White House). Others present were the General Manager, Julius H. Rubin, John P. Abbadessa and George Quinn. I opened the discussion by thanking Flanigan for coming over to meet with the Commission to discuss the recent Administration decision on future operation of the enrichment plants. I noted that some of the Commissioners have certain problems with this decision and I think the best way to proceed will be to have those present raise any questions they might have.

Before the first question, Flanigan thanked the Commissioners for their assistance in developing information leading up to this decision and expressed pleasure that there was unanimous agreement.

Ramey took issue with Flanigan's statement about unanimous agreement and indicated the Commission policy decision supports disposal of the plants by 1979 or even as late as 1985, and not in the 1972-1973 time frame. Flanigan explained his statement on unanimous agreement was that the plants were a logical commercial part of our power system and should be disposed of at some point in time. The decision by the President was one of disposal now or later, and since the President's decision was later, there was no timetable considered. Flanigan added he was quite surprised to hear that there was any conclusion or concern that the Administration's decision included an early disposal of the diffusion plants. Ramey commented this was certainly reassuring.

Flanigan repeated that any future consideration of disposal of the enrichment plants would be subject to discussions by the White House with the AEC, the JCAE, and other interested organizations.

Ramey stated the separate directorate suggested by the Administration seemed to imply a plan for early disposal of the plants. Flanigan stated the AEC would be responsible for the separate directorate and implied any early plan of disposal would be our own doing. Ramey noted a number of drawbacks to the separate directorate that would not be present with a government corporation and the AEC-recommended position of financing

through reapplying revenues and bonding authority. He specifically mentioned that separate contracting would increase the cost of operation and add to the AEC management staff. I agreed with Ramey that there may be a need for added AEC staff in an entirely separate directorate.

Flanigan expressed hope that there would also be some savings in this new type organization and further added that their guidelines were not intended to be so rigid that additional people or automatic increased operating costs resulted.

Johnson stated it is impossible to run the separate directorate as a business operation because of having to go to the Congress for appropriations. This, in effect, would not permit the Commission to evaluate performance of management of the diffusion plants because of possible errors in judgment through the appropriations process.

Flanigan explained that the Administration had made a careful decision in this case and also others and decided that all government functions would fall under the unified budget concept. This meant all financing would have to be undertaken within the overall Administration budget ceiling of some \$192 odd billion. There was some discussion related to TVA's method of operation, but it was not clear from those present whether TVA had the independent authority for applying revenues and borrowing funds that the Commission is seeking.

Johnson stated a personal view that operation of the diffusion plants is clearly something that should be in the private sector and the only question is timing. With the plants presently operating at only 40% capacity, it would be difficult to establish a realistic sale price at this time. Johnson also noted that no private company would want to invest in the diffusion plants without access to the technology on the gas centrifuge.

I emphasized to Flanigan that the results of gas centrifuge technology indicate it would now economically compete with the gaseous diffusion process if the reliability and capital cost projections are proved accurate by sufficient testing. This conclusion is based on data not available three months ago and reflect the changing state of this technology. In answer to Flanigan's question as to how long it would take to obtain the reliability data, Johnson stated it would be at least three years and possibly five.

I noted that there is some disagreement within the Commission about the degree of secrecy necessary for gas centrifuge technology and expressed a personal position that we may be better off with less secrecy. Johnson added that he favors some form of licensing now for private companies to obtain access to this information.

Johnson stated that he has carefully reviewed the AEC cost accounting system for the enriching operations and is convinced our price is accurate and fair. He noted it would be difficult to convince the public of this and hence he favors an entirely separate organization. He stated under the present accounting system we could justify an increase in cost of separative work to \$27.67 based entirely on escalation but any increase above this level would be arbitrary and not consistent with our present costing policy. Ramey noted that any change in cost principles would have to be approved by the JCAE.

Johnson stated he would favor a separate contract for each of the three plants and also separate labor unions at each location in order to avoid the entire enriching industry being dominated by one union. Larson noted one union represented all three plants under the present arrangement and Flanigan stated it is also true for steel and many other major industries in this country.

Flanigan briefly summarized at this point that we all seemed agreed on the goal of disposing of the plants at some future time to private industry. He restated the need for any financing staying within the unified budget and made it clear that he recognized the shortcomings and problems related to having to go to the Congress for appropriations.

Johnson stated extreme care would have to be taken in establishing a sale price for the plants in order to avoid the political accusation of a giveaway. The same comment related to any substantial increase in the price of separative work at this time. Flanigan suggested an opposite situation could occur where a low price and low value for the plants established now could result in eventual takeover by private companies and an early rise in the price with an accusation of making a killing under the commercial arrangement.

I stated with regard to price we would have to recognize the foreign competition and referred to a cable that had been sent to Whitehead indicating the Dutch are assuming they could not meet our \$26/kg charge for separative work but seemed confident they could compete with a \$30 figure. Whitehead indicated he had not seen the cable and I gave Flanigan another copy.

At this point questions were raised about the effect of a change in interest rates on the cost of separative work. Abbadessa and Quinn, who were standing by, entered the meeting. The only question asked was what effect a 1% lower interest rate on the debt would have on the cost of separative work. Quinn stated it would be on the order of 40¢-50¢ per kg of separative work for every 1% change in the cost of money. This answer was based on the assumption that the plant would be financed by 50% debt and 50% equity.

Flanigan repeated that the guidelines provided by the White House staff are not inviolate and implied that the detailed operating plan developed by the Commission is subject to further negotiation.

Hollingsworth stated for Flanigan's information that the JCAE staff director and deputy director had contacted the Commission to question various phases of the Administration position. He stated we have resisted their request for direct meetings on this subject unless members of Flanigan's staff were present. There appears to be some indication that there will be opposition to the Administration position when Flanigan reviews it with Holifield tomorrow. Abbadessa also noted that he has been contacted by the GAO auditor working with the Joint Committee on this subject but has resisted any discussion of the subject until after the meeting of Flanigan with Holifield.

Larson commented that he thought the concern by the JCAE staff is based on an emotional conclusion that the White House plan is intended to permit early disposal of the enrichment facilities to private industry.

Ramey stated that there had been very few occasions in the history of the AEC when the White House had found the need to direct them to do something. He thought the prestige of the Commission and its relationship with foreign customers and U.S. industry should be protected. He suggested some statement in the White House press release indicating the Commission had performed in an outstanding manner in managing the diffusion plant operation.

Flanigan agreed this could be included and also stated that the Commission could issue a simultaneous press release amplifying on details that may not be included in the press release issued by the White House.

Ramey raised the question about charging the DOD for the full cost of separative work under the new pricing formula and stated if other agencies were required to budget for this service it would in effect dismember the AEC and put us out of business. Flanigan assured him that there is no intent of dismembering the AEC and that he considers charging the full price of service to other government organizations as a bookkeeping transaction.

The discussions were concluded at this point and I walked to the front desk with Flanigan and Whitehead. Along the way I agreed to meet with Flanigan about 3 p.m. on October 22 for some further discussion on the way to meet with Holifield.

Helen left this morning to spend a couple days with Lynne and Bill so I picked up some Pappy Parker chicken dinners at the Hot Shoppes on the way home for Eric, Dianne and me. After dinner, about 8:15 p.m., Eric dropped in to the study and told me that he had just remembered that this was Parents "Back to School Night" at Woodrow Wilson High School and indicated that he would like me to go. I got there in time for the third period where I met Mr. Toxie, his algebra teacher, who said that Eric is doing fine. I then went to his fourth period class where Mrs. Cunningham, his French teacher, said that he is "a brilliant student." During his lunch period I talked to Mr. and Mrs. Stults (she is a former member of the School Board). I attended his sixth period class where Mr. Malvey described the health course, and his seventh period class, where I talked to Mrs. Woodson, his chemistry teacher, before she gave her presentation. She told me that she had introduced Chem Study this year for the first time at Wilson over considerable opposition from the Wilson Administration. She said Eric is doing fine. She gave a good explanation of Chem Study to the parents present.

I sent a letter to Congressman Holifield (copy attached) today in reply to his letter of September 15, concerning the Federal and State court suits recently instituted in Minnesota by the Northern States Power Company.

I sent my biweekly report on significant developments in the atomic energy program to the White House today (copy attached).

Wednesday, October 22, 1969 - D.C.

In Helen's absence Eric, Dianne and I prepared our breakfast.



UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

UNCL. BY DOE
NOV 86

OCT 24 1959

Honorable Carl Wolzfeld
Chairman
Joint Committee on Atomic Energy
Congress of the United States

Dear Mr. Wolzfeld:

Thank you for your letter of September 15, 1959, concerning the Federal and State court suits recently instituted in Minnesota by the Northern States Power Company, raising the question of whether individual States have jurisdiction to regulate radioactive discharges from nuclear power plants.

As we advised in our letter to the Joint Committee of September 5, 1959, the matter of Government participation in the Minnesota litigation has been discussed with the Department of Justice; and we have briefed the Department on the bases for the Commission's position, and that of the Joint Committee, respecting exclusive Federal jurisdiction to regulate in the subject regard. In the latter connection, we have furnished the Department a copy of your letter of September 15, for its further background information.

The State of Minnesota, I am advised, has not as yet filed its answers in these lawsuits formally setting forth the State's position; and no determination has been made by the Justice Department as to the role, if any, which the Government should play in the litigation. We expect a decision on the latter point shortly and will notify the Joint Committee as soon as a determination has been reached.

I think it important to add that the Commission certainly shares your belief that something more than a purely legal solution to the subject controversy is called for and that the public must be more directly apprised of the adequacy of the safety measures taken as regards nuclear plants and of the environmental advantages which these plants afford.

Honorable Chet Holifield

- 2 -

The Commission, as your letter recognizes, has been intensifying its efforts in this regard and I have asked our staff to prepare for your information a comprehensive report on the Commission's activities and future plans. We expect to submit that report to the Joint Committee very shortly.

Cordially,

(Signed) Glenn T. Seaborg

Chairman

AEC BIWEEKLY STATUS REPORT FOR OCTOBER 21, 1969

1. The 1970 AEC Appropriation Bill passed the House on October 8, 1969. At hearings by the Senate Subcommittee on Public Works Appropriations on October 15, the Commission requested that House cuts be restored to provide \$5.5 million for operating the K-reactor at AEC's Hanford Works in Richland, Washington; \$25 million (of \$32 million cut) for construction on the National Accelerator Laboratory project in Batavia, Illinois; and \$7.5 million for capital equipment.
2. Representatives of the AEC, the Office of Science and Technology, Congress and other agencies participated in a symposium October 10-11 at the University of Minnesota on "Nuclear Power and the Public." The symposium afforded an opportunity for a full discussion of the issues involved in the growth of nuclear power, including environmental considerations. Between 500 and 1,000 persons attended the sessions, including state officials, conservationists, university students and representatives of the nuclear industry.

Two community meetings to discuss nuclear power are planned this week in Vermont, October 23 at Brattleboro and October 24 at Bennington. These are follow-up meetings to the conference held September 11 at Burlington which was sponsored by Senator Aiken and Governor Davis.

3. During the first three quarters of 1969, plans for four additional nuclear power plants with a total capacity of 4,029 megawatts were made known by public utilities. For the same period in 1968, 16 plants with 14,912 megawatts capacity were announced. As of September 30, the status of nuclear power plants and their capacity was as follows:

15 operable	3,852 megawatts
48 under construction	37,689
41 planned	36,830
<u>104 Total plants</u>	<u>78,371 Total megawatts</u>

4. The nuclear-powered SNAP-19 radioisotopic generator system on NASA's Nimbus III weather satellite (which was launched last April) has now operated successfully for six months. This is the first civilian use of nuclear energy in space.

Nuclear power gives satellites longer and more useful lifetimes than are possible with other energy systems. The radioisotopic generator on the Nimbus III earth satellite also helps to demonstrate the vital importance of nuclear power for missions to the moon and beyond.

5. An AEC Atoms-In-Action Nuclear Science Demonstration Center opened in Sao Paulo, Brazil, on October 17, with Commissioner Thompson and the Acting Director of Brazil's National Nuclear Energy Commission participating in the opening ceremonies.
6. AEC is currently receiving inquiries from private industry as to the implications of an AEC-sponsored proposed amendment to the Atomic Energy Act that would define more clearly AEC's authority to produce and sell radioisotopes. In cases where the demand for certain radioisotopes might exceed the production capacity of private industry to supply them, the proposed amendment would clarify AEC's authority (1) to produce and sell such radioisotopes on a commercial scale, and (2) to satisfy commercial radioisotope requirements for which a private production capability had not yet developed. Although the amendment is intended to enable AEC to complement - not compete with - private production of radioisotopes, some private firms have expressed concern that its effect would be to permit AEC to reenter the commercial market on a competitive basis.
7. The 15th General Conference of the International Atomic Energy Agency (held September 23-29) approved the following: (1) the appointment of Dr. Sigvard Eklund as Director General for a third four-year term; (2) the 1970 budget as recommended by the Board of Governors; (3) a resolution endorsing the Board of Governors' report on the Agency's responsibilities to provide services in connection with nuclear explosions for peaceful uses, with the request that the Director General and the Board of Governors continue studies in this area; and (4) a U.S.-sponsored resolution requesting the Board of Governors to make every effort to present to the 1970 General Conference a draft proposal for revision of the Board's composition.
8. Agreements between the USSR and Finland relating to the purchase of Finland's first nuclear power plant extend 20-year credit at 2 1/2% repayable in goods, and include delivery guarantees covering delays that are comparable

to those offered by suppliers in Western countries.

9. As a result of the 1969 annual medical survey of Marshall Islanders accidentally exposed to radioactive fallout from a bomb test at Bikini in 1954, five patients with thyroid abnormalities were brought to the U.S. for a month-long visit during last August and September. Thyroid surgery was performed, revealing two patients with benign thyroid nodules, two with low-grade cancerous growths in the thyroid (one of which may not be related to radiation exposure), and one with an active thyroid malignancy. The surgery was successful in all cases. The Marshallese people exposed to radiation from this test have a higher than normal incidence to thyroid abnormalities that is believed to be the result of radioactive iodine in the fallout.
10. Volume II of the history of the Atomic Energy Commission will be published on November 1. Entitled Atomic Shield: 1947-1952 and written by AEC staff historians, it describes the establishment of the AEC and subsequent developments in the atomic energy program during the Truman Administration. (Volume I deals with the 1959-1946 period.)
11. The French Government's atomic energy agency has announced the formation of a commercial group to sell uranium. There are indications that the amount of uranium that will become available for the group to sell would place France among the world's largest suppliers of uranium.
12. As part of the AEC-sponsored economic diversification program being carried out by private industry in the Hanford area of Washington State, a \$3 million hotel-convention-resort facility (called Hanford House), which was built at Richland by Atlantic Richfield Company, was recently opened. Senator Jackson spoke at the dedication ceremony on October 6.

Fritz Weigel of the Institute for Inorganic Chemistry of the University of Munich dropped in to see me in the company of V. V. Hendrix of DIA. Weigel had worked in my group at Berkeley around 1956, and he is in this country to attend the Welch Foundation Conference on the Transuranium Elements and to visit a number of laboratories. He gave me some reprints and asked that I write a letter of recommendation to Professor Armin Weiss in connection with his possible promotion to assistant professor.

I met with Dr. Bert Wolfe (Associate Director, PNL) and T. W. Nemzek (Associate Director, RDT, in the AEC office at Richland). Julie Rubin was also present. This meeting was arranged at the request of Bob Hollingsworth to introduce Wolfe as the new senior Associate Director of the Battelle Pacific Northwest Laboratory. His main responsibility will be essentially project director for the FFTF. I stated that we have a serious problem and this was readily acknowledged by both Wolfe and Nemzek. They also both acknowledge the purpose of their recent transfer to Richland was to try to solve this problem. Wolfe stated he thought many of the criticisms of Battelle and RDT were unwarranted. These were explained as failures attributed to Battelle which, in his view, were not due to inadequate staffing and management but rather to less than clear direction and authority. Wolfe reported that many rumors by working level Battelle people to the effect that many RDT requirements placed on Battelle are just to make them look bad are equally unfounded. Wolfe stated that decisions referred to RDT in Washington were frequently at a level that in GE would be made by 3rd level engineers. He also commented that many constructive suggestions by Battelle to RDT were not evaluated and were rejected because Milt Shaw considered decisions to change the scope of the project entirely his responsibility.

A general observation offered by Wolfe was that RDT does not have sufficient numbers of qualified people to manage the FFTF project in the manner Milt Shaw requires. I made it clear that regardless of the reason, failure of this project would reflect directly on Milt Shaw and Battelle management. Nemzek described the task force being assembled to review the total project with an objective of scoping what could be accomplished within the roughly \$90 million available. Both Wolfe and Nemzek indicated an FFTF could be constructed for this figure with the original basic specifications but not necessarily including all of the features presently required by RDT (i.e., isolation of coolant loops, spent core inspection facilities, fully tested and proved components, and the refueling system proposed).

Wolfe stated that Battelle is presently in an impossible position in that they have an ill-defined charter and RDT's close supervision of the work is not realistic. He offered examples of RDT's sending directives to Battelle which included criticism of their work and performance with copies of the correspondence sent to Westinghouse and Bechtel. Wolfe also noted that RDT frequently corresponded directly with their subcontractors. This general method of operation undermines Battelle's authority and makes it practically impossible to control Westinghouse and Bechtel work, for which they have been criticized in the past. The number of written directives to Battelle from RDT this year number 1,354, which indicates the degree of detailed supervision. With regard to Westinghouse, Wolfe stated they do not have sufficient experience in liquid metal work to do this complete job. RDT urges, nevertheless, that Westinghouse be used to a maximum extent in order that they could gain experience in this field.

Wolfe stated that suggestions that Battelle perform certain tasks because of existing experience rather than giving the work to Westinghouse have been criticized. I asked Wolfe and Nemzek if the General Manager is aware of their comments made to me and they acknowledged that he is. They also stated the same statements will be made to Milt Shaw in a scheduled meeting with him tomorrow. I asked that they arrange to tell this same story to Commissioners Johnson and Ramey and they indicated plans to do this if they could obtain an appointment.

I had lunch with General Elwood R. Quesada in the restaurant located in the arcade area of L'Enfant Plaza. With the help of models he showed me the layout for the entire Plaza and took me on a tour of the arcade and shop area. During lunch we discussed sports mainly, an area of mutual interest, particularly the CBS-TV show last night on the 100th anniversary of football. He also mentioned the fact that General John J. McConnell, who has retired as Chief of Staff of the Air Force, would be interested in a position with the AEC, perhaps on some advisory committee. He told me that there will be 640,000 square feet in the new building going up on the Plaza and suggested that the AEC might be interested in renting space.

Carl Thomas, who has just returned to the State Department after serving for four years as the U.S. Consul General in Antwerp, came by to say hello. He was accompanied by Myron Kratzer.

At 3 p.m. I met with Peter Flanigan in his office prior to his meeting with the JCAE regarding the White House study on the future of the AEC's uranium enrichment plants, and then rode with him to the Capitol. I described to him some of the background of suspicion in the Commission and the JCAE regarding this study. This suspicion has to do with the possibility that this study is only a camouflage for the early disposal of these plants to industry in a manner which could lead to another Dixon-Yates situation. There is even some suspicion that Flanigan might be involved in some disposal scheme, a suspicion that is based on Flanigan's Wall Street background and, therefore, his supposed bias in disposing of the plants below their true value to Wall Street interests.

I attended Flanigan's meeting with the Joint Committee in the JCAE offices (Room H-403), the Capitol, from 3:30 to 5:20 p.m. Others present included C. Thomas Whitehead (Staff Assistant, White House); Congressmen Chet Holifield and Craig Hosmer; Ed Bauser, George Murphy, and William England of the JCAE staff; Roger Sperry (GAO); Kenneth BeLieu (White House Staff Assistant); and Wayne Brobeck (JCAE Consultant). The session began with Holifield asking Flanigan to describe the status of the White House plan for the future of the uranium enrichment plants. Holifield and Hosmer had the White House talking paper of October 15, 1969, before them, and the discussion therefore proceeded on an almost item by item basis using this paper (copy attached).

After this detailed examination of the various assumptions under which the new AEC Directorate would operate, Holifield said that the Joint Committee would want to go into all of these facets deeply from the standpoint of their responsibility to Congress and the American people. He said that if we went ahead with the Directorate concept, the Joint Committee would want assurance that there would be money to go ahead with the Cascade Improvement Program (CIP). He said that the utilities need

October 15, 1969

ENCL. BY DOE
NOV 88

BRIEFING REPORT FOR THE JCAE

ON

URANIUM ENRICHMENT

SUMMARY

The AEC staff has conducted preliminary studies of the various segments of a program which will implement the President's decision regarding the organization of a separate uranium enriching Directorate within AEC. Based on these studies, we have concluded the following:

-- Using typical commercial criteria previously discussed with you, the charge for separate work under this plan is expected to be below the current \$31.68 ceiling and probably in the \$28 to \$30 range.

-- A program to implement the essential elements of the President's decision may be accomplished without the need for new legislative authority.

-- AEC is developing specific plans for establishing a separate Directorate under the jurisdiction of the Commission, and for necessary modifications of existing contractual arrangements.

DETAILS

As previously stated, the primary objective of establishing the separate Directorate is to insure that the uranium enriching complex is operated as nearly as possible as a commercial enterprise and that all costs of the

surprise are fully accounted for. An important question is what these costs are and what impact the new rules would have on the price of separative work.

The AEO staff has analyzed the book value for the complex and the change for separative work, using the following ground rules, in order to assure that the Directorate conforms to the usual pattern of private industry:

A constant debt/equity ratio of	50/50
rate of interest on debt	8%
rate of return on equity after provision for Federal Income Tax	13%
Total repayment of both debt and equity	30 years
Depreciation schedule for tax purpose	
Initial plant	150% declining balance
New capital investment (CIP/CUP)	Sum of year's digits over remainder of the amortization period
State and local taxes plus insurance	1 1/4% of initial plant value increased by CIP/CUP investment as incurred

With these assumptions, two methods of estimating the prospective change for separative work have been examined. In each case, the change for separative work was within the \$28 to \$30 range.

Method 1 - In this case, the July 1, 1970 plant book value of \$1,070 million was used, and appropriate provision was made for working capital, uranium feed as required to support the post July 1, 1970 preproduction, the cost of continuing preproduction "fly wheel," and an estimate of the increased cost of separate AEC and contractor organizations. The cost of the preproduction inventory on hand at July 1, 1970 is considered sunk cost and is not included in the initial capitalization. Applying the previously mentioned criteria, the estimated unit charge for separative work is about \$28.60.

Method 2 - This case uses the same ground rules, but from the point of view of the cost of a new plant. In this case, a plant having a capacity of 8,750 MT SW/year at a new site with a power cost of 4.5 mills-per KWHR was assumed. The estimated charge on this basis is about \$29.40.

-- The new Directorate will continue to be subject to Congressional and Presidential financial responsibilities and will be expected to charge other components of the AEC and other government agencies the ongoing rate for enriching services.

Our review of the details of the operations and organization of the new Directorate suggests that no new legislative authority is required unless it becomes necessary to establish a formal revolving fund. It is our understanding that the financial reports of the new Directorate can be constructed to show the true financial situation without the need for the

constraints of a formal revolving fund. For this reason, we would not propose the enactment of any new legislation to effect the changes resulting from the President's decision.

AEC has not developed a detailed plan for the creation of a new Directorate reporting to the Commission or of any changes in contractual arrangements. The objective, however, of separating the uranium enrichment effort from other AEC activities can be achieved in our view without any major perturbations.

this assurance or else they will go ahead and choose coal-fueled plants in preference to nuclear power plants.

Hosmer voiced his agreement with Holifield and added that when the Directorate concept is formalized the President should make a statement clarifying the Administration's intention on the CIP.

Flanigan responded by saying that this is a separate problem which will have to be faced whether or not the Directorate concept is adopted. Holifield took exception to this and stated that the government corporation or TVA type of approach would solve the problem of funding for the CIP. He emphasized that the Committee must consider its obligation to the taxpayers and to industry by assuring that there is proper future planning to provide the required capacity for the production of enriched uranium. Hosmer agreed and said that this whole business of administering the operation of the gaseous diffusion plants was raised by the JCAE because of the problem that had arisen with respect to funding for the CIP.

Flanigan said that he will look into the possibility of proposing something with respect to the CIP funding. He said, however, that he doesn't believe that a TVA-type of operation offers any solution to this. Holifield and Hosmer both disagreed, stating that they think TVA has the authority to use the income from its operation in a manner that gives them freedom to build new capacity. Flanigan pointed out the limitations on the autonomy of TVA in controlling their funding brought about by the congressional ceiling on spending (\$192.8 billion this year); he said that this means that the net of their operations is subject to the ceiling and normal budgetary review and this gives TVA a problem in raising some forty million dollars during the present fiscal year.

Sperry described the TVA funding authority and said that traditionally such a government corporation has more flexibility in making capital improvements and, therefore, the government corporation concept for AEC operation of the diffusion plants would give industry greater assurance than the presently proposed Directorate concept.

Holifield added that it should be recalled that the whole Atoms for Peace program started with the Eisenhower-Nixon Administration, resulting in a commitment to go ahead with the development by industry of nuclear power and that he hopes that this commitment will not be repudiated now by the Nixon Administration.

Flanigan replied that he could state unequivocally that the Nixon Administration is not trying to put a stop to nuclear power development in the United States. He said that he will go back to the White House and try to arrange for the issuance of a statement covering the problem of the CIP funding in the future.

Holifield then went on to read a number of questions (presumably prepared by the JCAE staff). He asked when the diffusion plants will be sold to industry if the Directorate concept is adopted. Flanigan replied that this would be at a time appropriate to the best interests of industry and government and that the White House has no preconceived notions on this. He said that an immediate sale would not be wise because the private

sector is not now prepared to invest very much money in plant which is presently operating at only partial capacity and whose future is so uncertain. Holifield then asked whether the price for the enriching service under the proposed Directorate will include charging the DOD for the enriched uranium that they need for nuclear weapons. He indicated that this will lead to the appearance of new, large expenses for nuclear weapons and this could lead to the takeover of this aspect of the uranium enrichment by the DOD and, therefore, to the dismemberment of the AEC. Flanigan indicated that it is not intended to apply a new price in connection with the transfer of enriched uranium for weapons to the DOD and that the AEC would still transfer these at no cost to the DOD under the Directorate concept. Holifield also commented on the BOB refusal to allow the AEC to contract for added electric power in needed amounts for the planned future increased level of operation of the gaseous diffusion plants.

At this point Hosmer suggested that this whole matter be looked at very carefully because there are many ramifications; Flanigan indicated that he will be glad to do this. He emphasized that among the things that need to be done there are two that stand out clearly: the AEC and the GAO should get together to work out the proper book value for the diffusion plants (for which the AEC studies have suggested \$1,700 million)--they should look especially at the amount of operating money, really uncapitalized capital, that should go into the derivation of the plant book value in order to be sure that this has been treated properly. Second, he will look into the possibility of providing for financing of the CIP program by the BOB in the regular AEC budgetary process and he will look into the preproduction problem (that is, the question on contracting for increased electric power for the gaseous diffusion plants).

England raised the question as to how the new Directorate concept would be announced. Flanigan said he presumes that there will be simultaneous White House and AEC announcements and indicated that these might be checked with the JCAE before they are issued.

It was pointed out by England and emphasized by Holifield that a change in the price for separative work, even though it should fall within the allowed inflation limits, that is even though it would be less than the present \$26 price augmented by the increase of \$1.67 caused by inflation, would still require congressional consideration because of the changed criteria under the Directorate concept that led to this change in price. Thus, the matter would have to lie before Congress for 45 days in order to give Congress a chance to act. Holifield said that it would be necessary eventually to have a public hearing on the new Directorate concept and that the White House should decide whether the AEC or some other representative should make the presentation. Flanigan indicated that he thinks the presentation should be made by the AEC if such a hearing becomes necessary.

Hosmer then brought up the matter of potential State intervention in the AEC regulatory process covering radioactive effluents from nuclear power plants. He pointed out the Minnesota case as presenting the most immediate problem but indicated that a number of other States are thinking about moving in the same direction. He said that he and other members of the Joint Committee had met with William Ruchelshaus

(Assistant Attorney General, Department of Justice) on October 20 to discuss this issue. Hosmer said that Mr. Ruchelshaus agrees that the Congress intended that such regulation was preempted by Congress for execution by the Federal Government and that there has been no thought that the Department of Justice would intervene on behalf of the State in the Northern States Power-State of Minnesota litigation. The only question before the Department of Justice, according to Ruchelshaus, is whether the Department of Justice should intervene in support of Northern States Power or stay out altogether. He indicated that this is a policy question which will have to be resolved in the White House.

Eric, Dianne and I again had chicken dinners from the Hot Shoppes.

Thursday, October 23, 1969 - D.C.

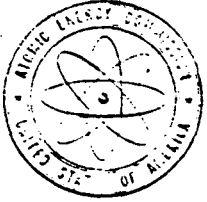
Eric, Dianne and I again prepared our own breakfast.

At 10 a.m. I presided over Regulatory Information Meeting 370 (notes attached). We decided in principle to amend our regulations for the licensing of production and utilization facilities--the part dealing with standard protection against radiation--by requiring that each nuclear power reactor shall include additional means to control the release of radioactive materials and that operating licenses shall require the use of this equipment in order to keep the release of radioactive material as low as practicable.

At 10:50 a.m. I presided over Information Meeting 954 (notes attached). We discussed a compromise in our test readiness program which we are working out with Dr. John S. Foster of DOD that would involve an expenditure of about an additional \$4 million in the FY 1970 budget and \$8.5 million in the FY 1971 budget. In order to meet our budgetary constraints, we had cut back on the test readiness program in the FY 1970 budget and eliminated it in the FY 1971 budget, but this probably would be unacceptable to some members of Congress.

I attended a luncheon given by Ambassador Corneliu Bogdan of Romania in the Romanian Embassy (2236 Massachusetts Avenue at the corner of 23rd Street). Also present were: Octavian Neda (Counselor), Iosif Gheorghiu (Counselor), Mihai Croitoru (Third Secretary), Nicolae Atanasiu (First Secretary), Mircea Raceanu (Second Secretary) and Nico Hotaranu (Second Secretary) of the Romanian Embassy, Ted Burgess (State Department), Julie Rubin, Myron Kratzer, Mel Abrahams, John Vinciguerra, Charles Pelzer and George Rotariu. The conversation revolved mainly around my trip to Romania and the follow-up actions for some of the cooperation in the peaceful uses of atomic energy that developed during our visit to Romania. The Romanian Embassy is in the house that was occupied right after the war by Romanian Ambassador Ralea. He is the father of Catinca Ralea of whom we saw a great deal during the visit to Bucharest and who lived in this house with her family for a couple of years as a teenager. This main house is now devoted to the business of the Romanian Embassy and Ambassador Bogdan lives in a house next door which at one time was occupied by the author Ruth Montgomery.

Helen came back from Cambridge this afternoon, where she had a fine visit with Lynne and Bill. They are coming down in a week or so to start



UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

UNCL. BY DOE
NOV 86

October 23, 1969

REGULATORY INFORMATION MEETING 370

10:00 a.m., Thursday, October 23, 1969, Chairman's Conference Room, D. C.

1. Proposed Amendments to 10 CFR Parts 50 and 20 (See October 23, 1969, Draft)

Discussed and to be revised for further consideration on Monday, October 27. (ADRA-SECY)

2. Mr. Price's October 17 Memorandum re Duquesne Light Company's Beaver Valley Power Station Site Acceptance

Staff may proceed. (ADRA)

W. B. McCool
Secretary

10:50 a.m.

PRESENT:

COMMISSIONERS:

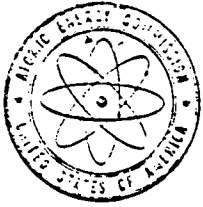
Chairman Seaborg
Commissioner Ramey
Commissioner Larson

STAFF:

Mr. Price
Mr. Beck
Mr. Rogers
Mr. Wells
Mr. Buck
Mr. Hollingsworth
Mr. Bloch
Mr. Hennessey
Mr. Rubin
Mr. O'Donnell
Mr. Spurgeon
Mr. ...

DISTRIBUTION:

Commissioners
Dir/Regulation
General Manager
General Counsel
Secretary



UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

UNCL. BY DOE
NOV 86

COPY NO. 3
October 23, 1969

INFORMATION MEETING 954

10:50 a.m., Thursday, October 23, 1969, Chairman's Conference Room, D. C.

1. October 15 Letter from the Inter-American Nuclear Energy Commission re U. S. Delegation to the Seventh Meeting

Commissioners Ramey and Thompson will represent the Commission.
(AGMIA-Fremling-Spurgeon-SECY)

2. Chairman's Report on October 22 Meeting with Chairman Chet Holifield and Congressman Craig Hosmer, et. al., re the Gaseous Diffusion Plants

Staff is to proceed with discussions with the GAO. (OC)

3. Monticello Nuclear Generating Station; Suit Contesting State Regulation of Radiological Safety Matters

The Chairman said Congressmen Holifield and Hosmer had, during yesterday's meeting, pressed Mr. Flanigan for an Administration decision on this matter.

4. Agenda for the Week of October 27, 1969

Approved. (SECY)

5. 12:30 p.m. Luncheon Meeting, Commissioners' Dining Room, Germantown, Friday, October 24, 1969

The Chairman and Commissioner Ramey will discuss with staff their draft testimony for the JCAE Environmental Hearings next week. (SECY-Rubin)

6. US-USSR Exchange Visits

The Chairman requested staff follow-up on his discussion with Mr. Petrosyants. (AGMIA)

7. AEC 293/110 - U.S. Delegation of Reactor Specialists to USSR

Approved with a request. (AGMIA)

8. AEC 1130/61 - Test Readiness Program

Approved. (AGMMA)

9. AEC 671/32 - Planned Layoffs by Idaho Nuclear Corporation

Noted. (RDT)

10. Pending Contractual Matters Report No. 331

Noted. (PAR)

11. Mr. Bloch's Oral Report on Labor Problem at Rocky Flats

12. Governor Samuelson's Telephone Call to the Chairman re the MTR

13. Draft Letter to Congressman J. D. Dingell re Amchitka

To be revised and reviewed with Commissioner Johnson. (AGMMA-Congr.)

14. Possible Consolidation of Offices and Laboratories in the New York City Area

Noted. (AGMO)

W. B. McCool
Secretary

11:50 a.m.

PRESENT:

COMMISSIONERS:

Chairman Seaborg
Commissioner Ramey
Commissioner Larson

STAFF:

Mr. Hollingsworth
Mr. Bloch
Mr. Hennessey
Mr. Rubin
Mr. O'Donnell
Mr. Spurgeon
Mr. Kull
Mr. McCool
Mr. Kratzer*
Gen. Giller*
Mr. Roser*
Mr. O'Neill*
Mr. Erlewine*
Mr. Fremling*

DISTRIBUTION:

Commissioners
General Manager
General Counsel
Secretary

*Attendance by Topic (s)

moving their things as they plan to start living in Washington around the first of December.

I received the updated summary of the status of the Rulison litigation from Joe Hennessey (copy attached).

Friday, October 24, 1969 - Germantown

At 10 a.m. I was interviewed on tape by Professor John Margrave of Rice University and Professor Thomas Pulley of the Houston Museum of Natural Science for use in the Houston Museum of Natural Science. I made statements on the Periodic Table, the status of nuclear power and fusion, the potential of our Plowshare program, the role of nuclear energy in space, the current level of background radiation, the place of the individual working scientist, the responsibility of scientists toward society, the practical uses of the transuranium elements, and the prospects for superheavy elements.

I had a telephone call from Paul A. Randolph (Orange County Board of Supervisors, Santa Ana, California), who said that the Board has taken an official stand that they do not want any further fossil-fueled power plants in the State of California and especially in the metropolitan areas of Southern California. He said that the situation in Southern California now is ridiculous: they don't want any more air pollution, but yet they won't accept nuclear power plants either. They are going to try to get all the authorities together quietly and work out a solution which, with the support of the Times and the Register, will be accepted by the general public. He said he is in touch with Horton and others at Southern California Edison to try to figure out how to open the door for nuclear power plants. Because of the cost escalation and public reaction which caused Southern California Edison to pull back, they are very reluctant to close the door on tried and true fossil-fueled plants and to try again with nuclear plants; also, their feeling is that the abnormal seismic requirements of the AEC have been instrumental in getting the situation out of hand. He said that the purpose of his call this morning was to ask for AEC cooperation so that when he sees people from Southern California Edison next week and they say AEC won't let them build an economic plant, he can state that AEC is willing to help work this out. I said that is correct. He said he will also be talking to the Department of Water and Power next week at the highest level. He will call me back next week to let me know how his visits and talks go.

Commissioners Ramey, Thompson and I had an informal luncheon meeting in the Commissioners' Dining Room to discuss our testimony for the forthcoming JCAE hearings on the environmental effects of nuclear power plants and other sources of electric energy.

I received from Henry A. Kissinger notice that the President has approved for execution the second quarter FY 1970 underground nuclear test program (MANDREL II). This approval does not constitute approval of STURTEVANT.

I received from the President a copy of the Safety Policy for the Federal Government (copy attached), which gives necessary direction for a unified effort to eliminate accidents among Federal government employees.

Dianne's friends, Catherine and Elizabeth McClellan, had dinner with us and stayed overnight.



UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

UNCL. BY DOE
NOV 86

October 23, 1969

Chairman Seaborg
Commissioner Ramey
Commissioner Johnson
Commissioner Thompson
Commissioner Larson

THRU: General Manager

PROJECT RULISON LITIGATION

In my memorandum to the Commission of September 10, 1969, I summarized the status, as of that date, of the three lawsuits which had been brought to enjoin the carrying out of Project Rulison. The Commission will recall that the Colorado Federal District Court had, in early September, denied plaintiffs' several requests for an injunction against the proposed Rulison detonation and that plaintiffs' efforts to obtain appellate reversal were unsuccessful. My September 10 memorandum observed that since plaintiffs' allegations in these proceedings related not only to the Rulison detonation but also to the subsequent flaring operation, the contentions as to flaring might be pursued in further litigation. There have been a number of recent developments in the last-mentioned regard and the purpose of this memorandum is to summarize them for the Commission.

At the conclusion of the preliminary injunction phase of this litigation, it was the view of defendants' trial counsel (both the Government attorneys and the attorneys for the contractor defendants) that the plaintiffs were quite likely to pursue their claims for injunctive relief as respects the contemplated flaring operations - which operations are to commence six months or so hence. With that as a basic assumption (one which proved to be well-founded), the Department of Justice decided that an effort should once again be made to have the three lawsuits dismissed on essentially legal grounds. Accordingly, the Department filed a motion to consolidate all three proceedings for purposes of common disposition by the Colorado Federal District Court and, concurrently, moved to renew the Government's earlier motion to dismiss or, in the alternative, for summary judgment. At about the same time, the plaintiffs in two of the

subject lawsuits amended their complaints to add Chairman Seaborg as a named defendant and to expand their complaints as respects flaring hazards. (The Chairman had been named as a defendant only in the suit filed by the three local property owners and had not been a party to the suits brought by the Colorado Open Space Coordinating Council and the District Attorney of Garfield County.)

Thereafter, on October 8, counsel for all parties appeared before Chief Judge Arraj in Denver for the purpose of determining procedures preliminary to the court's ruling on the Government's renewed motion for summary relief. At that time, plaintiffs' counsel made clear that they would insist on having discovery as to the details of the planned flaring operations (primarily by taking the depositions of the Government officials and others who had filed affidavits in support of the Government's motion); and also that plaintiffs would want to explore the adequacy of the radiological safety standards adopted by AEC for the flaring operations (the AEC's standards are based on the radiation protection guides recommended by the Federal Radiation Council). Despite Government objection as to the need for or appropriateness of these lines of inquiry, Judge Arraj indicated fairly clearly that such inquiry would be permitted.

Preliminary to the taking of the depositions of the Government's affiants in connection with the above-referenced motion, a meeting of defendants' counsel and senior AEC and contractor personnel was held at the Nevada Operations Office to ascertain, among other things, the degree to which plans for the flaring phase of Rulison had been completed. It became clear that, although alternative courses for carrying out the flaring phase had been charted, and a substantial degree of planning had already taken place, a final decision on the course to be pursued and the implementing procedures and details for that course had not as yet been fixed. (These matters can be worked out within the next 30 days and the Nevada office has undertaken to do so.)

In view of the foregoing, and in light of the indications given by the court on October 8 as to the areas of inquiry to be allowed plaintiffs, it was the opinion of both private and Government counsel that it would be unwise to pursue the request for summary judgment at this time. The concern was that the court might well be persuaded there were substantial factual matters yet to be resolved and therefore that the predicate for the summary judgment sought by the Government on legal grounds was not present. While denials of summary judgment for this reason are quite common in litigation, it was felt that such a ruling in the circumstances of these particular lawsuits might be construed

by the press (and would probably be portrayed by the plaintiffs) as a judicial expression of doubt respecting the safety measures thus far taken by the AEC. Defendants' counsel thought it best, therefore, that the Government's motion for summary relief (as well as like motions subsequently filed by the contractor defendants) should be withdrawn and that the plaintiffs should be allowed to proceed to a trial on the merits.

The foregoing course was, in fact, proposed to Judge Arraj in a special hearing before him on October 21 after preliminary discussion and agreement with plaintiffs' counsel. In explaining the proposed revised course to the court, and to plaintiffs' counsel, Government counsel stated that the reason it was deemed preferable to proceed to trial on the merits rather than to deal with the case piecemeal, was that in this way there was greater assurance the entire litigation (including appeals) could be terminated on a schedule which would permit timely commencement of flaring operations. Judge Arraj, after a brief hearing, sanctioned withdrawal of the defendants' motions and, with the agreement of the parties, established a schedule calling for discovery depositions during the week of December 8, 1969, and a trial on the merits before him during the week of January 12, 1970.

Judge Arraj has, throughout this litigation, viewed the essential question as being whether the Atomic Energy Commission has taken and plans to take appropriate steps in connection with the execution of Project Rulison to carry out the Commission's responsibility under Section 31 d. of the Atomic Energy Act "to protect health" and "to minimize danger to life or property". Although the statute specifically states that the measures to be taken in this regard are such "as the Commission may determine," it is the Judge's view that the reasonableness of the Commission's safety actions are open to judicial scrutiny. In this context, and in light of the assertions thus far made by plaintiffs' counsel (as well as the Judge's own observations), it is expected that the forthcoming trial - and the discovery proceedings leading to the trial - will focus on two matters: (1) the specific measures being taken by the Commission to protect public health and safety against radiological hazards in the flaring phase of Rulison; and (2) the standards for radiological protection which have been adopted by the Commission. With regard to the Commission's standards, plaintiffs have already made clear their intention to question the adequacy of the Federal Radiation Council standards which the Commission has adopted

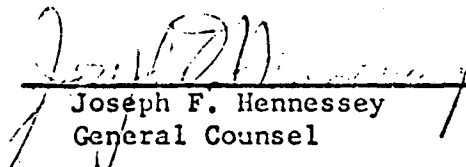
October 23, 1969

(through AECM 0524) for application in the implementation of Project Rulison; and at the hearing before Judge Arraj on October 21, plaintiffs' counsel stated their intention to subpoena "the head of the Federal Radiation Council" (presumably, they mean Dr. Paul Tompkins, FRC Executive Secretary) for purposes of taking his discovery deposition.

To the extent that the Federal Radiation Council standards become an issue in this litigation, the impending trial and its outcome can have ramifications extending beyond Project Rulison and other Plowshare projects and into the Commission's other operational activities and its regulatory program. It is additionally apparent that the forthcoming environmental hearings before the Joint Committee, with their focus, inter alia, on FRC and AEC Part 20 standards, could become a matter for judicial notice in the January trial.

Because of the possible ramifications of these lawsuits, and of the public attention which will inevitably be focused on them once trial begins, the litigation is being dealt with as one of major importance. Deputy Assistant Attorney General Carl Eardley, who represented the Government in the earlier stages of these proceedings, also plans to act as Government trial counsel. He will be supported by private trial counsel employed by Austral and CER as well as by counsel from the Nevada Operations Office and Headquarters. The Government's expert witnesses will be drawn from Headquarters, the Nevada Operations Office, AEC laboratories and the contractor organizations involved. Witnesses from other Government agencies (e.g., the Public Health Service and the Bureau of Mines) will also be utilized. We should know within the next few weeks the witnesses plaintiffs propose to use.

I will keep the Commission advised of further significant developments and will also furnish the JCAE a summary status report on these lawsuits.



Joseph F. Hennessey
General Counsel

cc: Secretary
Director of Regulation
Director, PNE
Director, B&M
Director, OS
Director, DPI
Joseph J. DiNunno

THE WHITE HOUSE
WASHINGTON

October 24, 1969

MEMORANDUM FOR THE HEADS OF
EXECUTIVE DEPARTMENTS AND AGENCIES

The purpose of the Safety Policy for the Federal government forwarded with this memorandum is to give necessary direction for a unified effort to eliminate accidents among Federal government employees. I intend to give my full support to the government-wide safety program and I trust that you will do so in the area of your responsibility.

Richard Nixon

THE WHITE HOUSE

WASHINGTON

October 24, 1969

SAFETY POLICY FOR THE FEDERAL GOVERNMENT

The human suffering and economic waste caused by accidents are principal concerns of this Administration. Federal, civil and military personnel and the public must be protected; governmental programs must be efficiently run. These two goals can best be realized by a unified, dedicated and on-going program of accident elimination in government.

We are making progress in this area. In 1965 when Mission SAFETY-70 was begun, the disabling injury frequency rate was 7.7. The rate for 1968 was 6.9, a three percent improvement over the previous year and an overall 10.4 percent improvement. Through this effort an estimated \$12,210,000 was saved and 16,200 disabling injuries were prevented.

There is still great progress to be made. Department or agency heads play a major role in the elimination of accidents. If a department or agency has an effective program in this area, it should be continued; if it does not have an adequate program, one should be developed; if the program needs the necessary resources to make it effective, resources should be provided. Everyone in a department or agency should know that a safety program is effective only to the degree that it is supported and participated in by employees.

In a united effort, the Federal government will work with labor unions representing government employees, with State and local governments and with appropriate safety organizations in developing and applying sound accident prevention principles and practices.

The Secretary of Labor is directed to advise me annually, and at such other times as he deems appropriate, of the actions taken and the progress made by each agency.

Richard Nixon

Saturday, October 25, 1969 - D.C.

I worked at the office until 1 p.m. Justin Bloom and I had lunch at the Paramount Coffee Shop (18th Street).

Eric and I played nine holes of golf at the Chevy Chase Club; he shot 64 and I, 49.

I worked on my speech, "Fission and Fusion - Developments and Prospects," to be given at the Berkeley symposium of the Council for the Advancement of Science Writing on November 20.

The decision of the United States and the Soviet Union to start the SALT talks in Helsinki on November 17 was announced by Secretary Rogers in a press conference this afternoon. Rogers emphasized that we shouldn't become too euphoric merely because it has been decided that talks will be held; it is the results of the talks that count. This announcement was followed by much comment, including a considerable amount of speculation that President Nixon isn't too enthusiastic about the prospects for these talks.

Sunday, October 26, 1969

I worked on my speeches, "The Human Side of Energy" to be given upon receiving the Prometheus Award of the National Electrical Manufacturers Association on November 11; "The Synthetic Elements from Discovery to Manufacture" to be given before the American Nuclear Society Technical Group for Nuclear Criticality Safety at the AIF-ANS meeting in San Francisco on December 2; and "From Mendeleev to Mendeleevium - And Beyond," my introductory remarks for the Welch Foundation Conference on the Transuranium Elements on November 17.

I watched on TV the Washington Redskins-Pittsburgh Steelers game being played in Pittsburgh, which the Redskins won by a score of 14-7. I also saw the Oakland Raiders-San Diego Chargers game, which the Raiders won by a score of 24-12.

Monday, October 27, 1969 - D.C.

Jerry Tape called saying he had a message for me from Sir Solly Zuckerman, which he intended to pass on to me the next time he saw me; however, since Sir Solly is likely to be in Washington this week, Jerry didn't wish to hold off any longer. When Jerry and Lee DuBridge were in London, a few days after the final message from the U.S. was sent on the tripartite agreement, Sir Solly took Jerry aside and told him he wanted Jerry and me to know that in the discussions Jerry had with the U.K. last spring, and even at the time Sir Solly met with the Commission on Saturday morning, May 3, he (Sir Solly) was misled as to the extent of the exchange; it wasn't until after that meeting that, at his level, they actually ascertained that there had been specific information exchanged, including drawings. They apparently had actually gone to what is the equivalent of their Justice Department for a ruling of their international legal position, and at the time we were negotiating, they had a ruling stating that they were on solid ground. Jerry believes that

the information they gave to Sir Solly was that there was a 15-minute conversation on this. In May, Sir Solly saw a document that had a drawing all laid out in it.

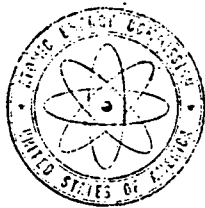
Sir Solly wanted me to know that he had been misled, and had he known more at the time, things would have gone somewhat differently. He is now also embarrassed by the fact that at that time we knew precisely what had been exchanged, and he didn't. Sir Solly said that, as a result of this, "heads will roll." Tape talked to Bob Press, Sir Solly's deputy, and Press told him the same thing. Tape tried to get an inkling where "heads will roll" and learned that it might even be a member of the UKAEA because apparently even the Prime Minister was trapped in this one, as well as Solly. Some of this may explain the reception that Commissioner Thompson got, because by that time they were fully aware of the situation. Jerry also got the feeling that in view of the way the matter came out with us it has made life easier with them. The situation would have been much more difficult had our decision been a completely negative one. Sir Solly hopes to be in Washington this week; he was invited to Harold Brown's installation as President of Caltech at the end of the week.

At 9:55 a.m. I presided over Information Meeting 955 (notes attached). We discussed further the question of whether STURTEVANT should be a cratering shot. In an executive session we discussed the matter of the future planning for the LMFBR program and whether the kind of prototypes that are planned should be changed; we also discussed the problems with the FFTF.

At 12 noon I presided over a meeting welcoming the Chairman of the Brazilian Atomic Energy Commission (CNEN), Professor Uriel da Costa Ribeiro, who was accompanied by Horacio Antunes Ferreira, Jr. (Planning and Development Advisor, CNEN), Luiz Osorio de B. Aghina (Institute of Nuclear Engineering, CNEN), Paulo Saraiva de Toledo (Institute of Atomic Energy), and Carlos Alberto P. Pardellas (Second Secretary, Brazilian Embassy). Also present were Commissioners Johnson, Thompson and Larson, Neil Seidenman (Translator, State Department), Bob Hollingsworth, Myron Kratzer, Julie Rubin and others. This was a very informal meeting in which we discussed Ribeiro's present visit to the United States, which has come about as a result of my long-standing invitation.

Ribeiro then rode with me to the Carlton Hotel, where I hosted a luncheon for him in the Council Room. Present at the luncheon were: Ribeiro, Ferreira, Aghina, Saraiva, Honorable Celso Diniz (Minister Counselor, Embassy), Pardellas, Dr. Ramos (Scientific Attache, Brazilian Embassy), Congressman Craig Hosmer, William England (JCAE Staff), Phil Farley (State), Donovan Zook (State), Seidenman (Interpreter), Commissioners Johnson, Thompson and Larson, Hollingsworth, Bloch, Kratzer, Labowitz, Rubin, Rosen, Abbadessa, Friedman, Bob Wilcox (AEC Science Representative to Brazil), Milt Shaw, Munster, Niniger and Dalton. Toward the end of the luncheon I rose and gave a little welcoming speech. I described the many exchanges of visits between Brazil and the United States and mentioned particularly my visit to Brazil in July, 1967, the visit of Commissioner Johnson in October, 1967, and the recent visit of Commissioner Thompson.

I mentioned the visit of Minister Cavalcanti and Professor Carvalho to the United States about a year ago; I also mentioned that Professor



UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

COPY NO. 3
October 27, 1969

INFORMATION MEETING 955

9:55 a.m., Monday, October 27, 1969, Chairman's Conference Room, D. C.

1. AEC 132/154 - Organizational Functions

Discussed.

2. Presentation of Certificate of Appreciation to Mr. Curtis Nelson

3. October 8 Memorandum from the White House re Clearance of Accepted Positions

Staff review is requested. (SAGM)

4. Position of Orange County, California, Board of Supervisors re Moratorium on Fossil Fuel Power Plants

5. Approval Procedure on Underground Tests

Review is requested. (AGMMA-Rubin)

6. NTS Events (See General Giller's October 23 Memorandum)

Noted. (AGMMA)

7. AEC 809/142 - Proposed Westinghouse Assistance to Finnish Reactor Project

Staff may proceed subject to Commissioner Ramey's comments.
(AGMIA-Fremling-SECY)

8. AEC 811/277 - Sturtevant Event; and,
AEC 1180/22 - Report on the Canal Study Commission Meeting on October 23,
1969

Discussed and to be rescheduled. (SECY)

9. Senator Percy's October 28 Meeting with Mr. Bob Wilson to Discuss the
200 BEV Accelerator

10:55 a.m.

10. Mr. Price's October 24 Memorandum re Revised Proposed Amendments to
10 CFR Parts 50 and 20 (See also Commissioner Thompson's October 27
Memorandum)

The draft response to questions will be scheduled for consideration tomorrow. (SECY)

11:20 a.m.

EXECUTIVE SESSION ITEMS

11. AEC 1311/23 - Proposed Response to BOB Request for Analysis of LMFBR
Demonstration Plant Program as a Major Program Issue

I will schedule a discussion on Friday, October 31, 1969. (SECY)

12. Commissioner Johnson's Afternoon Meeting with Mr. Andrew E. Gibson,
Maritime Administrator

13. October 20 Letter from the Bonneville Power Administration re Advanced
Steam Payments for the NPR

Commissioner Johnson noted staff is reviewing. (P)

14. Commissioner Johnson's Comments re Proposal on Stockpile Disposition

15. Commissioner Johnson's Comments re Cooperation with Western Europe
re Diffusion Plant Technology

W. B. McCool
Secretary

11:45 a. m.

PRESENT:

COMMISSIONERS:

Chairman Seaborg
Commissioner Johnson
Commissioner Thompson
Commissioner Larson

STAFF:

Mr. Hollingsworth
Mr. Bloch
Mr. Brown
Mr. Hennessey
Mr. Ryan
Mr. Rubin
Mr. Fremling
Mr. McCool
Mr. Nelson*
Mr. Vinciguerra*
Mr. Price*
Mr. Rogers*
Mr. Wells*
Mr. Buck*
Mr. Kratzer*
Mr. English*
Mr. Kelly*
Mr. Oakley*

DISTRIBUTION:

Commissioners
General Manager
General Counsel
Secretary

*Attendance by Topic (s)

Carvalho has a son at the University of California, Davis, which two of my sons also attend, and that one of my sons and Carvalho's son have become acquainted. I took note of Brazil's decision to buy a 500 MW nuclear power plant to be operating by 1976 which will act as a prelude to the adoption of nuclear power by Brazil in the 1980's; I mentioned the types of reactors they are considering which include the U.S. water-cooled and the U.S. HTGR. I suggested that Professor Ribeiro should visit us again soon. Professor Ribeiro responded by expressing appreciation for his fine reception in the United States. Congressman Hosmer also added a few words of welcome and expressed the hope that Brazil would purchase a U.S. type reactor as the first in their nuclear power program.

Before the luncheon I had a conversation with Hosmer. He told me that he thought the current public uproar concerning radioactive effluents from nuclear power plants would diminish, and he therefore hoped that we wouldn't be stampeded into setting lower concentration levels for radioactive effluents or requiring much costly apparatus on nuclear power plants for diminishing radioactive effluents as these would burden the nuclear power industry unnecessarily. He also said that he hoped we would go ahead with STURTEVANT as a cratering shot and not be deterred by public reaction.

At 3:30 p.m., accompanied by Stan Schneider, I went to the Voice of America studio at 300 Independence Avenue to tape a half hour radio broadcast for the VOA program "Press Conference - U.S.A." I met with William McCrory, moderator of the program and the interviewers John Lannon of the Washington Evening Star, William Hines of the Chicago Sun-Times (writing out of a Washington, D.C. office) and Marten Bolle of The Netherlands' Press. During the interview the following questions were asked: Lannon inquired about the status and purpose of the NERVA nuclear rocket program; the reaction of the public to environmental effects of nuclear power--particularly thermal effects and noise from cooling towers; and about the evaluation before and after the test on Amchitka. Bolle asked about my recent trip to Europe; for a comparison of progress in the East and West; about the possible contribution of nuclear power to the environment, and what the first order of business might be at the forthcoming disarmament talks at Helsinki. Hines's questions concerned the undesirable effects of nuclear power; why there is an upsurge of concern; what advances have been made in controlled fusion research; whether we made a complete evaluation before testing on Amchitka; what the status of the sea level canal study is; about the concern of the marine biologists over a sea level canal and the possible effects of tides as a result of such a project.

I received a letter from Chairman Holifield of the JCAE (copy attached) referring to previous correspondence between the JCAE and the AEC regarding the possible sale of United States computers to the Soviet Union and urging us to disapprove of any proposal which would provide for the export of advanced computers to the Soviet Union.

I received a copy of a memorandum (attached) from David Packard (Deputy Secretary of Defense) to Kissinger (Assistant to the President for National Security Affairs) advising that the DOD is fully cooperating in the development of recommendations for honoring the commitment the President made to the Dutch last May regarding closer cooperation between our two countries in the field of nuclear propulsion.

CHET HOLIFIELD, CALIF.,
CHAIRMAN
MELVIN PRICE, ILL.
WAYNE M. ASFINALL, COLO.
JOHN YOUNG, TEX.
ED EDWARDS, OKLA.
CRAIG KESMER, CALIF.
JOHN B. ANDERSON, ILL.
WILLIAM H. MCCULLOUGH, OHIO
CATHERINE MAY, WASH.
EDWARD J. BAISER, EXECUTIVE DIRECTOR

Congress of the United States
JOINT COMMITTEE ON ATOMIC ENERGY

WASHINGTON, D.C. 20510

JOHN O. EASTON, ILL.,
VICE CHAIRMAN
RICHARD E. RUSSELL, GA.
CLINTON D. ANDERSON, N. D.
ALBERT GORE, TENN.
HENRY M. JACKSON, WASH.
GEORGE D. Aiken, VT.
WALLACE F. BURNETT, UTAH
CARL T. CURTIS, MISS.
NORRIS COTTON, N.H.

UNCL. BY DOE
NOV 86

October 24, 1969

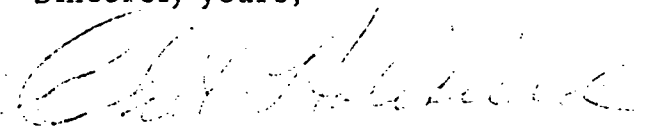
Dr. Glenn T. Seaborg
Chairman
U. S. Atomic Energy Commission
Washington, D. C. 20545

Dear Dr. Seaborg:

On June 6, 1969, the Joint Committee staff asked the AEC for a report on the status of the possible sale of United States computers to the Soviet Union. In a letter dated June 23, 1969, Mr. Hollingsworth stated that the AEC was making a review of the matter and that the AEC would provide the Committee with an assessment of the advantages and disadvantages of providing the Soviet Union with United States computers.

I asked the Joint Committee staff to look into this matter thoroughly. I have reviewed a Committee staff report prepared on this subject which strongly reinforces my original inclination that it would not be in the national interest to send advanced computers to the Soviet Union. I strongly urge you to disapprove of any proposal which would provide for the export of advanced computers to the Soviet Union including, of course, the Control Data Corporation models 6400 and 6600.

Sincerely yours,


Chet Holifield
Chairman

THE SECRETARY OF DEFENSE
WASHINGTON, D.C. 20301

23 OCT 1969

DECL. BY DOE
NOV 85

MEMORANDUM FOR THE ASSISTANT TO THE PRESIDENT FOR
NATIONAL SECURITY AFFAIRS

SUBJECT: Possible US Cooperation with the Dutch on Nuclear Propulsion

With reference to your memorandum of October 1, 1969, I assure you that the Department of Defense is fully cooperating in the development of recommendations for honoring the commitment the President made to the Dutch last May of studying the possibility of closer cooperation between our two countries in the field of nuclear propulsion.

There is no disagreement of which I am aware within the Under Secretaries Committee. The delay in the submission of the Department of Defense contribution for the Under Secretaries Committee meeting was occasioned by the need to give full consideration to all possible approaches to the problem.

You properly pointed out in your memorandum to me that both the United States and the Netherlands fully understand that there are only very limited ways in which the US might assist the Dutch in the explorations they seek toward acquiring a nuclear power attack submarine capability, in the absence of an agreement with the Dutch approved by the Congress. Within such existing legislative prohibitions, the Defense contribution to the Under Secretaries Committee will outline the available options so that the President has all of the information necessary to make a decision in this manner. The contribution of the Department of Defense to the Under Secretaries Committee will be forwarded shortly.



Copy to: Secretary of State
Chairman, AEC

Helen attended a meeting of the Board of the Murch Home and School Association. There is a movement afoot to oust the principal, Miss Kaufmann, which Helen is trying to help counteract.

Tuesday, October 28, 1969 - D.C.

I had lunch with Commissioners Ramey, Thompson and Johnson, together with Hollingsworth, Abbadessa, Harris, Hennessey and Rubin, in the Commissioners' Dining Room to discuss a press release (copy attached) that the AEC will issue simultaneously with the White House press release concerning the new plans for the future operation of the uranium enrichment plants.

At 1:30 p.m. the Commissioners met with Earl C. Bolton (Vice President, Administration, University of California, Berkeley) and Graeme C. Bannerman, who will replace Bolton on December 1 when he leaves to go with Booz-Allen & Hamilton, Inc. in Chicago. I mentioned to Bannerman my concern about the Regents imposing tuition on the students of the University of California. Bolton indicated an interest in serving on some AEC advisory committee.

From 2:35 to 3:25 p.m. I attended a meeting of the National Aeronautics and Space Council in Room 170 of the Executive Office Building. Present, at the table, were: Vice President Agnew, William A. Anders (Executive Secretary), U. Alexis Johnson (State), Dr. Lee A. DuBridge (OST), Dr. Robert C. Seamans, Jr. (Air Force), Dr. Thomas O. Paine (NASA), James R. Schlesinger (BOB) and I. Others present were: Herman Pollack (State), I. Nevin Palley (DOD), Milton W. Rosen (NASA), Milton Klein (AEC), C. Stanley Blair and Jerome B. Wolff (Vice President's Office), Russell W. Hale, Winfred E. Berg, William E. Thurman and Alfred C. Barbee (NASC Staff).

Vice President Agnew, serving as chairman, opened the meeting with a short statement, recognizing that this was the first meeting of the reorganized National Aeronautics and Space Council (NASC) and suggesting that it has an important role to play. He said that it will be necessary to find the proper balance between attention to astronautics and aeronautics. He also mentioned that the fate of the Space Task Group report and its recommendations has not yet been determined. He then called on Anders.

Anders described the changes in the NASC that have taken place (mentioning that I am the only original member still present), the objectives of the NASC Act of 1958, and the objectives outlined in the Space Task Group report. He also discussed his plans for manning the staff of the NASC, saying that he is asking BOB for six more people in the 1971 budget and has asked, and received, the loan of a number of people from DOD, NASA, AEC, etc.

Agnew complimented Anders for his fine report and for the progress that is being made under his leadership. He then called on him to describe items for future NASC meeting agenda. Anders mentioned the following items: (1) Develop activities of the Council and staff in relation to Space Task Group recommendations; (2) Survey of aeronautical policy from a national viewpoint; (3) Define policy implications of navigational

(Draft as approved by Commission 10/28/69)

The Atomic Energy Commission is proceeding to implement the decision of the President that uranium enrichment activities are to be conducted by a separate directorate within the AEC in a manner more closely approaching a commercial enterprise.

The decision, announced by the White House today, contemplates that responsibility for uranium enrichment ultimately will be transferred to the private sector at a time and in a manner which will best serve the national interest.

During the interim period, the AEC will continue to supply enriched uranium and uranium enrichment services to domestic and overseas users, including the fulfillment of all existing commitments.

Enrichment service contracts will continue to provide for services within the previously established ceiling charge of \$30 per kilogram unit of separative work, subject to escalation of power and labor costs. A kilogram unit of separative work is the unit used to measure the physical work required to separate the isotopes U-235 and U-238.

The new directorate will maintain separate accounting records and will publish periodic financial reports similar to those of commercial enterprises. Such reports will reflect the financial results of operating the uranium enriching enterprise, and also will provide information needed for financial analysis and investment decisions when the facilities are transferred to the private sector.

The uranium enriching enterprise will be funded with revenues from its sales, supplemented, as necessary, by appropriations through the normal budgetary process. Further information on the new arrangements within the AEC will be made available at the conclusion of studies which are now under way to identify the structure of the directorate, its responsibilities, and its relationship to other AEC functions.

Uranium enriching is the only operation in the preparation of fuel for nuclear power reactors that is exclusively a government function. The operation involves the partial separation of the isotope U-235, which will sustain a nuclear chain reaction, from U-238. The work is carried out in large plants at Oak Ridge, Tennessee; Paducah, Kentucky; and Portsmouth, Ohio.

These three gaseous diffusion plants will continue to be operated by private industrial firms under contract to the AEC. The Oak Ridge and Paducah plants are operated by Union Carbide Corporation (Nuclear Division), and the Portsmouth facility is

operated by Goodyear Atomic Corporation. The plants were built at an original cost to the government of \$2.3 billion. A planned program for improving and uprating them will involve a further capital investment of at least \$600 million ~~during the~~ 1970s to meet the growing demands for nuclear power plant fuel.

#

satellite systems for civil, military, and international use; (4) Develop recommendations for national and international policy for the operational use of earth resource satellite programs; (5) Assist in definition of government's responsibility in development of commercial domestic satellite systems; (6) Provide recommendation with respect to national policy on international cooperation in both aeronautics and space; and (7) Develop mechanism to provide recognition of non-Council member agencies having responsibilities for or affected by aeronautical and space activities.

Agnew then called on Johnson for any comments; Johnson emphasized the importance of items 6 and 7, especially the international aspects. In response to a request for my comments, I made the point that item 1, the development of activities of the Council and staff in relation to the Space Task Group recommendations, is a broad assignment. DuBridge commented on the important role of science in the space program and particularly the importance of international cooperation, both bilaterally and multilaterally. He said that there is a sort of crisis in the science component of the program and that some scientists have even criticized the STG report. He said it is clear that there is a public relations job to do. He also emphasized the need to get academic scientists to come to work in the space program to help bridge the gap. Schlesinger emphasized the budgetary aspects and said that the President has suggested budget sharing in the international program. Paine emphasized the international flavor of all the agenda items.

I asked Paine whether the Soviets actually have put a lunar landing program at very low priority as recent newspaper publicity has stated. Paine replied that intelligence reports show that the Soviets definitely do have a moon program and that recent statements by Mstislav Keldysh, who often shoots from the hip, were probably meant as a cover for some of their failures.

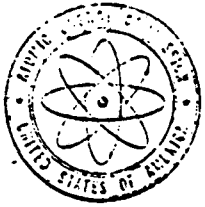
Agnew finally called on Seamans for his comments, and he emphasized the importance of the space shuttle and the satellites.

Agnew then drew the meeting to a close. He said that today's meeting only served as a testing ground for future meetings which would be devoted to more specific topics.

John Foster called to tell me that he has sent a paper to Under Secretary Packard for signature, and addressed to me. They have come around to agreeing with us on the readiness issue. They will have about \$6-plus million aimed at readiness for high altitude testing, etc.

At 4:40 p.m. I presided over Information Meeting 956 (notes attached). We discussed the TVA Environmental Research and Development Program proposal sent to me by Red Wagner in his letter of October 23 (copy without enclosure attached) and decided we would study this further.

I received a letter from Secretary of State Rogers (copy attached) thanking me for sending him a copy of my report to the President on my European trip and commenting on my recommendation that a fund be established to finance assignments of Eastern European scientists to the United States and U.S. scientists to Eastern European countries and other aspects of my report.



UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

ENCL. BY DOB
NOV 69

COPY NO. 3
October 28, 1969

INFORMATION MEETING 956

4:40 p.m., Tuesday, October 28, 1969, Chairman's Conference Room, D. C.

1. October 24 Memorandum from the President re Safety 70

Noted.

2. Commissioners' Luncheon Meeting with NASA Officials, November 10, 1969, D. C. Office

Scheduled. (SECY-SNS)

3. October 24 Letter from Chairman Holifield re JCAE Disapproval of Export of Computers to USSR

A response is requested. (AGMIA-R)

4. AEC 809/144 - Proposed Export of U.S. Computer to Serpukhov

Approved. (AGMIA)

5. October 23 Letter from TVA re Environmental Research and Development Program Proposal

Staff comments are requested. (AGM-AGMR&D)

6. 1969 Enrico Fermi Award Ceremony, 5:00 p.m., December 2, 1969, San Francisco, California

To be scheduled. (IP-SECY)

7. October 28 Draft Statement for Use after Meeting with Governor LeVander
Approved with a change. (PI)
8. Commissioners' Meeting with Governor Harold LeVander, 2:15 p.m.,
Wednesday, October 29, 1969
Scheduled. (SECY)
9. Color Photograph of the Commission, 9:20 a.m., Thursday, October 30,
1969, Room 1115, D. C. Office
Scheduled. (PI-SECY)
10. AEC 1309/21 - Proposed Post-Test Announcement for Cruet, Pod and
Calabash
Approved. (PI)
11. White House Press Release re Directorate for AEC Uranium Enrichment
Facilities
Noted.
12. JCAE Hearings on Practical Value, November 18, 19, and 20, 1969
Commissioner Ramey and Mr. Hennessey will testify. (Fremling-GC-Cong.)

W. B. McCool
Secretary

5:30 p.m.

PRESENT:

COMMISSIONERS:

Chairman Seaberg
Commissioner Ramey
Commissioner Johnson
Commissioner Thompson .

STAFF:

Mr. Hollingsworth
Mr. Bloch
Mr. Brown
Mr. Hennessey
Mr. Rubin
Mr. Ryan
Mr. McCool
Mr. Hudgins*
Mr. McColley*
Mr. Harris*

DISTRIBUTION:

Commissioners
General Manager
General Counsel
Secretary

*Attendance by Topic (s)

TENNESSEE VALLEY AUTHORITY
KNOXVILLE, TENNESSEE 37902

UNCL. BY DPT
NOV 86

OFFICE OF THE BOARD OF DIRECTORS

October 23, 1969

The Honorable Glenn T. Seaborg
Chairman
United States Atomic Energy Commission
Washington, D. C. 20545

Dear Dr. Seaborg:

The enclosed report describes a program which TVA has included in its 1971 budget proposal. The principal features are summarized on pages 2 and 3.

Resource development activities of TVA have involved us in many aspects of environmental protection over a long period of years. This experience seems to us to indicate clearly that analysis and solution of currently pressing environmental problems on a regional basis can be helpful in solving similar problems on a national scale.

We are proposing to use TVA's thermal (nuclear and coal) generating plants, the controlled river system, and our interdisciplinary scientific personnel in a more intensive research and development effort to find solutions to problems of environmental pollution. Special emphasis will be given to control of air and water pollution and to solid waste disposal. The focus of this program would be in a newly developed Environmental Research Center.

If the TVA proposal is favorably received, we would look forward to the opportunity for increased cooperative work with your commission in establishing priorities, planning projects, and identifying and stimulating action in our region in a way that would be most helpful and useful to you in dealing with related national problems with which you are concerned.

Sincerely yours,



Aubrey J. Wagner
Chairman

Enclosure

DOS

10/28/69
C/C/L BY DGE

THE SECRETARY OF STATE
WASHINGTON

October 27, 1969

87 10/28/69

Dear Glenn:

Thank you for your letter of October 7 which enclosed a copy of the report to the President on your European trip. I read it with considerable interest.

You specifically called my attention to your recommendation that a fund be established to finance assignments of Eastern European scientists to the United States and U.S. scientists to Eastern European countries. I am happy to tell you that we are taking steps which, we hope, will lead to the implementation of this recommendation. As you have noted, Dr. DuBridge reached similar conclusions.

With reference to your talks with the Soviets on the possibility of further bilateral discussions on Plowshare, this was recently brought up in the Under Secretaries Committee meeting and there was agreement that we should seek such additional discussions in the near future.

I have asked the appropriate offices in the Department to keep your report under continuous review, since a large number of its comments and recommendations directly relate to one or more of a wide range of current activities in international atomic energy.

The Honorable
Glenn T. Seaborg,
Chairman,
U.S. Atomic Energy Commission.

- 2 -

In closing this letter, I want to note the value we attach to the reports of your visits overseas, and particularly to the kind of discussions and consultations you have just had with scientists in Eastern Europe. I believe that these visits, with their emphasis on scientific and technological matters of common concern to all countries without regard to national boundaries are of great value in enhancing our relations with other countries and in implementing our foreign policy objectives generally.

With best personal regards,

Sincerely,


William P. Rogers

Wednesday, October 29, 1969 - D.C.

At 10 a.m. I testified at the JCAE hearing on the Environmental Effects of Producing Electric Power. Present for part, or all, of the testimony were Chairman Holifield and Congressmen Hosmer, Price, May and Anderson. I was accompanied by Commissioners Ramey, Johnson and Thompson and a number of the AEC staff. Preceding my testimony, Chairman Nassikas and F. Stewart Brown of the FPC completed, in a question and answer session, testimony given yesterday. I delivered my prepared statement, which was very well received, and then I answered questions on the concept of the breeder reactor and its future role, the contribution of the public visibility of our hearing process toward focusing the attention of critics on nuclear power, and some of the environmental effects of nuclear power plants. There was a long question on the role of the Atomic Safety and Licensing Boards and our hearing process and both Ramey and I participated in the answer.

I had lunch at the Longworth Cafeteria (18th and G, N.W.) with Julie Rubin, Justin Bloom, Stan Schneider, Howard Brown and Janet Reinhold. After lunch we walked around Lafayette Park.

After I returned to the H Street building, I met briefly in the 11th floor reception area with Bruce Cork and Thomas Groves of Argonne National Laboratory. They gave me a copy of the proposal for a 500 Mev booster injector for the Zero Gradient Synchrotron (ZGS) and pictures of their 12-foot bubble chamber which has just recently gone into operation at Argonne National Laboratory.

At 2:15 p.m. Commissioners Ramey, Thompson, Johnson and I, together with Harold Price, Joseph Hennessey and other AEC staff, met with Governor Harold LeVander of Minnesota, Robert B. Hinkley, his News Secretary, and Laurence F. Koll, his Special Assistant. We discussed the technical and jurisdictional matters involved in the control of radioactive release of effluents from nuclear power plants, especially the Monticello plant being built by the Northern States Power Company. Both sides emphasized their points of view regarding the role of the State in setting the permitted levels for radioactive effluents. The other Commissioners and I urged the Governor to have Minnesota enter into an agreement with the Commission for authority over the licensing of radioisotopes, pointing out that there is much more exposure from these to the cities of Minnesota than there could possibly be from the Monticello plant. We also suggested to the Governor that Minnesota might participate in the monitoring of radioactive effluents from nuclear power plants. Governor LeVander didn't feel that either of these suggestions offers a satisfactory substitute for the State's position that they want to set their own levels for radioactive effluents. Commissioner Thompson, especially, pointed out that a policy of a State setting its own levels could decrease the safety of nuclear power reactors, and he warned the Governor that he is taking on a great responsibility in this respect. We also pointed out that it would not be practical to have each of fifty states set the standards for such a complicated and advanced technology as nuclear power reactors.

Following the meeting Governor LeVander and I met with James Talle of the Minneapolis Star, Al Eisele of the St. Paul Dispatch, and Dick Kleeman of the Minneapolis Tribune. We briefed them on our meeting, indicating that



Meeting on radioactive effluent levels in Minnesota; October 29, 1969.
L to R: Harold LeVander, Seaborg, James T. Ramey.

each of us had explained our positions and that no agreement had been reached. I pointed out, in answer to a question, that the Governor's office had first indicated a desire for the meeting, but the fact that a meeting was held is more important than determining who had first asked for it.

I called Tom Whitehead and gave him the gist of our conversation with Governor LeVander. I pointed out that Nassikas, in his testimony this morning, had clearly stated that he thought the Federal Government, namely the AEC, had pre-empted the authority to regulate radioactive effluents from nuclear power plants. Whitehead said that Flanigan is concerned with opposing a State's desire to set stricter standards than those of the AEC. I pointed out that this is perhaps a misrepresentation of the situation because such action by the State could actually decrease the safety of nuclear power reactor operation. I said that I would send a memo to Flanigan putting the whole situation in perspective for him.

I met with William R. Gould (Senior Vice President, Southern California Edison Sompany), together with Commissioners Ramey and Thompson, in Ramey's office. Gould described for us the strong attitude against fossil-fueled power plants in the Los Angeles area, especially in Orange

County, and the growing favorable attitude toward nuclear power plants which has been brought about by the air pollution problem. Southern California Edison is considering stepping up its nuclear power plant construction schedule as a result of this development. They have room for three 1,000 Mw power plants on their San Onofre site. They are also considering building a nuclear power plant at their Huntington Beach site which, however, is surrounded by too large a population density to meet the AEC's present siting criteria. We agreed, therefore, that they might undertake a publicly announced study to investigate the future possibility of siting nuclear power reactors on this site.

I received a letter from Governor Don Samuelson of Idaho (copy attached) in which he explains his plan to request the Idaho Nuclear Energy Commission to determine the feasibility of obtaining support for the MTR by leasing beam holes and related facilities to universities in the U.S. for research.

I received a memorandum from President Nixon (copy attached) addressed to the Heads of Executive Departments and Agencies, advising that he is expanding his Federal Information Center program, which provides single points of inquiry to the public on all Government activities, and asking that all agency heads cooperate in this effort.

Thursday, October 30, 1969 - D.C.

Helen and I attended a reception and luncheon of the D.C. Chapter of the Achievement Rewards for College Students Foundation (ARCS), at the National Aviation Club, 1156 15th Street, N.W. At the head table I sat between Mrs. Ralph Becker (First Vice President) and Mrs. W. Bruce Arnold (President) of the D.C. Chapter of ARCS. Also at the head table were Mrs. Finn Ronne (whose husband, an architect and Antarctic explorer, is the son of an associate of Roald Amundsen), Ellery Woodworth (Vice President, Johns Hopkins University), and Dr. Robert Loftness. Others present included Dr. and Mrs. Lloyd H. Elliott (President, George Washington University), Mrs. Kenneth Nichols, Mrs. Craig Hosmer, Mrs. Charles Weaver, Mrs. C. Lehman, Mrs. Carl Shipley, Mrs. J. Adair, Mrs. John Murphy, Lieutenant Colonel (Mrs.) Lucille Dion, Mrs. George Troutman, Mrs. Jean Bradford, Mrs. Edward Crosland, Mrs. Robert Atwood, Mrs. S. Weber, Mrs. John Graham, Mrs. Robert Scott and Mrs. Joy Hopkins.

After the luncheon Mrs. Arnold (whose husband is the son of General Hap Arnold) introduced a number of those present and then called on Mrs. Becker, who, in turn, introduced Bob Loftness, who introduced me. I then talked on the peaceful uses of atomic energy, showing about 40 slides with the help of Stan Schneider. During the talk I presented Mrs. Arnold with a wood plastic gavel and board and at the end of the talk made available to those present a number of the Understanding the Atom pamphlets.

At 3:30 p.m. I met with Mr. Constantinos A. Doxiadis (President, Doxiadis Associates, Inc.) of this city and Athens, Greece. He told me about the urban Detroit area development project which he has undertaken with Walker Cisler. Cisler had already sent me two volumes of a report entitled, "Emergence and Growth of an Urban Region." Doxiadis is interested in integrating into his plan means of coping with the thermal



UNCL. BY DOE
-NOV 86

STATE OF IDAHO

OFFICE OF THE GOVERNOR

BOISE

DON SAMUELSON
GOVERNOR

October 27, 1969

Dr. Glenn T. Seaborg, Chairman
United States Atomic Energy Commission
Washington, D.C. 20545

Dear Dr. Seaborg:

I enjoyed our phone conversation of October 21st, and I appreciated the letter I received on October 6th from Acting Chairman W. E. Johnson, both on the subject of the Materials Testing Reactor.

As per our discussion, I plan to request our Idaho Nuclear Energy Commission to determine the feasibility of obtaining support for the MTR as the Western Beam Research Reactor by leasing beam holes and related facilities to universities in the United States for research. The lease will probably be done on a one-year lease basis with an option to renew for three to five years. The universities may sub-lease their beam if they so desire.

Also, we plan to investigate, with companies like General Electric, the possibility of industrial participation so that the overall cost of research will be minimized. This participation may take the form of a competitive bid for capsule space for isotope production by current suppliers. A similar approach may be considered for a beam for neutron radiograph work.

It is understood that a number of other federal agencies may desire to participate in research at the MTR. This will be investigated.

If we can get universities and/or state legislatures to identify money for the lease of some beam holes, I believe we stand a fair chance of obtaining the incremental cost necessary to continue outstanding research at the MTR.

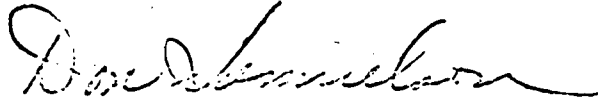
At the moment, we do not plan to involve foreign researchers; nevertheless, we are anxious to know of any limitations that we should consider in this regard.

Dr. Glenn T. Seaborg
October 27, 1969
Page 2.

Actual operations of the MTR will be done by Idaho Nuclear Corporation as outlined in the Associated Western Universities proposal.

As soon as we begin to make some progress, we will keep Mr. William Ginkle informed. We solicity any suggestions that you may have and continue to request your close cooperation.

Sincerely,



DON SAMUELSON
GOVERNOR

DS:k

THE WHITE HOUSE

WASHINGTON

UNCL. BY DOE
NOV 86

October 27, 1969

MEMORANDUM TO THE HEADS OF EXECUTIVE
DEPARTMENTS AND AGENCIES

SUBJECT: Better Service to the Public

On assuming the responsibilities of this office, I made the observation that our Executive Branch needs to be more responsive to the people we serve. Early in the Administration I directed the reorganization of Federal regional offices so that for the first time related agencies will have common regional headquarters and common regional boundaries. I established the Office of Intergovernmental Relations to smooth coordination of Federal, State and local efforts.

As a means of furthering better service to the public, I believe the program establishing Federal Information Centers to provide single points of inquiry to the public on all Government activities is a good one. It should now be extended from its present number of nine to every major metropolitan area. I request that all agency heads cooperate in this effort. They should also explore the feasibility of combining Government information and referral centers in a community into one public information center.

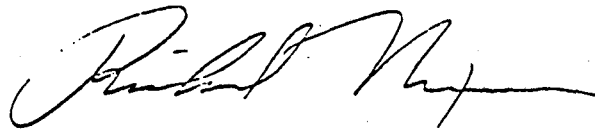
In addition to providing easy access for the citizen to information about all Government services from a central location, the Federal Information Centers should also be places for receiving ideas and suggestions from the public. This would carry out the "listening post" concept which I first mentioned during the campaign and which received enthusiastic response across the country. The newest Center, opening October 28 in Philadelphia, will be the first to embody the "listening post" idea. Civil Service Commission Chairman Robert E. Hampton and General Services Administrator

Robert L. Kunzig will notify you of the procedures to be instituted for handling the special correspondence which this Center and the succeeding "listening posts" will generate.

I am asking Chairman Hampton, whose staff initially developed the Federal Information Center concept, and Administrator Kunzig, whose Agency has had experience in administering the existing Information Centers, to proceed as rapidly as possible in establishing additional Centers. The General Services Administration will operate them. The costs of the Centers should be shared by all benefiting agencies. State and local governments are to be invited to participate so that a citizen might receive information relative to all levels of government from one central point in a community.

In a further effort to meet the challenge of helping our citizens with more responsive and more effective service from their Executive Branch, I have asked Chairman Hampton to coordinate agency activities in bringing the best possible service to the public in all other practical ways. I request that you consider what steps you can take now to improve your service to the public and how you can assure that action will be taken to make your service as responsive as possible. Please designate a top official who will have responsibility for providing leadership and continued attention to improving your organization's service to the public and send the name of this official to Chairman Hampton.

I have asked Chairman Hampton and Administrator Kunzig to report to me periodically on the progress made in further improving service to the public, with particular attention to the Federal Information Center and the "listening posts." They will be in touch with you for suggestions and assistance in this regard. I solicit your personal support in this program to make Federal agency service to the public as responsive as possible.



effects of nuclear power plants, beginning with the Enrico Fermi reactor near Detroit. I introduced him to Rubin, Bloom and Schneider, and we agreed that we would get in touch with his Washington office to set up a meeting with him to discuss this matter sometime during his next trip (in December) to the United States.

I called Tom Whitehead regarding Victor Cohn's article in this morning's Washington Post regarding yesterday's hearings on the environment, and in particular, regarding the penultimate paragraph: "But LeVander (Governor of Minnesota) later visited Vice President Agnew and said he was 'pleased.' Representative Clark MacGregor (R-Minn) said earlier this week that Agnew feels Minnesota or any state should be able to make tougher anti-radiation rules if it wants, using federal standards only as a minimum." I said I am concerned lest the Vice President paint himself into a corner on this, and suggested strongly that we should try to see the Vice President, because it is possible that LeVander could have misled him. Whitehead said he has a call in to the Vice President's office and he'll find out what was discussed, and then he'll come back to me. As agreed in our phone conversation late yesterday afternoon, I again said we are working on a short statement on the AEC-Minnesota issues for both Whitehead and Flanigan. (Copies of two newspaper articles by Victor Cohn on this subject are attached.)

Helen and I attended the 1969 Annual Republican Dinner held in the Presidential Ballroom of the Statler Hilton Hotel. Preceding the dinner we attended a reception in the New York Room, which was given by Mr. and Mrs. Edmund Pendleton, Jr. (Chairman, D.C. Republican Committee) and the general reception in the Congressional Room.

We sat at a table with General and Mrs. Elwood R. Quesada, Mr. and Mrs. James Lemon (the former owner of the Washington Senators), Mr. and Mrs. Colburn (a banker), Mr. Whitney Gilliland (Member of the CAB). I sat next to Mrs. Quesada which gave me an opportunity to get better acquainted with her.

Others present at the dinner included Secretary and Mrs. David M. Kennedy, Secretary and Mrs. George W. Romney, The Honorable Rogers C. B. Morton (Chairman, Republican National Committee), Mayor Walter E. Washington (who left early after making a few welcoming remarks), Congressman and Mrs. Joel Broyhill (Virginia), Congressman and Mrs. Fletcher Thompson (Georgia), Congressman and Mrs. Clark MacGregor (Minnesota), Congressman and Mrs. Donald Brotzman (Colorado), Mr. and Mrs. Russell Train (Under Secretary of the Interior), Mr. and Mrs. Rocco C. Siciliano (Under Secretary of Commerce), Mr. Robert Mayo (Director, Bureau of the Budget), Mr. Paul McCracken (Chairman, CEA), Mr. and Mrs. Bryce Harlow (Congressional Relations Adviser to the President), Mr. and Mrs. Charles A. Peacock (National Mediation Board), Mr. and Mrs. Lewis Strauss, C. Thomas Clagett, Jr. (Chairman of the Dinner Committee), Mr. and Mrs. J. Willard Marriott, and Mr. and Mrs. Carl L. Shipley.

Clagett, serving as master of ceremonies, introduced Pendleton, who made a short welcoming speech and introduced Rogers Morton who gave the main talk. The thrust of Morton's talk was somewhat defensive, indicating that the Republican Party should be more positive in its outlook than it had been in the past. The whole evening was more staid and less exciting than dinners sponsored by the Democratic National Committee.

State Battle in Power Plant Waste Asked

By Victor Cohn

Washington Post Staff Writer

Tougher state regulation of pollution-producing power plants—nuclear and conventional—was backed yesterday by Federal Power Commission chairman John N. Nassikas, despite a current Atomic Energy Commission fight with the state of Minnesota over such regulation.

Both Nassikas and presidential science adviser Dr. Lee A. DuBridge forecast growing public agitation against electric power plants that people think are despoiling their environment.

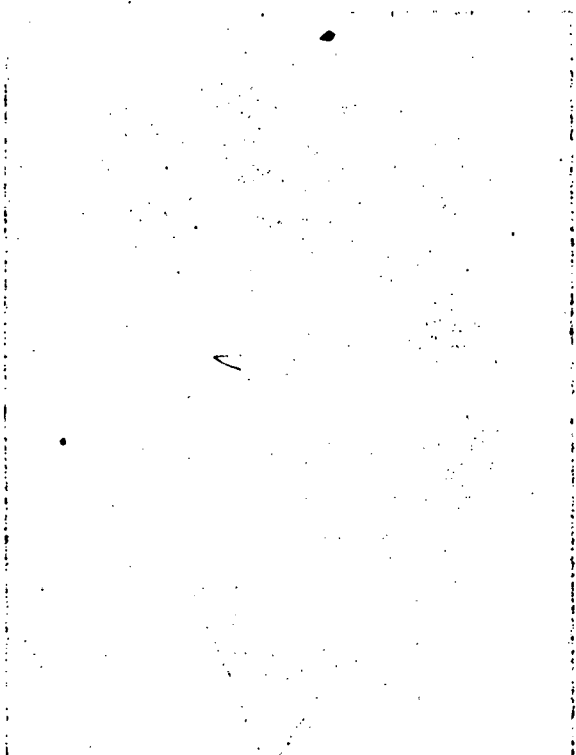
"I think" public protest is "going to get worse before it gets better," said Nassikas, a Manchester, N.H., utility and corporation lawyer named by President Nixon to succeed Lee C. White as federal power chief.

Both Nassikas and DuBridge testified as the Joint Committee on Atomic Energy began a major series of hearings on power plants' environmental effects, an issue now triggering fights in several states.

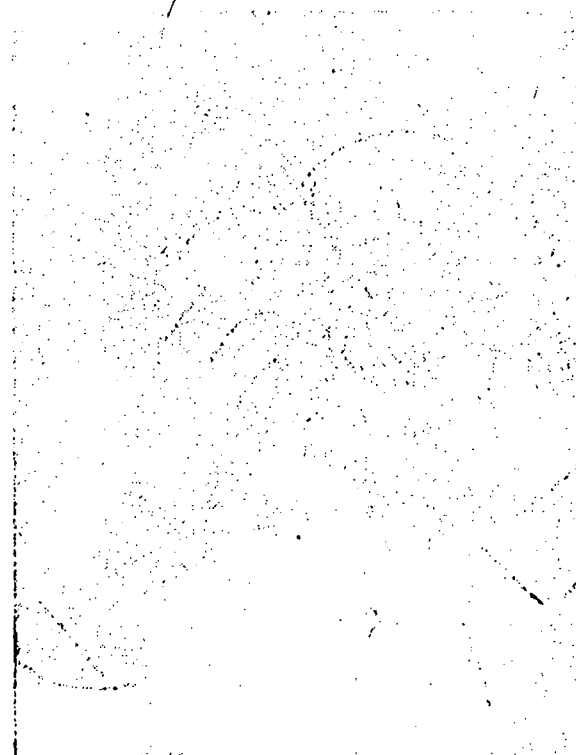
"Today," DuBridge said, "the problem is most intense in the Northeast, but it is just a matter of time—if in fact that time has not already arrived—when less crowded areas will join the ranks of those putting up 'not welcome here' signs.

The United States must double power production by 1980, DuBridge estimated. But Nassikas reported that 25 new coal or oil-burning plants and 23 nuclear plants are now being delayed, partly by technical problems and partly by environmentally oriented groups.

Delays or not, Nassikas in effect challenged the concept



Presidential science adviser, Dr. Lee A. DuBridge, left, predicts growing public reaction to power plants that are thought to despoil the environment. DuBridge testified



By Bob Burchette—The Washington Post

at the opening hearing of the Joint Committee on Atomic Energy, headed by Rep. Chet Hollifield (D-Calif.), right, on environmental effects of power plants.

of complete federal control over nuclear power—the issue now alive in Minnesota—by praising "the initiative some states are taking to strengthen or institute new procedures" to maintain their environment.

Minnesota is trying to make new nuclear plants observe radiometric controls tougher than the AEC's, although both the AEC and members of the Joint Committee maintain that federal law gives the AEC exclusive regulation over

radioactive discharges into air and water.

Nassikas did not specifically refer in his remarks to the Minnesota fight but did say, "I regard effective state regulatory review, including coordinated review by all affected state agencies, as a most essential complement to the process of regulatory participation envisioned by FPC."

He praised Maryland legislation requiring all new plants to win a state certificate of ne-

cessity. This in itself is not unusual, he pointed out, but "it is unusual" that the Maryland Public Service Commission will consider "aesthetics, historic sites and effect on air and water."

This could make even more trouble than Minnesota's rules, conceded AEC Commissioner James T. Ramey, "depending on how tough Maryland gets." Several Maryland scientists and legislators—concerned, over a new nuclear

plant on Chesapeake Bay started before the new Maryland law took effect—have urged a tougher look at future plants.

Nassikas likewise described a new California State Power Siting Committee that is to review sites and intervene, if desired, before the California Public Utilities Commission or AEC. He said New York state has given its Atomic and Space Development Authority "significant authority" over nuclear sites.

Seaborg Warns A-Power Foes

By Victor Cohn

Washington Post Staff Writer

Some foes of nuclear power are engaging in "unsubstantiated fear-mongering" and "hysteria" and creating a danger of perilous future power failures in American cities, Dr. Glenn T. Seaborg charged yesterday.

The U.S. Atomic Energy Commission chairman and Nobel prize-winning chemist, ordinarily a quiet, soft-spoken man, yesterday was a man deeply stirred.

He told the Joint Committee on Atomic Energy, now investigating the effects of nuclear plants on the environment:

"In years ahead," if critics prevail, "today's outcries about the environment will be nothing compared to cries of angry citizens who find power failures due to lack of sufficient generating capacity have plunged them into prolonged blackouts—not mere minutes but hours, perhaps days—when their health and well-being and that of their families may be seriously endangered.

"The environment of a city

whose life energy has been cut, whose transportation and communications are dead, in which medical and police help cannot be had, and where food spoils and people strifle or shiver while imprisoned in stalled subways or darkened skyscrapers—all this also represents a dangerous environment."

"Problems Manageable"

Answering charges that nuclear plants spill dangerous radiation into the rivers and air, Seaborg maintained: "The environmental problems associated with nuclear energy are manageable. With good planning and work, we can have safe, clean and reliable nuclear power, as much of it as we will need."

If fact, he argued, "nuclear energy has arrived on the scene, historically speaking, in the nick of time"—both because of huge future demands for electricity and for a cleaner energy source than coal and oil-burning plants.

The pollution load from burning coal and oil alone, he maintained—if they alone were used to produce future

power "in the massive amounts" man will need—"would pose a disastrous environmental hazard."

"This thought becomes staggering when one considers that two billion people in the world still have no electricity, and Asia, with half the world's population, produces only one-tenth of the world's total electric power. In raising their standard of living, these people cannot and will not relive our Industrial Revolution, the Coal Age. They obviously are going to enter the Nuclear Age."

Minnesota Governor

Seaborg's defense was heard by one of the AEC's current antagonists, Minnesota's Republican Gov. Harold LeVander, here to meet later in the day with the atomic commissioners.

They met, discussed Minnesota's disputed position—that it can make nuclear plants adopt tougher radiation standards than the AEC's—and, LeVander said later, settled nothing.

But LeVander later visited Vice President Agnew and

said he was "pleased." Rep. Clark MacGregor (R-Minn.) said earlier this week that Agnew feels Minnesota or any state should be able to make tougher anti-radiation rules if it wants, using federal standards only as a minimum.

Federal Power Commission Chairman John N. Nassikas said The Washington Post erred yesterday in reporting that his testimony Monday in effect supported Minnesota. "We believe the law gives the AEC control," he said. "It is this which is about to be tested in the courts"—in suits by Northern States Power Co., nuclear plant builder, against the state of Minnesota.

Friday, October 31, 1969 - D.C.

I had lunch with Arthur Ruark and Justin Bloom at the All States Cafeteria (Pennsylvania Avenue). This was sort of a farewell luncheon for Ruark, who is retiring today. He explained to me the investigations that he has been making into the validity of Australian scientists' claim for the discovery of quarks by measuring their ionization tracks in cloud chambers. On the basis of his own experience and talks with many people in the field, he has become very skeptical about the validity of the Australians' claim.

At 2:45 p.m. I presided over Information Meeting 957. We discussed a communication from John Foster which makes suggestions for updating and revising permissive action link (PAL) devices on nuclear weapons to reflect present hardware, state of the art and DOD policy decisions. We also discussed the problems between the Pacific Northwest Laboratory and the Headquarters Division of Reactor Development that are leading to a serious situation in the construction of the FFTF.

I called William E. Forbes (Regent, University of California) because of my concern about the possibility of the University of California's imposing tuition. This concern is the result of my learning about the difficulties that this would cause a number of students--such a step could make it necessary for them to terminate their education due to inability to meet the requirement. I said I have a son at Berkeley and two at Davis, and it is through them that I have learned about these potential hardship cases. Forbes told me that the Regents who are inclined to impose a tuition may have the majority vote to enable them to do so. He said that one plan--the Monagan plan, proposed by the Speaker of the Assembly--would limit the tuition to students whose parents' income is greater than \$12,000 per year. I said this would work a hardship on those students who wished to be independent of their parents, and Forbes agreed. He was delighted that I called, and suggested I might call President Charles Hitch and Vice President Jack Oswald and express my concern. He added that I might suggest to them that they find a copy of the 7-page memorandum issued by the Berkeley Academic Senate about two years ago; this made a strong case against tuition and might be surfaced again. He also agreed that I might call Ed Carter (Chairman of the Regents Finance Committee) and possibly Ed Pauley.

When I told him I would be in San Francisco November 20, a time that would coincide with the meeting of the Regents in San Francisco on November 20-21, he suggested that arrangements might be made for my meeting with the Regents Finance Committee, or Educational Policy Committee, which would be held the afternoon of November 20. He said he would be glad to meet with any students who wanted to discuss this matter with him, and he gave me his phone numbers and addresses, both home and office. He said he will stay at the Clift Hotel for the Regents' meeting. He told me that the Regents who are resisting the imposition of tuition, besides himself, are Heller, Coblentz, Simon, Dutton, Ross, with Pauley and Boyd on the fence.

I sent a letter to Congressman Holifield (copy attached) in reply to his of September 17, 1969 (copy attached) pointing out the value of U.S. cooperation with the IAEA in placing some of our industrial nuclear facilities under IAEA safeguards.



UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

COPY NO. ---- 3
October 31, 1969

INFORMATION MEETING 957

2:45 p.m., Friday, October 31, 1969, Chairman's Conference Room, D. C.

1. AEC 809/143 - Proposed Westinghouse Assistance to Finnish Reactor Project

To be discussed with the Joint Committee staff and rescheduled.
(AGMMA-Congr.)

2. White House Mail Procedures

Noted. (Rubin-SECY)

3. AEC Payment of Fees for the AIF/ANS Meeting, November 30-December 4, San Francisco

Noted. (OC-IP)

4. Commissioners' Attendance at the AIF/ANS Meeting, November 30-December 4, San Francisco

The White House is to be informed. (SECY-Rubin)

5. October 27 Letter from John Foster re General Characteristics for PAL Systems Used within Nuclear Weapons

Staff review is requested. (AGMMA)

6. Proposed Letter to Chairman Holifield re the Commission's Proposal to Enter into New Safeguards Training Offer with IAEA

Approved. (Rubin)

7. AEC 720/209 - Lifting of Restrictions on Enrichment of Foreign Uranium and Disposal of AEC Excess Uranium Inventory

Discussed and scheduled for further consideration on Monday, November 3.
(SECY)

8. Mr. Price's October 31 Memorandum re Proposed Letter to Secretary Hickel

The letter is not to be sent. Commissioner Ramey will telephone Under Secretary Train and Assistant Secretary for Water Quality and Research Klein. (DR-Fremling)

9. Agenda for Commissioners' November 6 Meeting with the ACRS

Approved. (SECY-DR)

10. ACRS Consultantship (See Secretary's October 23 Memorandum)

Mr. Price will review. (DR)

11. Agenda for the Week of November 3, 1969

Approved. (SECY)

12. FFTF Project

Discussed.

W. B. McCool
Secretary

4:45 p. m.

PRESENT:

COMMISSIONERS:

Chairman Seaborg
Commissioner Ramey
Commissioner Johnson
Commissioner Thompson
Commissioner Larson

STAFF:

Mr. Hollingsworth
Mr. Bloch
Mr. Brown
Mr. Hennessey
Mr. Rubin
Mr. Ryan
Mr. McCool
Mr. Quinn*
Mr. Faulkner*
Mr. Vinciguerra*
Mr. Kavanagh*
Mr. Hudgins*
Mr. Price*
Mr. Beck*

DISTRIBUTION:

Commissioners
General Manager
General Counsel
Secretary

*Attendance by Topic (s)



UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

ENCL. BY DOE
NOV 86

OCT 31 1969

Honorable Chet Holifield
Chairman
Joint Committee on Atomic Energy
Congress of the United States

Dear Mr. Holifield:

This refers to your letter of September 17, 1969, in which you expressed reservations about the Commission's proposal to enter into a new safeguards training offer with the IAEA. Your letter was quite timely since I was able, during my recent trip to Vienna, to urge the Soviets once again to place some of their facilities under IAEA safeguards.

Before reporting on these talks, however, I should like to explain more fully the reasons that have led me to conclude that the US should negotiate a new safeguards training offer with the IAEA.

Our basic reason for proposing a new arrangement relates to our continued desire to provide the IAEA with the experience that will enable it to assume, in a competent fashion, the far-reaching safeguards responsibilities called for by the NPT. The Agency is gearing up in a variety of ways to assume these broader responsibilities and it is expanding its staff, performing various preparatory studies, and is starting to develop the necessary agreements that it might be called upon to execute pursuant to the Treaty.

Notwithstanding steady progress, the future effectiveness of the IAEA under the NPT will depend on the Agency's ability, during this interim period, to obtain additional training and experience in a variety of conditions and it was with the view of helping the Agency acquire such experience that we concluded that a new and more flexible training offer to replace our Four Reactor offer would be highly desirable. We have also felt that by participating with the Agency in such a cooperative venture we would exercise a continuing strong influence on the manner in which the Agency goes about discharging its safeguards responsibilities.

In expressing this view I should emphasize that the Commission has not felt that the US should assume the sole responsibility for fostering the development and acceptance of IAEA safeguards. We have been in full accord with the Committee's view that it would be desirable if this responsibility were shared equitably and if the other nuclear powers matched our efforts by permitting the IAEA to apply its safeguards to activities under their jurisdictions. To this end, we have been successful in encouraging the UK to adopt a policy comparable to our own and the UK has not only already placed the Bradwell facility under IAEA safeguards but also has pledged to place its entire civil nuclear program under IAEA safeguards when the safeguards called for by the NPT come into effect.

To this end, too, we have urged the Soviet Union to voluntarily agree to place some Soviet activities under IAEA safeguards. Despite our efforts the Soviet Union has thus far refrained from placing any of its facilities under IAEA safeguards.

Notwithstanding this past Soviet hesitancy and with your letter in mind, I raised this subject with Dr. Morokov and forcefully urged him to encourage his government to place some facilities under IAEA inspection.

In response, Dr. Morokov explained that the USSR continues to be opposed to the application of IAEA inspection on Soviet territory in the absence of having such inspection take place within the context of an overall agreement on nuclear disarmament. In addition, he reiterated the Soviet view that IAEA

inspection, in the nuclear weapon states, was basically irrelevant pending such disarmament inasmuch as a nuclear weapon state already possesses nuclear weapons and thus, in the Soviet view, protection against "diversion" has no realistic meaning.

It is quite significant and encouraging, however, that Dr. Morokov indicated that the USSR is prepared to consider providing Agency inspectors with additional training experience by providing them with access to Soviet facilities - even though the facilities involved would not formally be placed under safeguards. While Dr. Morokov made no commitments as to the final Soviet decision, his statement indicates that the Soviets recognize the same need to provide the Agency with training and demonstration opportunities as we do. This was a significant advance over prior conversations and it is a development that we intend to pursue further.

It also should be noted that IAEA safeguards personnel (including US citizens) already have had the opportunity to visit the USSR to discuss safeguard questions, and that the USSR has been generally cooperative in participating in Agency safeguards panels and in supporting the Agency's research and development activities in this field.

Under these circumstances, the question that we face is whether we should refrain from negotiating our proposed new training offer with the Agency until the Soviets agree to place some of their facilities under Agency safeguards or firm up their training ideas. In our judgment, it would not be desirable for us to tie our actions to those of the Soviets in either way since timely development of the Agency's safeguards capability warrants our proceeding on the basis we have proposed.

In considering this question, I believe it should be recognized that the fundamental objective of Agency safeguards as well as the NPT itself is not to limit the Soviet nuclear weapons capability, but to avoid the development of independent capabilities in other countries. The basic US

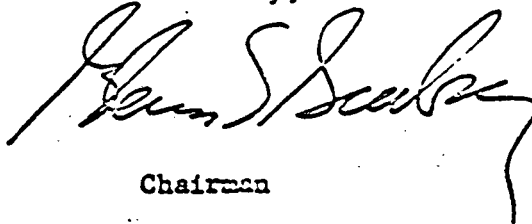
policy objective, therefore, has been to achieve a widespread acceptance and confidence in the Agency's safeguards system by the non-nuclear weapon states. Accordingly, while more active Soviet participation would be desirable, and hopefully may be forthcoming, I believe we should regard growing effectiveness and acceptance of the Agency's safeguards system as the fundamental return or quid pro quo that we hope to achieve from our assistance to the Agency's safeguards system.

The costs to the US Government will be within the Commission's control since the number and type of facilities to be placed under Agency safeguards and the duration of the arrangement with regard to any specific facility also will be subject to our control. While the facilities involved will be selected from the standpoint of their value in providing the IAEA with desirable experience we shall also keep the cost factors very much in mind in making our decision.

Under the proposed new arrangement, we would not expect the Agency to be involved with more than approximately five facilities or activities at any one time and we, therefore, contemplate that the anticipated burden on the US in implementing the proposal would be roughly equivalent to that which has been incurred in the past. We are enclosing with this letter an analysis prepared by our staff of the estimated costs in dollars and manpower that have been associated with the implementation of our current voluntary offer.

I hope that this letter has answered your questions on this matter, and that it has served to allay the concerns you have expressed. The Commission or the staff, of course, will be pleased to answer any additional questions the Committee may have on this matter and will keep the Committee fully informed concerning the progress in arranging for and implementing the new offer.

Cordially,



Chairman

Enclosure:
As stated

ECONOMIC ASPECTS OF IAEA SAFEGUARDS APPLICATION IN THE U. S.

EFFECT ON FACILITIES

The IAEA safeguards activities were carried out in both governmental and industrial facilities and these are treated together here. The estimates include all facility staff time spent in association with the IAEA agreement. This includes: inspector escorts; facility activities in connection with inspection; facility activities in connection with accountability records and reports; escorts and discussion with non-inspector visitors; assistance in on-site training of IAEA inspectors; and any other relevant administrative work and correspondence.

In evaluating the economic effect on the facilities, it should be noted that in no case was it necessary to add staff or delay operations because of IAEA safeguards implementation. While it is clear that facility staff did spend time and effort to satisfy the IAEA requirements, the only known case of an actual expenditure involved three thousand dollars for the construction of a separate storage area at Richland, Washington by an AEC contractor.

The total value of the activities carried out by the facilities, including the construction of the storage area mentioned above, is estimated on the basis described above, to have been approximately \$53,000 over the 5 year period since the initiation of the present safeguards agreement. Two-thirds of the total are associated with safeguards on the plutonium produced in the Yankee reactor.

EFFECT ON USAEC

The effort by the USAEC was principally in two areas: (a) to assist the IAEA to derive maximum utility from the opportunities afforded under the agreement and (b) to provide liaison between U. S. industry and the IAEA. In a sense, all of these activities implemented the policy of the U. S. Government to promote the development and acceptance of effective international safeguards. In the absence of the "Four Reactor Agreement", staff time certainly would have been devoted to other means of achieving these ends. No attempt has been made to apportion the effort along these lines, however, and all staff time directly related to the implementation of IAEA safeguards in the U. S. has been included in the estimate.

The total value of the USAEC staff time involved is estimated on the basis described above, to have been approximately \$25,000 over the 5 year period since the initiation of the present agreement. As with the facilities, about two-thirds of this total are associated with safeguards on the plutonium produced in the Yankee reactor.

WILLIAM PRICE, ILL.
WILLIAM M. ASPINALL, COLO.
JAMES H. YOUNG, TEX.
FRED EDMONDSON, OGA.
LESLIE HOSMER, CALIF.
JOHN R. ANDERSON, ILL.
WILLIAM M. McCULLOCK, OHIO
CATHERINE MAY, WASH.
EDWARD J. BAUSCA, EXECUTIVE DIRECTOR

JOHN D. EASTON, D.C.
VICE CHAIRMAN
RICHARD B. RUSSELL, GA.
CLINTON P. ANDERSON, N. ME.
ALBERT COPE, TENN.
HENRY M. JACKSON, WASH.
GEORGE D. AIKEN, VT.
WALLACE F. BENNETT, UTAH
CARL T. CURTIS, IOWA
MORRIS COTTON, N.H.

Congress of the United States

JOINT COMMITTEE ON ATOMIC ENERGY

WASHINGTON, D.C. 20510
September 17, 1969

RECEIVED BY DOE
NOV 86

Dr. Glenn T. Seaborg
Chairman
U.S. Atomic Energy Commission
Washington, D. C. 20545

Dear Dr. Seaborg:

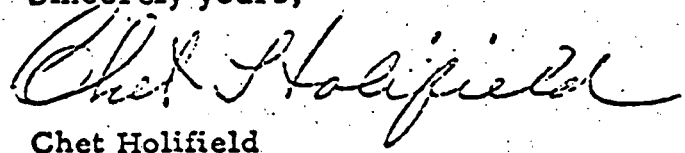
A letter from the AEC dated September 3, 1969 states that the Commission is considering a new offer of assistance to the IAEA in the form of a more flexible agreement concerning safeguards. Such an agreement would provide an opportunity for IAEA to apply safeguards at certain U.S. facilities. As the Commission's letter points out, over the past six years the U.S. has provided support to the IAEA safeguards programs by making U.S. nuclear facilities available "for the IAEA to safeguard."

It seems to me that it is time to let other nuclear powers increase their share of the burden of supporting the IAEA safeguards program. In this connection would you advise the Committee if the United States or the IAEA is pursuing the issue of getting the U.S.S.R. to open its facilities to IAEA inspection in the same manner that the U.S. has done.

The United States is not required by the Non-Proliferation Treaty to place its facilities under IAEA inspection; however, we have done so to promote good will and to enable IAEA to develop safeguards procedures. It has cost U.S. private industry both time and money to allow these inspections.

In connection with the AEC's proposed new offer of assistance to IAEA, it would be appreciated if you would provide the Committee with the justification and total cost for such an arrangement. Also, would you advise us of the total costs to AEC and private industry connected with the safeguards inspection made by IAEA personnel at U.S. facilities including the Yankee Atomic Plant and Nuclear Fuels Services Plant. Please include in your analysis an estimate of the manpower and operational costs to U.S. private industry incurred when industry had to divert manpower or make operational changes in connection with an IAEA visit.

Sincerely yours,



Chet Holifield
Chairman

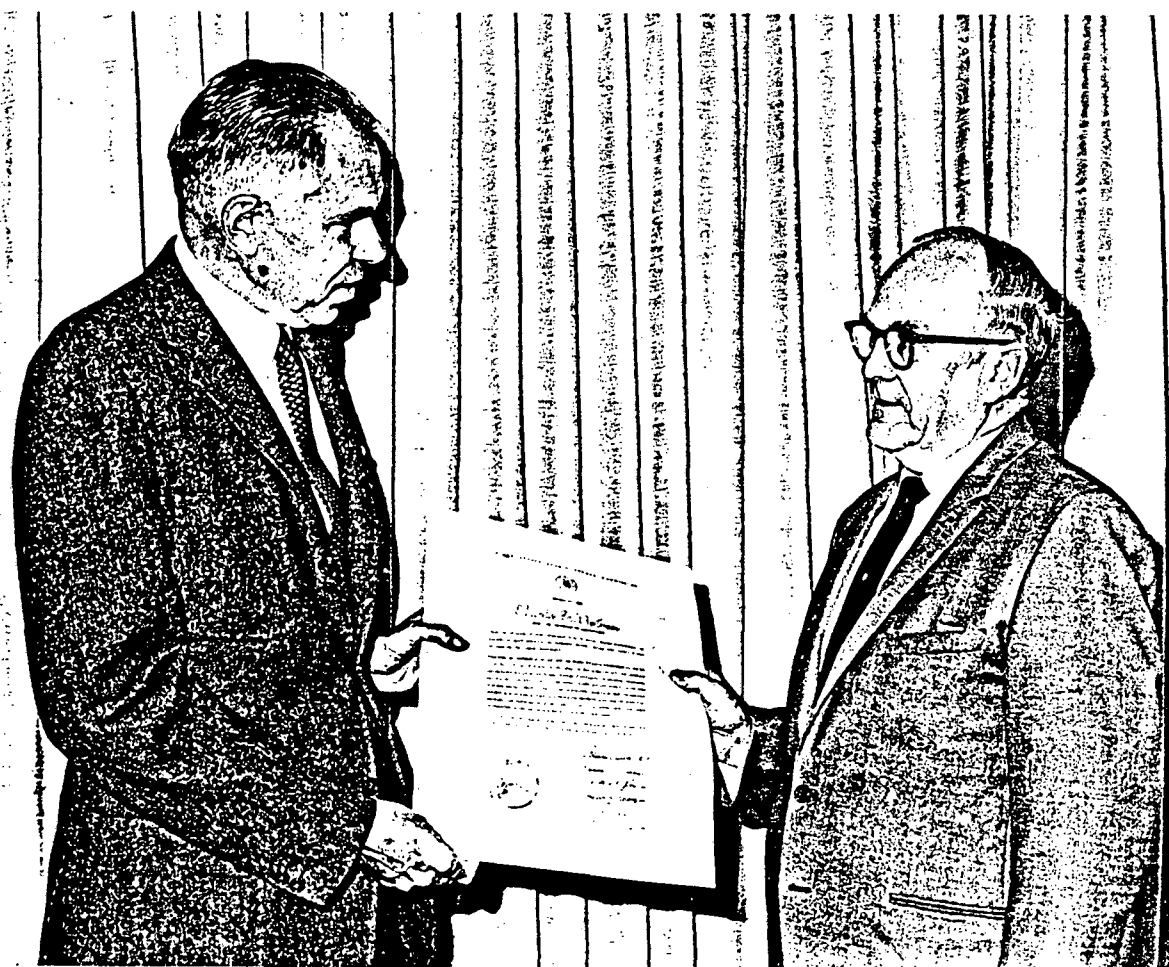
I received a copy of a letter (attached) that Secretary Laird wrote to the JCAE concerning their efforts to improve NATO security.

I received a letter (copy attached) from Dave Packard advising that the nuclear readiness program has been reviewed, and that he has concluded that it should be continued at a reduced level of effort as I have suggested.

I received a letter from Elliot L. Richardson (NSC Under Secretaries Committee) (copy attached) advising me that my suggestion to simplify underground test review procedures has been approved.

I received letters from President Lyndon B. Johnson, Lewis Strauss and John McCone (copies attached) thanking me for sending them a copy of Atomic Shield, 1947-1952. (Also attached is a letter from Lewis Strauss to Drs. Richard G. Hewlett and Francis Duncan commending them on this effort.)

I presented a Special Certificate of Retirement to Curtis Nelson, who retired today as Director of the Division of Inspection, after 34 years of public service.



Presentation of Special Certificate of Retirement; October 31, 1969.
L to R: Seaborg, Curtis Nelson.

10/31/69

THE SECRETARY OF DEFENSE
WASHINGTON, D. C. 20301

29 AUG 1953

Honorable Chet Holifield
Chairman
Joint Committee on Atomic Energy
Congress of the United States
Washington, D. C. 20510

Dear Chet:

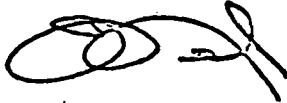
As you indicated in your letter of August 19, improving NATO security is a matter of continuing personal concern to me. The several espionage cases which you mentioned are the outward indication of the success of the intelligence collection effort of the Soviet Bloc in penetrating the Alliance.

Through our Ambassador at NATO we have made known the seriousness with which we regard these espionage cases. Secretary General Brosio has likewise expressed his personal concern. While we are working in concert with the international staff to combat Bloc intelligence efforts by strengthening internal security measures, it is our practice to screen carefully the classified material which we share with our Allies in order to protect our essential interests in the event of possible compromise. Overall, while we must acknowledge that the NATO security problem is serious, it still seems in our best interest to continue to support the Alliance with the classified information required in support of NATO military plans.

Within the Defense Department I have emphasized to my staff the importance of conservatism with regard to NATO security matters. Your staff is well acquainted with some of our efforts. In particular, I believe there has been full and timely liaison between my Assistant for Atomic Energy, Dr. Walske, and your staff regarding the several security cases which you cited. We shall continue this practice on the Roussilhe case, as you have requested.

If I may be of any further assistance on this matter, please let me know.

Sincerely,

A handwritten signature consisting of several overlapping loops and a final flourish.

THE SECRETARY OF DEFENSE
WASHINGTON, D.C. 20301

30 OCT 1969

Honorable Glenn T. Seaborg
Chairman
U.S. Atomic Energy Commission
Washington, D. C. 20545

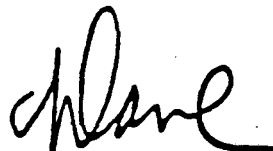
Dear Glenn:

The Nuclear Readiness-to-Test Program has been reviewed and I have concluded that it should be continued at a reduced level of effort. Instead of the nominal \$20 million/year DoD program, it should be continued at approximately \$7 million/year. This action is driven by the current severe budgetary constraints. I understand that your Division of Military Applications, faced with similar budgetary problems, has been considering elimination or reduction of your activities in this area. The lower level of effort includes deactivating Joint Task Force Eight and our readiness-to-test facilities on Johnston Atoll. The Director, Defense Atomic Support Agency, is being requested to develop, jointly with the AEC, a new Nuclear Test Readiness Plan.

If you agree with this reorientation, I propose that the revised Nuclear Test Readiness Plan should be jointly submitted to the President.

Sincerely,

cc: CJCS
Dir, DASA



THE UNDER SECRETARY OF STATE
WASHINGTON

ENCL. BY DOE
NOV 86

NSC UNDER SECRETARIES COMMITTEE

October 31, 1969

Dear Glenn:

You wrote me on October 20, 1969 to suggest a simplification in the underground test review procedures by which White House approval for tests once granted for a specific quarter would continue to be effective throughout the following quarter unless specifically withdrawn.

I think your suggestion is a good one. We have consulted with the White House staff. They have no objection and we can therefore consider this modification to be in effect.

With warm regard,

Sincerely,



Elliot L. Richardson
Chairman

Dr. Glenn T. Seaborg,
Chairman, U.S. Atomic
Energy Commission.



WJ

ENCL. BY DOE
NOV 86

AUSTIN, TEXAS

Dear Glenn:

I was so pleased to receive the copy of Atomic Shield, 1947-1952. It will be a valuable addition to my Library. Thank you very much for your thoughtfulness.

Kindest personal regards,

Sincerely,

A handwritten signature in cursive script, appearing to read "W. J. ...". The signature is written in black ink and is positioned below the word "Sincerely,".

Honorable Glenn T. Seaborg
Chairman
United States Atomic Energy Commission
Washington, D. C. 20545

October 29, 1969

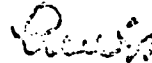
1250 Connecticut Avenue, N.W.
Washington, D.C. 20036

29 October 1969

Dear Glenn:

You were kind to send me a copy of Atomic Shield. Hewlett and Duncan have done a monumental job of research and explicit writing. The first five chapters which I have already read brought back vivid memories of stirring events and the men with whom I worked in a new world. Thank you for your generosity.

Faithfully yours,



Lewis L. Strauss

Dr. Glenn T. Seaborg
Chairman
U.S. Atomic Energy Commission
Washington, D.C. 20545

JOHN ALEX McCONE
612 SOUTH FLOWER STREET
LOS ANGELES 90017

October 27, 1969

UNCL. BY OLE
NOV 86

Dear Glenn:

Thank you very much for sending me a copy of the second volume of the history of the United States Atomic Energy Commission, which is entitled "Atomic Shield, 1947-1952." I have not had an opportunity to read this imposing-looking volume, but I look forward to going through it at my earliest convenience.

Certainly, it covers a most critical period in the history of the Atomic Energy Commission and, for that matter, a period when decisions --controversial as they were --unquestionably affected the destiny of our country.

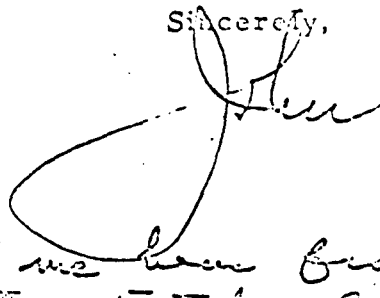
I am delighted that the Commission is pursuing the program adopted years ago of completing an authoritative history of the Atomic Energy Commission and its predecessor, The Manhattan Project. This history will be useful to interested readers and to students, both contemporary and for generations to come.

Your letter in the book reminded me of an amusing incident. The Commission was meeting with Dr. Hewlitt and his staff, as we did periodically to review their progress in writing the history, and I said, "Doctor, with so many books out on this subject, don't you really believe that history is pretty well recorded and, therefore, have you any question in your mind concerning the necessity of this effort?" --to which he replied, "The books you refer to are not history; they are merely individual impressions and, for the most part, narrow in their viewpoint, prejudiced and frequently inaccurate."

I guess, Glenn, that's the difference between a historian and a person who writes things the way he sees them.

With warm personal regards.

Sincerely,



Dr. Glenn A. Seaborg
Chairman
Atomic Energy Commission
Washington, D. C.

407

Let me know how you are

*1250 Connecticut Avenue, N.W.
Washington, D.C. 20036*

ENCL. BY DOE
NOV 86

29 October 1969

Dear Friends:

Your second volume is fully up to the high standard of scholarly research and fine writing which you established with the "New World". Dr. Seaborg sent me a copy of "Atomic Shield" -- a happy choice of title -- and I have spent the past few days immersed in it. The events with which I am familiar are told with accuracy, faithful detail and, not least importantly, with fairness to all the actors in situations of much tenseness and drama. It is a magnificent contribution to American history.

Naturally, I look forward to the next volume which will cover a period of particular interest to me. My recollections and my records are at your service.

With my best wishes, I am

Faithfully yours,

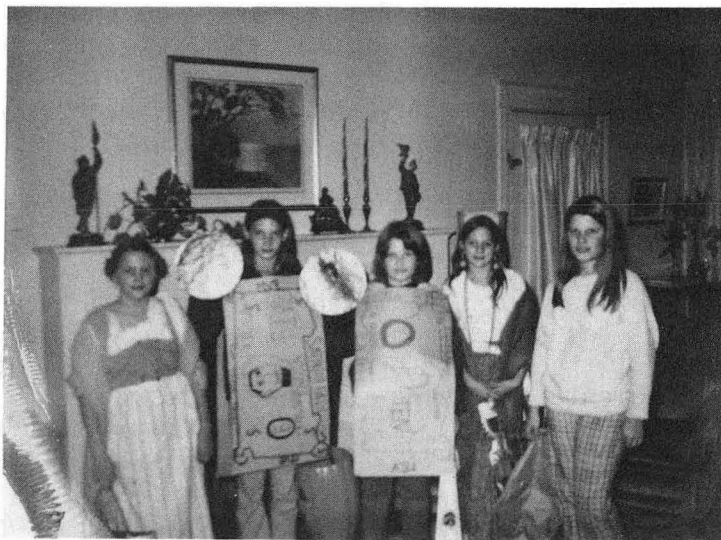
Lewis L. Strauss

Lewis L. Strauss

Dr. Richard G. Hewlett
Dr. Francis Duncan
U.S. Atomic Energy Commission
Washington, D.C. 20545

I attended a reception at the Soviet Embassy in honor of cosmonauts Major General Georgiy Beregovoi (who spent four days in space just a year ago) and Dr. Konstantin Feoktistov (an engineer, who went up in the first spacecraft to carry three men, in 1964). I spoke with them, with the aid of interpreters, about my recent visit to the University of Leningrad to participate in the 100th anniversary of the Mendeleev periodic table. Ambassador Dobrynin told me he very much enjoys reading my speeches, especially those concerned with the future. I talked to Nenko, the Scientific Attache of the Czechoslovak Embassy, and told him I had been very well received in Czechoslovakia and found the visit very interesting. I also had the opportunity to talk with William Foster, and we expressed our gratification that the SALT talks were getting under way.

I took Dianne and her friend, Jessica Nicol, around the neighborhood on a trick-or-treat safari.



Hallowe'en costumes; October 31, 1969.

L to R: Ann Dodd, Dianne Seaborg, Amy Ballou, Laura Dodd, Kathy Ballou.

Saturday, November 1, 1969 - D.C.

At 11:20 I called Peter Flanigan. Flanigan said he was returning my call of October 30. I said that, in the meantime, I had talked to Whitehead. I said that AEC had a meeting last week with Governor LeVander of Minnesota dealing with the question of who has the authority to set the standards for radioactive effluents. We didn't settle anything, but we did explain some of the problems that come with dual regulation and the setting of standards by 50 states in a field as technically complex and innovative as nuclear power reactor technology, and we pointed out that this actually decreases the safety of the reactors: they maximize one aspect of the operation (lower effluents), but place a greater jeopardy on the safety of the operation (because the reactor has to be shut down more often, with resulting possibilities of accidents). Also, some of the levels they are suggesting are ridiculously low--sometimes thousands of times lower than the levels already present in the Mississippi River as it flows by the reactor. I told Flanigan that what concerns me is that, following the meeting, Governor LeVander talked to the Vice President, and the newspaper account of that visit indicated that they may have talked about this, and I don't know whether he had an influence on the Vice President. I wanted to be sure the Vice President wasn't painted into a corner on this.

Flanigan replied he knows the Vice President's general feeling on this subject, and it is: a reasonable state government would accept the AEC regulations; it is right and proper that the AEC set minimum standards, below which no state government can go; but, if an unreasonable state government wishes to impose regulations stricter than those of the AEC, and the AEC agrees they are stricter, then the federal government should not attempt to prevent the state government from being foolish on the side of strictness. Eventually, this action by the state will increase the cost of electricity, and this will soon force the state back to the AEC position. I said this could lead to a less safe condition. Flanigan responded: then it violates AEC standards and the plants will not be licensed. I tried to point out that this is very complex, and that the utility then gets caught in the middle. He retorted that it's unfortunate if a utility feels it is placed in an untenable position by a regulatory agency; this happens quite frequently. I said we can think of a number of outlandish requirements established by a state. Flanigan replied that our federal system assumes that states can be foolish.

I said that Commissioner Thompson is our expert on this subject and he would like to talk to Flanigan or someone at the White House. Flanigan said he would be glad to see Dr. Thompson, and he'll also attempt to set up an appointment with the Vice President.

I worked in the office until 12:30 p.m. and then had lunch with Commissioner Thompson and Julie Rubin at the Paramount Coffee Shop on 18th Street.

I received a letter from John S. Foster regarding development of an improved 155 mm howitzer nuclear projectile (copy attached). I received a memorandum from Commissioner Thompson enclosing a memorandum from the State Department describing U.K. thoughts in the Tripartite Gas Centrifuge Project (copies attached).



DIRECTOR OF DEFENSE RESEARCH AND ENGINEERING
WASHINGTON, D. C. 20301

28 OCT 1969

Honorable Glenn T. Seaborg
Chairman
U. S. Atomic Energy Commission
Washington, D. C. 20545

Thru: The Chairman, Military Liaison Committee

Dear Dr. Seaborg:

Consistent with the planned modernization of our theater nuclear forces, the Department of Defense has a requirement for development of an improved 155mm howitzer nuclear projectile. The joint AEC-DoD Phase 2 feasibility study completed in May 1969 contained a number of proposals which generally meet this objective.

It is requested that the Atomic Energy Commission join with the Department of Defense in development, through Phase 3 of the Joint AEC-DoD Agreement of 21 March 1953, of an improved 155mm nuclear projectile. The desired characteristics, initial operational capability, and quantities are listed in enclosures 1 and 2. Although characteristics for PAL and SCS (Security Container System) are included, it is not clear at this time whether these items will be supplied by the Army or required from AEC. We can leave this matter for later negotiations between DoD and AEC, depending on the progress of alternative AEC and DoD designs.

Military Characteristics and initial Stockpile-to-Target Sequences are being prepared and will be forwarded soon. Since the new projectile will be scheduled for phased entry into the stockpile, replacing existing weapons, we are prepared to work with you to develop a delivery rate which takes advantage of slack periods in other nuclear weapon production programs.

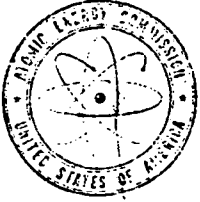
The Department of the Army is designated the cognizant agent for the Department of Defense portion of this development. The Defense Atomic Support Agency will participate in the normal manner.

Sincerely,

John S. Foster, Jr.
John S. Foster, Jr.

Encls - 2

411



UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545


October 30, 1969

MEMORANDUM FOR CHAIRMAN SEABORG
COMMISSIONER RAMEY
COMMISSIONER JOHNSON
COMMISSIONER LARSON
GENERAL MANAGER

SUBJECT: THE TRIPARTITE GAS CENTRIFUGE PROJECT

I have today received the attached memorandum from State relative to U. K. thoughts on the Tripartite Gas Centrifuge Project.

At an early date I would like to discuss with you where we go with the U. K. relative to advanced research and development and what moves we should take relative to the patent issue.


Theos J. Thompson

Attachment:
Memo of Conversation,
10/24/69, subject as
above

cc: H. C. Brown, Jr.
J. F. Hennessey
M. B. Kratzer
W. B. McCool

DEPARTMENT OF STATE

Memorandum of Conversation

DATE: October 24, 1969

3:00 p.m.

Mr. Lehmann's off.

SUBJECT: The Tripartite Gas Centrifuge Project

PARTICIPANTS: Mr. Clive Rose)
Mr. L. J. Middleton) British Embassy

Mr. Wolfgang J. Lehmann, PM) Department of State
Mr. Charles W. Thomas, SCI)

COPIES TO: AEC - Commissioner Thompson ✓ PM - Mr. Spiers
AEC - Mr. Kratzer SCI (2)
EUR - Mr. Hillenbrand Amembassy LONDON (Mr. Percival)
EUR/RPE - Mr. Katz
EUR/BMI - Mr. Goldstein

Messrs. Rose and Middleton came to the Department at their request to discuss the tripartite gas centrifuge project. Mr. Rose started out by saying that in order to keep us fully informed on the progress of the tripartite centrifuge project we should know that the next meeting of the three partners at the senior officials level is scheduled to be held in Bonn in early November, although no precise date has been set as yet. He said that his government is most optimistic that the outstanding problems will be settled. The British delegation, in his view, will be instructed to be extremely flexible in their discussions with the Dutch. He also said that the British hope to postpone discussions with the Italians and Belgians about their participation in the project until after the tripartite agreement has been signed.

Mr. Rose then said that the British do not plan to reply to our Aide Memoire of October 1, 1969, but have one or two points that they would like to make concerning implementation of the understandings in the exchange. The first of these was to suggest discussions with a small group of American technical people in London on the British program for advanced R&D on the gas centrifuge under the tripartite agreement as soon as possible without waiting for the signing of the tripartite agreement. He said that the

British government is now preparing an outline of their advanced R&D program to be contributed to the tripartite project and will make it available to us as soon as it is ready. The British would then hope that we could review it and then send a small group to London, similar to the group that went there in July 1969, to take up any points on which there might be an Article IX(C) question. He hoped that the visit would be kept secret and that the group would be small (i.e., same size as before) and unobtrusive.

His next point concerned security on the gas centrifuge technology. He emphasized that the UK takes this question just as seriously as the US does and in their tripartite negotiations have gotten the Germans and Dutch to agree to special security procedures on this project. He said that the security arrangements which they have worked out are compatible with NATO/ATOMAL procedures and constitute a considerable tightening of what the Germans and the Dutch had had in mind.

He raised another point concerning a problem on security. Under Article 16 of the Euratom Treaty, the Dutch and Germans are obliged to notify Euratom (and the member countries of Euratom) of all classified patents. As a result the UK must file classified patents in both the Netherlands and Germany which will also be filed with Euratom and the other Euratom countries. He stressed, however, that this would apply only to British inventions and not to the "end cap." He said that these patents would be classified EURA-MOST SECRET by Euratom.

Mr. Lehmann thanked Mr. Rose and Mr. Middleton for this information and said we looked forward to receiving the outline of the UK R&D contribution.

Helen, Eric and Dianne attended the regular INCAP session at Murch School in the morning. Helen has been having some trouble with the INCAP Board of Directors--five of them met one evening earlier this week and voted (4 for, with one abstention) to fire the President of the Board, Sarah Adams, in a highly irregular procedure.

Dianne had her birthday party today with about fifteen girls present including Abbe Kaufman, Ann and Laura Dodd, Amy Ballou, Jessica Nicoll, Patty and Regina Archilla, Sarah Luria, Katherine and Elizabeth McClellan, Priscilla Cobb, Ann Schuchat, and Maria Fauntroy. I took some color movies with my Bell and Howell camera and some black and white with my Soviet movie camera; I also took some color and black and white stills.

Suki and I took a hike in Rock Creek Park, starting at Oregon and Nebraska Avenues on the White Horse Trail to Cross Trail 2, going back on the Black Horse Trail to Cross Trails 3 and 4 and to our starting point.

Priscilla Cobb, Dianne's house guest, and Maria Fauntroy from the southeast section of Washington had dinner with us.

Lynne and Bill arrived about 9:30 p.m., having driven down from Cambridge in their Falcon. They are going to spend about a week with us during which time they will look for employment and a place to live.

Sunday, November 2, 1969

Suki and I took a hike in Rock Creek Park, starting at Oregon and Nebraska Avenues on the White Horse Trail, going north to Beach Drive (the DC line) and back to Cross Trail 2 to the Black Horse Trail, to Cross Trails 3 and 4, returning to our starting point.

I worked on my speech, "The Synthetic Actinides - From Discovery to Manufacture," to be presented to the American Nuclear Society in San Francisco on December 2.

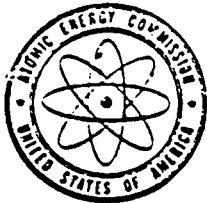
I watched on TV the Washington Redskins - Baltimore Colts football game which the Colts won by a score of 41-17; this was quite a blow to the Redskins' hopes.

We had a birthday dinner for Dianne which was attended by Lynne and Bill and Priscilla Cobb, as well as Eric, Helen and me. After dinner we watched the movies of my European trip and our last summer's vacation.

Monday, November 3, 1969 - Germantown

At 10 a.m. I presided over Information Meeting 958 (notes attached). We approved the use of polygraph examinations at the Livermore Laboratory as a possible aid in locating some unaccounted for documents which describe nuclear weapons design.

Commissioners Ramey, Johnson, Thompson, Larson and I, together with Bob Hollingsworth, John Totter, Gene Fowler and other staff, met with Dr. Theodore Cooper (Director, National Heart Institute) to discuss the cooperative program between NHI and AEC in developing heart devices



UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

UNCL. BY DOE
NOV 86

COPY NO. 3
November 3, 1969

INFORMATION MEETING 958

10:00 a. m., Monday, November 3, 1969, Room A-458, Germantown

1. October 30 Letter from Dave Packard re Nuclear Readiness-to-Test Program

Noted. (AGMMA-OC)

2. Executive Session Items

a. General Manager's October 21 Memorandum re Career Service Awards

Approved. (EAGM)

b. Mr. Riley's October 24 Memorandum re LRL Polygraph Examinations

Approved. The White House and Department of Justice are to be informed. (AGMA-S)

3. AEC 1311/23 - Proposed Response to BOB Request for Analysis of the LMFBR Demonstration Plant Program as a Major Program Issue; and, Proposed Letter to Robert Mayo, BOB, re Fast Breeder Reactor (LMFBR)

Approved with changes. (RDT-OC)

W. B. McCool
Secretary

11:05 a. m.

PRESENT:

COMMISSIONERS:

Chairman Seaborg
Commissioner Ramey
Commissioner Johnson
Commissioner Thompson
Commissioner Larson

STAFF:

Mr. Hollingsworth
Mr. Bloch
Mr. Brown
Mr. Hennessey
Mr. Rubin
Mr. Kull
Mr. McCool
Gen. Giller*
Mr. Hanrahan*
Mr. Abbadessa*
Mr. Shaw*
Mr. Vinciguerra*
Mr. Riley*

DISTRIBUTION:

Commissioners
General Manager
General Counsel
Secretary

*Attendance by Topic (s)

powered by implantable radioisotopic power sources. We agreed that we would develop an agreement for cooperation which would spell out the responsibilities between our two agencies. The AEC will be responsible for the isotopic heat source and the NHI for the heart pump; the development of the engine and the power transmission system is more difficult to allocate between the two agencies. Cooper said that the total budget of the NHI is some \$7.8 million of which about \$1.7 million might be devoted to heart assist devices.

I attended, along with Commissioner Larson, Julie Rubin, Justin Bloom, Bob Hollingsworth and other staff, a briefing by Charles Ziegler (President of Panametrics, a subsidiary of Esterline Corporation), on portable radioisotope fluorescent instruments used in the area of rapid analysis of such commercial products as ores, alloys, pigments, powders, coatings, solutions, etc. The device which they market--radioisotope excited x-ray fluorescent analyzer (REXA)--uses such isotopes as Am-241, Pb-210, Fe-55, etc.

I had lunch in the cafeteria with John Harris, Ed Stokley, Joe Fouchard, Stan Schneider and Julie Rubin to discuss the status of our affairs in public information and especially our present program of public understanding in the area of environmental problems.

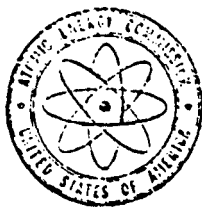
At 2:30 p.m. I presided over Information Meeting 959 (notes attached). We approved the public release of a report on the Rocky Flats fire after going over the wording of the report; we also approved holding a press conference in Denver on this subject and the participation of General Giller in a filmed interview by Tom Pettit of NBC for use on the First Tuesday TV show. We did not approve a tour of the Rocky Flats facility or taking pictures there. We approved a revised plan for the Plowshare excavation program in which we would brief the Under Secretaries Committee on the reasons for an excavation program, continue to work with the Under Secretaries Committee for an interpretation of the Limited Test Ban Treaty, at the present time request permission to fire STURTEVANT as an excavation shot, add an underground development shot aimed toward the production of a cleaner explosive, and postpone YAWL until FY 1971. We also discussed means of increasing assistance to predominantly Negro colleges, in response to Robert J. Brown's (Special Assistant to the President) letter of October 17 (copy attached).

At 4:15 p.m. I presided over Commission Meeting 2396 (action summary attached). We discussed the problem of lifting restriction on the domestic use of foreign uranium enriched in our facilities and the disposal of our excess uranium inventory. We decided to explore with the State Department and the Bureau of the Budget a plan in which we would allow a 20 percent ratio of foreign uranium beginning on June 30, 1973, and a commitment not to dispose of our surplus uranium before 1975, and then only in a small proportion of the total domestic requirement per year. We also discussed the matter of the Commission's position on the finding of practical value and decided not to take this step at this time.

I received letters from James B. Conant and Governor Nelson Rockefeller thanking me for their copies of Atomic Shield, 1947-1952 (copies attached).

I received a letter (copy attached) from Budget Director Mayo, outlining procedures for agency budget appeals.

UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545



COPY NO. 3
November 3, 1969

INFORMATION MEETING 959

2:35 p. m. , Monday, November 3, 1969, Room A-458, Germantown

1. Commissioner Ramey's Oral Report on his Luncheon Meeting Today with Department of Interior Assistant Secretary for Water Quality and Research Klein re Department of Interior Testimony at the JCAE Hearings on Environmental Effects of Nuclear Power Plants and Other Sources of Electric Energy
2. Chairman's Telecon Saturday, November 1 with Mr. Peter Flanigan, White House, re Licensing of Nuclear Reactors Under Parts 20 and 50 - Standards for Protection Against Radiation Licensing of Production and Utilization Facilities
3. Staff Report on Department of Defense Withdrawal of Support re AEC Construction Projects
4. AEC 344/103 - Rocky Flats Fire: Report for Public Release and Proposed Briefings

Approved with changes. The JCAE is to be informed. (AGMO)

5. AEC 344/104 - Proposed NBC News Interview on Rocky Flats Fire

Approved with requests. (PI-AGMMA)

6. AEC 344/101 - Distribution of Classified Report on Rocky Flats Fire

Approved with additions. (AGMO)

7. AEC 1309/20 - Execution Data for a Portion of the Mandrel II Events
Approved. (AGMMA)
8. Briefing on Milrow, Friday, November 7, 1969
To be scheduled. (AGMMA-SECY)
9. AEC 267/106 - White House Request for Increased Agency Assistance to Predominately Negro Colleges
Staff may proceed. (AGMO)
10. AEC 811/277 - Project Sturtevant; and, AEC 1180/22 - Report on the Canal Study Commission Meeting on October 23, 1969
The General Manager's recommendation is approved. (PNE)
11. AEC 534/76 - Meeting with Representative Holifield re Dow Safety Committee
Noted. (LABR)
12. AEC 1322 - State Department Request (NSSM-72)
Noted. (SNS)
13. Pending Contractual Matters Report No. 332
Noted. (PAR)
14. AEC 858/30 - Proposed Exemption from Certain Conflict of Interest Restrictions
Noted. (R)
15. Topics for Commissioners' Meeting with the General Advisory Committee, November 10, 1969
Noted. (SECY-EAGM)

W. B. McCool
Secretary

PRESENT:

COMMISSIONERS:

Chairman Seaborg
Commissioner Ramey
Commissioner Johnson
Commissioner Thompson
Commissioner Larson

STAFF:

Mr. Hollingsworth
Mr. Bloch
Mr. Hennessey
Mr. Abbadessa
Mr. Rubin
Mr. Kull
Mr. McCool
Gen. Giller*
Mr. Erlewine*
Mr. Harris*
Mr. Oakley*

DISTRIBUTION:

Commissioners
General Manager
General Counsel
Secretary

*Attendance by Topic (s)

THE WHITE HOUSE
WASHINGTON

October 17, 1969

D ar Mr. Seaborg:

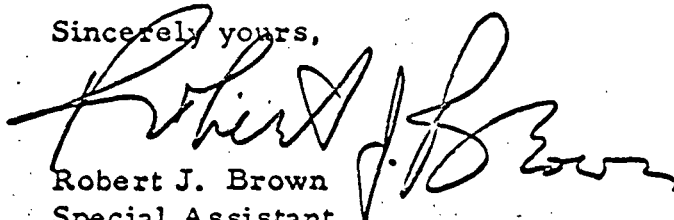
This Administration is aware of the plight of the long neglected Negro colleges and believes that they are entitled to increased public and private support.

At the request of the Administration, the Federal Interagency Committee on Education has initiated steps within the Government to achieve a coordinated plan of Federal assistance for these schools. To further this effort, the President has instructed me to convene a group of officials of all Departments and Agencies which have resources or programs related to this purpose.

Mr. John Erlewine of your Agency has been invited to a meeting on October 23, 1969, in the Executive Office Building. The meeting will review past and present agency support for Negro colleges and consider ways to increase Federal assistance. Mr. Erlewine will, of course, report and consult with you regarding this meeting and its purpose.

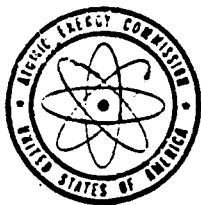
With the Federal Government providing the leadership, we may be able to mobilize the public and private resources required to assist these colleges. They are more vital for educating disadvantaged youth today than ever before. The President requests your affirmative support in this matter.

Sincerely yours,



Robert J. Brown
Special Assistant
to the President

Honorable Glenn T. Seaborg
Chairman
Atomic Energy Commission
Washington, D.C.



EXCL. BY DOE
NOV 66

UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

November 4, 1969

Approved _____

REH

Date _____

R. E. Hollingsworth, General Manager

ACTION SUMMARY OF MEETING 2396, MONDAY, NOVEMBER 3, 1969, 4:15 P.M.,
ROOM A-410, GERMANTOWN, MARYLAND

SECY:LGH

Commission Business

1. AEC 1311/25 - FY 1971 Budget Amendment

Approved. (AGMA/OC)

2. Minutes of Meetings 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392 and 2393

Approved, as revised. (SECY)

3. Executive Session

AEC 132/154 - Organizational Functions

Approved, in principle, subject to discussions with the JCAE. (GM)

4. AEC 1193/8 - Demonstrations - November 13-15, 1969

The Commission requested flexibility in dealing with actual or potential demonstrations. (AGMA)

5. AEC 359/85 - AEC Excess Uranium Inventory (See also

AEC 695/51 - Report on Depleted Uranium)

AEC 720/209 - Lifting of Restrictions on Enrichment of Foreign Uranium Inventory - (See also

AEC 720/206 - Lifting of Restrictions on Enrichment of Foreign Uranium)

Staff will discuss with State, BOB, and the White House, and later with JCAE, a proposed arrangement as modified by: 1) reducing from 30 percent to 20 percent, the specified permissible proportion of foreign uranium to newly contracted domestic uranium; 2) advancing the date for first accepting foreign uranium from January 1, 1974 to July 1, 1973; and 3) stating in the text that disposal of surplus stocks would begin no earlier than 1975, with the actual date to be dependent upon later assessments of the supply-demand situation and of the impact of foreign imports on the domestic industry. Quantitative limits on the rate of disposal would be retained as proposed in AEC 720/209. (RM)

R. E. Hollingsworth
Action Summary 2396

November 4, 1969

6. AEC 1143/89 - Extension of Contract for Managing and Operating the Centralized Computer Service at Richland, Washington

Approved. (DC)

7. AEC 152/247 - Review of Commission's Position on a Finding of Practical Value

Discussed.

Commissioner Ramey requested staff submit the proposed testimony for the JCAE Hearings on Practical Value Legislation on November 18-20 to the Commission for review. (GC)

Original signed
W. B. McCool

W. B. McCool
Secretary

cc:
Chairman Seaborg
Commissioner Ramey
Commissioner Johnson
Commissioner Thompson
Commissioner Larson

A STUDY OF AMERICAN EDUCATION
c/o TIAA, 730 Third Avenue, New York, N. Y. 10017

JAMES B. CONANT

212-697-8423

November 3, 1969

Dr. Glenn Seaborg; Chairman
U. S. Atomic Energy Commission
Washington, D. C. 20545

Dear Glenn:

On returning to New York from Hanover, New Hampshire, where we spent half the year, I found a copy of "Atomic Shield, 1947-52" and your letter. I am delighted to have this volume and I am looking forward with eagerness to the opportunity of reading this second volume of the history of the Atomic Energy Commission.

May I take this occasion to congratulate you, not only on the publication of this book, but on your continued highly successful management of the affairs of the Commission. You have been performing a great service for the United States, and all the citizens of this country are indebted to you for what you are doing.

With all good wishes,

Sincerely,



James B. Conant

JBC:ej



STATE OF NEW YORK
EXECUTIVE CHAMBER
ALBANY 12224

NELSON A. ROCKEFELLER
GOVERNOR

October 29, 1969

Dear Glenn:

Thank you very much for your thoughtfulness in sending me a copy of Atomic Shield, 1947-1952, the second volume of A History of the United States Atomic Energy Commission. I look forward to reading it.

With warm regard,

Sincerely,

Dr. Glenn T. Seaborg
Chairman
United States Atomic
Energy Commission
Washington, D. C. 20545

EXECUTIVE OFFICE OF THE PRESIDENT
BUREAU OF THE BUDGET
WASHINGTON, D.C. 20503

OCT 30 1969

MEMORANDUM FOR HONORABLE GLENN T. SEABORG
CHAIRMAN, ATOMIC ENERGY COMMISSION

Subject: 1971 budget appeal procedures

As you are well aware, the 1971 budget season is now in full swing, and we shall have to work painstakingly to insure effective results within the limited time available. In collaboration with the White House we have been firming up the review and decisionmaking processes to be employed. Among the points examined and approved by the President are the procedures for handling appeals from 1971 allowances.

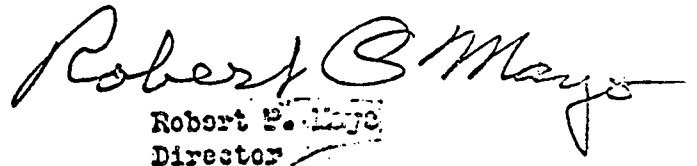
The allowance that you receive during the budget season will have been determined after intensive review of your budget submission in relation to the President's government-wide responsibilities. It will reflect the President's decisions after considering the urgent need for stringent allocation of resources in an extremely difficult fiscal and economic situation. In this light, we are hopeful that appeals from those allowances can be kept to a minimum; none other than major issues should be brought to the President.

The President has determined that agency appeals will adhere to the following procedures:

1. When Bureau of the Budget review of your budget submission has been completed, my planned recommendation to the President is communicated to your agency by Bureau staff. If, despite the need for budget stringency, you are unable to agree with the allowance, your needs for adjustment in those areas you consider critical will be carefully considered.
2. My recommendation to the President on the 1971 allowance for your agency will highlight for his attention any disagreement you may have with that determination. The Bureau of the Budget will communicate to your staff the President's decision on your 1971 allowance.

3. If you wish at that point to present to the President your appeal from the tentative 1971 allowance figure, a short memorandum should be submitted to the President outlining your arguments in favor of additional funds.
4. As soon as practicable (considering the President's schedule) the President expects to meet with you on your memorandum. John Ehrlichman and I will attend all such meetings. ~~Henry Kissinger will participate~~ in those meetings related to his area of responsibility.
5. The President expects to reserve judgment on such appeals until he has heard all appeals from other agency heads. The President has indicated he wishes to consider all appeals submitted to him in the aggregate before making his final decision in each specific case.

These procedures will be observed uniformly. Any agency appeal will, of course, be given a most careful review. However, in light of a most stringent budget situation, I think we must all recognize that relief from the President's initial determinations cannot be granted except for a few exceptional cases.


Robert P. Mayo
Director

I received a memorandum from the President (copy attached) on the importance that the security of our plans be maintained and that all in Government speak with one voice as we enter the SALT talks.

I sent a letter (copy attached) to General Lewis B. Hershey (Director of Selective Service) in response to his request for my thoughts or recommendations on the review of Selective Service Guidelines, standards and procedures for exemptions as requested by the President; I advise against the indiscriminate drafting of graduate students.

David Packard called me at home (returning my call to him this afternoon). I told him I wanted to discuss his impending action which would, if carried out, cut the AEC level of exemption from the construction reduction plan proposed for the FY 1970 budget. On the basis of national security, he had written to the President and to the Director, Bureau of the Budget, on October 25, requesting a total exemption of \$41 million, that is, the part of our construction budget related to the Safeguard, Minuteman III and Poseidon program would not be subject to the President's directive requiring us to defer three-quarters of our construction projects during FY 1970. I said we had learned that DOD is considering reducing this exemption to \$24 million and pointed out that the difference of \$16 million is required in order to meet our Initial Operating Capabilities (IOC's) dates for these weapons; if we didn't have the entire \$41 million, we wouldn't be able to meet these IOC's. Packard said that he had been requested to make this reduction in the exemption by the Bureau of the Budget and that I should discuss my problem with them. I said I would do this but asked that, in the meantime, he defer any letter that would suggest reducing our exemption until I had conferred with BOB; he agreed to do this.

Lynne and Bill had dinner with us. They had looked for an apartment today.

At 9:30 p.m. I saw President Nixon giving a speech on TV, in which he expressed his views on Vietnam. He indicated no particular change in policy and called on the large, silent majority of Americans to support him.

Tuesday, November 4, 1969 - D.C.

I received a call from Arthur Hartman (of Elliot Richardson's office) who said that Richardson called him before leaving for Europe (for about 10 days) and said he has wanted to call me for the past several days because he was thinking of the conversation we had on October 14 on Plowshare, but time ran out and he therefore asked Hartman to get in touch with me. In our conversation on October 14 I suggested that we give special consideration to the public acceptance problem for the detonation of the STURTEVANT device, and he suggested now that this be studied by a 2-man team, with Wolf Lehmann representing State and someone whom I might designate to represent AEC. He also said that he wanted to give me the opportunity to check the draft of the minutes of the October 14 meeting of the NSC Under Secretaries Committee, which he would send over immediately by hand.

After receiving the minutes, I called Hartman and made some suggestions, which he accepted. Also, I said I would like to designate Julius Rubin

THE WHITE HOUSE
WASHINGTON

October 31, 1969

MEMORANDUM FOR

THE SECRETARY OF STATE
THE SECRETARY OF DEFENSE
THE DIRECTOR, CENTRAL INTELLIGENCE AGENCY
THE CHAIRMAN, JOINT CHIEFS OF STAFF
THE DIRECTOR, ARMS CONTROL AND DISARMAMENT
AGENCY
THE DIRECTOR, UNITED STATES INFORMATION AGENCY
→ THE CHAIRMAN, ATOMIC ENERGY COMMISSION

SUBJECT: Avoidance of Leaks on SALT

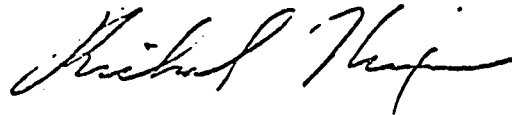
As we enter SALT, it is of first importance that the security of our plans be maintained and that all in the Government speak with one voice.

The basic procedure for ensuring this was established in my directive of September 12, 1969, issued at Colorado Springs. The operative parts of this directive follow:

- "1. Public Statements and Press Releases: Prior to release, all public communications on matters of known or potential Presidential interest must be carefully cleared by the White House (Assistant to the President for National Security) for consistency with Presidential policy and for coordination with the departments and agencies who share overlapping interests and responsibilities. Should there be any uncertainty as to Presidential or inter-departmental interest, it will be resolved in favor of clearance.
- "2. Official communications: All official communications with policy implications must be cleared by the White House. When in doubt, the rule is that messages will be so cleared. This procedure requires close and confidential staff relationships at all levels between the White House and your department as well as among departments."

In addition, for routine and purely operational matters relating to SALT, public and background statements and guidance for such statements, should be dealt with by the backstopping machinery which was established at my direction in Henry Kissinger's memorandum to the Under Secretary of State on September 6, 1969.

Leaks about SALT planning and divergent statements to the public, Congress or foreign governments can clearly endanger the national interest and security. Special precautions should therefore be taken to avoid unauthorized disclosures or renditions of the Administration's views that have not been approved by the procedures referred to above.

A handwritten signature in cursive script, appearing to read "Richard Helms".

November 3, 1969

General Lewis B. Hershey
The Director of Selective Service
National Headquarters
1724 F Street, N.W.
Washington, D. C. 20435

Dear General Hershey:

Your invitation of August 5 to express my thoughts and recommendations regarding Selective Service guidelines, standards, and procedures for exemption is much appreciated. As you know, the problem of assuring properly qualified scientific manpower to meet the nation's needs has long been a matter of major concern to me. The same concern has also been expressed by others, including recently the Scientific Manpower Commission, the Engineering Manpower Commission, and other similar groups. Their view is that unless some corrective action is taken almost immediately, "there is every indication that current draft policies will seriously and detrimentally affect the nation's future supply of highly trained personnel in a number of disciplines vitally important to the future well-being of the nation."

Considering that statements such as this come from groups that are close to the problem and who have appropriate statistics at hand, I must give them a measure of credence. My own more limited contacts with the university and scientific communities also reveal a great sense of uneasiness about the impact of current draft policies, or perhaps more specifically about the lack of policies for assuring that a pool of scientific and engineering manpower in the form of deferred graduate students is being maintained to meet the future pressing needs of this country. The same argument can probably be made by others for protecting manpower resources in other critical disciplines, and one major problem that we appear unwilling to face squarely is the allocation of these resources by some system of relative priorities.

My personal opinion is that a young man may serve his country well in ways other than undergoing a period of service in the Armed Forces, and particularly so if the military is unable to use his inherent or acquired skills. Our present sophisticated defense posture could not have been achieved without the talents of an "army" of young civilian scientists and engineers, who contributed many of the technical ideas and brought them to fruition while employed by defense contractors. To deplete the reserve for this "army" by indiscriminate drafting of graduate students may help to solve short-term problems of maintaining the Armed Forces at desired levels, but may also in the long term, be disastrous in several respects. The universities cannot hope to staff and plan graduate activities when the uncertainties of their future enrollments are so great; the present policy could lead to a turning away from advanced degrees by students with bachelors' degrees; and the generally acknowledged need for more and better trained professionals in a society that is becoming ever more complex will not have been met.

Not all of this is hypothetical. Figures available from the Scientific Manpower Commission show that in the 1,200 Ph.D.-granting science departments of universities who responded to a survey, 46% of the first and second year graduate men who were U.S. nationals were draft-liable in the fall of 1968. Another survey of Ph.D.-granting chemistry departments this past spring indicated that some departments had lost more than half of their first and second year male students to military service by June and that the national average was 16% of the chemistry students.

What alternatives or recourse are there to this deleterious impact of Selective Service? First, I am a proponent of the proposal that uniform standards be established in the granting of deferrals by local draft boards, and that these standards include a system of relative priorities for skills and potential skills identified for all aspects of the nation's needs and objectives. I am not suggesting special or unusual treatment of scientists and engineers in this regard. Second, I would superimpose upon the priority system a method of random selection of those eligible for the draft to remove all semblances of discrimination as applied to individuals by local boards. Third, as one alternative, I see merit in the suggestion advanced a few months ago by President Nixon that the time of exposure to the draft of an individual

General Lewis B. Hershey

- 3 -

young man be shortened to one year. This relatively simple and equitable step would encourage sound career planning and not discourage the advanced education so important to the well-being of this country. Last, as another alternative, I believe that consideration could be given to modification of the existing policy of drafting graduate students, giving them basic training in one of the services, and returning them to school subject to recall in the event of a national emergency. The recall period in this case would exist for the period of time which they would otherwise have served on active duty. When this period expired, their military obligation would be considered to have been discharged.

These ideas collectively may or may not be new, but I offer them as an expression of my interest and concern in the hope that they will be useful to you in your most difficult undertaking.

Sincerely,

(Signed) Glenn T. Seaborg

Glenn T. Seaborg

bcc: Mr. Rubin

JLB/jen

to be the AEC member of the 2-man team to work on the special problem of defining the matter of public acceptance. We agreed that this 2-man team might then present its findings to Richardson and me, and we might then have a session with the President which would determine whether the problem of public acceptance is sufficiently manageable so that it would be worthwhile to go ahead and have the Under Secretaries Committee try to resolve the problem posed by excavation shots in relation to the Limited Test Ban Treaty.

I called Jim Schlesinger (Bureau of the Budget) about the matter of deferring 3/4 of our construction under the FY 1970 freeze and that part which might be exempt. (Total AEC construction is \$125 million; under the 3/4 freeze, we would have to defer \$94 million, and would be able to go ahead only with the remainder of \$31 million. If we don't get the exemption of \$41 million, which BOB wants to cut to \$24 million, we will have an additional \$14 or \$16 million that we will not be able to spend and which would cut down on the \$31 million.) I said I have talked to Dave Packard and he suggested that I call BOB. Packard has written, requesting exemption of \$41 million of AEC construction funds which has to do with Safeguard, Poseidon, Minuteman, etc.

Schlesinger said that when they wrote the "bulletin" they had in mind our problems at Rocky Flats; so they wrote in a special exemption for just that facility; they had not anticipated our part of the Safeguard problem. Safeguard was very much in their minds when they worked out the DOD portion. Also, they indicated to DOD at that time that most of these matters have become quite sensitive in Congress and they would appreciate not receiving any requests under that exemption until as late a date as possible, after January 1. He said BOB's attitude is to be as generous as possible toward AEC, recognizing, of course, that invidious comparisons would be made by other agencies--HUD, HEW, etc., who would be restricted to 25%. They have been inclined to see if they could hold down the total exceptions that the AEC receives so that these comparisons could not be legitimately made by Congress who is on the alert and ready to pounce on this.

He said that Rickover's reactor core work struck BOB as particularly vulnerable because it is dramatic and very hard to see that it is required for national security. I pointed out that we would practically have to cancel the 200 Bev Accelerator, AGS conversion, FFTF, etc., because after taking care of the absolute defense requirements, we would have nothing left for the civilian items. I suggested that we come over to BOB and talk to them about this. He said he would call me back about a time. (An appointment was made for tomorrow at 9 a.m.)

At 10 a.m. I was interviewed by Jerry Hannifin of Time magazine regarding my European trip. Stan Schneider and Truman Temple (DPI) were also present. Mr. Hannifin has been to the U.S.S.R. and wanted my reactions to their scientific and technical progress. I reviewed for him the places I visited, with whom I met, and what I saw in each country. Following that we discussed the general level of scientific and technological progress in the U.S.S.R. and the Eastern European countries. Finally, I reviewed in some detail the criteria for controlled fusion, what the Soviets have accomplished recently toward achieving fusion, and the steps we are taking to move ahead in this program.

Senator Hickenlooper called me to express his appreciation for our having sent him a copy of the book, Atomic Shield. He said he thinks the historians relied too much on Lilienthal's ex post facto diary but, in the main, he feels the book is a splendid work. He said that some of the reminiscences that he has in his file would startle the historians a little. He said he enjoyed reading the book.

Julie Rubin and I had lunch at the White House Mess. I introduced him to Bryce Harlow and Dan Moynihan.

At 2:30 p.m. I met with Arnold Kramish, Vice President of the Institute for the Future. Julie Rubin was also present. Kramish stated he was not trying to sell anything during this visit and merely wanted to discuss some of his ideas about the environmental problem. He noted his principal activity these days is as the Washington Representative for the Institute with headquarters in Connecticut. This organization was described as being similar to Rand or Temp and other think tanks but with completely non-military objectives. The main idea is to use war game techniques to treat social problems such as student unrest and others facing the country today. About 80 percent of their support at the present time is non-government. With regard to the environmental question, Kramish expressed a view that there is need for a major technological assessment effort. He referred to a National Academy of Sciences document by Creutz entitled, "Trace Element Contamination of Environment" as an example of what is needed. I inquired if he has talked to DuBridge about this and he indicated this has been partially accomplished through conversations with some of DuBridge's staff. Kramish also expressed the view that there is need to focus attention on this and other matters in a few politically viable organizations rather than the many groups seeking to solve the major problems such as environment facing the world today.

John Bell of the White House called regarding John D. Anderson, presently an assistant to the Chairman of the New York State Atomic Development Authority, formerly manager of the Schenectady Operations Office, who is interested in making a change. Bell recommended him as a good man and a good Republican. He said that since Anderson's entire career has been in the nuclear management area, he might be an ideal candidate for Curt Nelson's job. He said he would send over Anderson's resume and asked me to see what I could do. I agreed.

I received from J. F. Doherty (Chairman of the Inter-Departmental Committee on Internal Security) a copy of the report dated July 30, 1969, entitled "Reappraisal of U.S. Defenses Against Clandestine Introduction of Nuclear Weapons."

I called the following officials of the University of California to tell them that, through my three boys who are at the University, a number of students have asked with apprehension about the possibility of the university's imposing tuition. President Charles Hitch feels there is very little chance of forestalling this move. The Governor has been promoting it, and there is also strong legislative sentiment in favor of tuition. He said his hope would be to settle for a modest conventional type of tuition (\$200-\$250), rather than something such as that envisaged in the Collier Bill which would impose tuition of at least \$1,000 on undergraduates and \$2,000 on graduates; this could be taken as a loan and

would not start bearing interest until after graduation. He said that the bill was barely defeated in the Senate. He had no objection to my calling some of the regents; in fact, he urged me to do so. He, himself, cannot go against tuition because that would sacrifice any opportunity he might have of influencing the form it takes. I mentioned that I will be in Berkeley on November 20 at the time of the Regents' meeting, and I might see some of the regents then. I said I know I would not have been able to attend the University if I had had to pay tuition; Hitch said that's a quote he might be able to use and which just might help.

Berkeley Chancellor Roger Heyns said he hasn't gone into this; in fact, he will be seeing Bob Connick in a few minutes for a briefing. He was in favor of my calling Regents Canaday, Pauley and Carter.

Regent Edward W. Carter said he is opposed to tuition; if it were imposed, however, he would strongly favor earmarking funds for hardship cases. That is also pretty much the sentiment of the board. However, the tuition would not be imposed very soon, but ultimately. He sees no indication that the Governor will force it this year. I said that if a tuition of, say, \$200 were imposed on 100,000 students, that would realize only \$20 million. He said \$20 million is a lot of money these days. The University is practically out of business on capital improvements because of inability to raise funds. He said that if they need external testimony, mine would carry a lot of weight. He suggested I talk with President Hitch; I said I did talk to him of my concern, but I may call him again.

Regent Edwin W. Pauley said he still opposes tuition; if it does come about, however, there would be quite a generous fund available toward scholarships. The question is whether the money would have to be paid back--over a period of years. His optimism is weakening because Governor Reagan has appointed new regents who will support him. Also, the conduct of the students and the faculty, and the UCLA Communist professor problem, none of these are conducive to encouraging the regents to be protective of the students. But, tuition, he feels, is a long way from passing. I said I also talked to Ed Carter; Pauley said, "I don't think he's quite as strong on it as I am." I mentioned I will be in Berkeley November 20. He said it's a serious matter when you can't hold a regents meeting on your main campus. Armed guards are required for every meeting at Berkeley. He mentioned that at one meeting the regents were held captives for 1-1/2 hours; he left his car there and had to wait until the riot squad came to break up the situation. One pattern that he has seen is that the disruption comes from the minority element that has been admitted under special waivers and dispensations, even where poor grades were concerned. Pauley asked whether I have seen Secretary Robert Finch, and then he mentioned that his son, Robert Pauley, is an assistant to Finch, working on the pesticide problem.

I received a letter from Governor Ronald Reagan thanking me for his copy of Atomic Shield (copy attached).

I sent my biweekly report to the White House today (copy attached).

I sent a letter to Budget Director Mayo regarding a number of considerations pertinent to the development of the LMFBR (copy attached). This is in reply to Mayo's October 1 letter (copy attached)



State of California

GOVERNOR'S OFFICE
SACRAMENTO 95814

RONALD REAGAN
GOVERNOR

October 30, 1969

The Honorable Glenn T. Seaborg
Chairman, United States
Atomic Energy Commission
Washington, D.C. 20545

Dear Mr. Seaborg:

Thanks so much for sending me a copy of Atomic Shield, 1947-1952. I am most appreciative of your thoughtfulness and am looking forward to getting into it soon.

Again, my thanks and best regards.

Sincerely,

A handwritten signature in cursive script that reads "Ronald Reagan".

RONALD REAGAN
Governor

AEC BIWEEKLY STATUS REPORT FOR NOVEMBER 4, 1969

1. Chairman Seaborg and Commissioners Ramey, Thompson, and Larsen testified on October 29, 30, and 31 at hearings of the Joint Committee on Atomic Energy about the environmental effects of producing electric power. Dr. DuBridge and Chairman Nassikas (Federal Power Commission) were witnesses at the opening session on October 28 and 29. Other Federal witnesses are scheduled for November 4-6. Additional sessions for witnesses from state governments, industry, and the general public are expected to be scheduled later.
2. Two California groups recently advocated a moratorium on new fossil-fueled electrical generating plants. The California Environmental Quality Study Council adopted a resolution against constructing such plants in Los Angeles and surrounding counties. The Council said it would ask the State Attorney General to seek court action for the moratorium if utilities do not comply voluntarily. The Orange County Board of Supervisors passed a resolution recommending that the State Public Utilities Commission order a moratorium against additional fossil generating facilities in California. These resolutions were passed after both groups had held public hearings involving Southern California Edison's proposal to expand its oil and gas fired fossil plant at Huntington Beach.
3. The 1969 winner of the Nobel Prize for Physics, Professor Murray Gell-Mann of the California Institute of Technology, was awarded the honor for outstanding work in elementary particle physics that is being funded by the AEC. Last year the same prize was awarded to another scientist performing high energy physics research under AEC auspices, Professor Luis Alvarez of the Lawrence Radiation Laboratory at Berkeley, California.
4. The Joint Committee on Atomic Energy has scheduled public hearings on November 18-20 on several bills proposing changes in the Atomic Energy Act concerning competitive and environmental considerations in the pre-licensing review of nuclear power plants. A common purpose of three of the bills would be to eliminate the present requirement for a finding of "practical value" before a nuclear power plant may be licensed as a "commercial" facility.

A pre-licensing review by AEC would be provided to determine, with the advice of the Attorney General, whether issuance of the proposed license would tend to create or maintain a situation inconsistent with the anti-trust laws. One of the bills would confer on AEC the authority to control the thermal effects of liquid effluents from licensed nuclear power plants. Another bill would authorize AEC to include environmental protection standards in certain of its licenses. Representatives of various Federal agencies are expected to testify on these dates, and additional hearings will probably be scheduled later.

5. The world's largest liquid hydrogen bubble chamber, for high energy physics research at AEC's Argonne National Laboratory, was operated successfully for the first time during October. It is expected to be ready for the beginning of experiments in December.
6. Two major advances in controlled thermonuclear fusion research have been announced and discussed in scientific circles. The Soviet Union has established clear dominance in this field by confining a plasma magnetically at higher temperatures and densities and for longer times than has been achieved before. The results were confirmed by a team of British scientists working in the Soviet Union, and indicate that a future device capable of sustaining a controlled thermonuclear reaction is technically feasible on a laboratory scale, and could conceivably be expanded to a full scale reactor. The United States disclosed that another type of magnetic device at Gulf General Atomic had contained a dilute, low temperature plasma for times longer than required in a fusion reactor, but the device is not capable of being scaled up to full size.
7. The work force employed by the AEC contractor, Idaho Nuclear Corporation, at the National Reactor Testing Station (in Idaho Falls, Idaho) will be reduced by approximately 130 people in November because of 1970 budgetary reductions and shifts in emphasis from research to engineering and testing.
8. The most comprehensive and authoritative conference yet to be held on the synthetic transuranium elements

is scheduled for November 17-19 in Houston, Texas. Over 600 scientists, including experts from around the world, will be in attendance. The Conference is sponsored by the Robert A. Welch Foundation, and Dr. Seaborg will act as the Chairman.

9. France may abandon its effort to develop French-designed, natural uranium nuclear-power reactors in favor of American light-water reactors, according to a recent speech by the French Director General of Electricity. He said the French-designed stations had been a success technically but not economically and that it was time to select a proven reactor type so that French industry could get into the reactor export market.
10. To promote prospecting and mining of radioactive materials in Angola and Mozambique, the Portuguese Nuclear Energy Board is organizing a quasi-public corporation to enter into agreements with foreign companies. The Board is interested in holding discussions with 12 U.S. companies to explore the possibilities of such agreements.
11. A task force from Euratom (the European Atomic Energy Community) plans to visit AEC Headquarters on November 24-26 to discuss the long range potential of nuclear energy in electric power production and matters related to it, such as planning, costs, and materials.



UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D. C. 20545

NOV 4 1969

Honorable Robert P. Mayo
Director, Bureau of the Budget
Executive Office Building
Washington, D. C. 20503

Dear Mr. Mayo:

Thank you for your letter of October 1, 1969 regarding a number of considerations pertinent to the development of the Liquid Metal-cooled Fast Breeder Reactor (LMFBR). We were acutely aware of the need for approaching the preparation of the FY 1971 budget with full realization of the stringent limitations that had to be applied to provide for the many important national requirements. In fact, consideration of the intense competition for funds has been a restraint on the budgetary estimates for the Civilian Power Reactor Program for several years and was an important factor in initiating the difficult selection process that resulted in the identification of the LMFBR Program as the Commission's highest priority civilian power project.

Furthermore, the Commission is in full agreement with your suggestion that industrial participation in funding the development of the LMFBR and other promising concepts be accelerated, and we have been working diligently on this matter. In this regard, the Commission and the manufacturing and utility industries have developed, through experience gained over the years in bringing the Light Water Reactors (LWR's) into a commercially viable state, an improved understanding of the full implications of accomplishing the first two specific objectives of the nuclear power program as stated in the "1962 Report to the President on Civilian Nuclear Power."

1. The demonstration of economic nuclear power by assuring the construction of plants incorporating the presently most competitive reactor types;
2. The early establishment of a self-sufficient and growing nuclear power industry that will assume an increasing share of the development costs."

These two objectives are intimately related. It is evident that a "self-sufficient" nuclear power industry is essential to the "demonstration of economic nuclear power." The exploitation of atomic energy necessary to achieve the promised return on the investment of industrial and government resources cannot be achieved solely by

developing a nuclear power system and conducting an operational demonstration. A viable industrial capability is also essential to participate in the early development and demonstration phases and to assure the continued technical and economical performance necessary to the recovery of the developmental investments.

As noted in your letter, the development of improved civilian power reactors is essentially a commercial and industrial enterprise. This consideration is emphasized in the fact that although the AEC has spent some two billion dollars, the U. S. industry since 1965 has already made commitments on the order of about \$15 billion for civilian nuclear power plants now operating, under construction, or on order incorporating light water reactors. In addition, the industrial commitment over the 30-year life of these plants will approach another \$35 billion for fuel and other operating costs.

While part of this unprecedented commitment is directed toward completing the development effort and improving the economics, most is basically an investment in establishing, through purchases of nuclear power plants, the self sustaining industrial capability required to assure that the LWR's can fulfill their promise as a major source of economic and reliable electric energy. In so doing, the nuclear community acknowledges that significant losses, well over a half a billion dollars, have been sustained by the principal reactor manufacturers and utilities on the LWR's thus far committed. However, this has not deterred industrial planning for additional converter type reactor plants amounting to well over \$50 billion, exclusive of fuel, between now and the year 2000, while moving into the breeder economy. We believe that these investments and projections place in proper perspective the extent of the commitments and their implications regarding the risks and financial burdens being assumed by the industry to support the development of improved nuclear power reactors.

Concurrently with the acceptance on the part of the U. S. utility and manufacturing industry to shoulder the burden of establishing the viability of the LWR, the support of the Federal Government has been decreasing and will continue to do so. Except for phaseout costs involving demonstration projects, Commission support of the LWR development is now essentially limited to activities related to fuel utilization, reactor plant safety and related facilities, environmental effects, and the maintenance of an in-house capability necessary for the safe and economic operation of Commission-owned test reactors. The nuclear industry also supports substantial development efforts in most of these areas and is increasing their efforts, particularly in safety related programs.

In examining the status of development of civilian nuclear power, it is necessary that all industrial and government expenditures for research and development be considered in context. The development of improved LWR's is now clearly in the commercial phase with significant continued development efforts being financed by the utility industry concurrently with the purchase of large numbers of plants characterized by major technological and engineering extrapolations yet to be demonstrated as proven. The High Temperature Gas Reactor (HTGR) has also progressed in the developmental cycle to the point where an industrial vendor is prepared to support significant additional development efforts and market a 1000 MWe power plant with only limited government assistance. As you are aware, government support of the HTGR concept has been drastically decreased and is now primarily concentrated on assuring the success of the 330 MWe Fort St. Vrain power demonstration.

The more advanced breeder reactor systems, including the LMFBR, are currently in the predominantly government-support stage of development. Industrial participation in the LMFBR project prior to demonstration plant commitments would not normally include heavy financial commitments of the nature now being invested in the LWR. However, in the case of the LMFBR, the widespread nature of industrial interest and support is unprecedented and most encouraging.

This industrial participation provides firm evidence of industrial intent to make those long term and large scale investments to see the LMFBR Program to a successful conclusion. Within the past few years, the reactor manufacturers have made significant commitments of funds and facilities. Also important, they have assigned many highly qualified technical and management personnel to the program. Those commitments, as well as those discussed later in this letter, are particularly impressive in view of the heavy financial and facility pressures currently placed on the industry to meet construction schedules and other demands involved in the development and marketing of large light water reactor plants. Responsible utility industry support for the LMFBR Program is evidenced by the financial participation of over 100 utilities in cooperative development and design studies with the reactor manufacturers involving expenditures of over \$25 million per year. Furthermore, over 30 utilities have committed \$5 million for cooperative industrially supported studies of the Gas Cooled Fast Breeder Reactor concept.

While we believe the record adequately attests to the success of our efforts thus far to obtain such support, we fully agree that the industrial financial participation should increase as the LMFBR technology is developed and transferred from the laboratory to the industrial environment, and the pressures resulting from the unprecedented and unfulfilled LWR commitments are relieved in the next few years.

Therefore, we will strengthen our efforts to obtain increased industrial and utility involvement in funds, personnel and facilities. We strongly believe that increased support and heavy participation are absolutely essential, not only from the viewpoint of minimizing the cost to the government, but to help assure the technical and economic success of the Nation's civilian nuclear power program.

The suggested further reduction in the number of reactor concepts being evaluated should also be considered in context with the past performance of the Commission in this regard. In the past, the technical feasibility and economic potential of a large number of concepts have been examined. Experimental evidence has been generated which provided a basis for reducing the number of concepts to be developed, thus permitting concentration on the most promising candidates. In certain cases, it was concluded that the concepts were only marginally superior to others whose success was nearer at hand. In other cases, projects were discontinued because of especially difficult developmental problems encountered and the accompanying increased costs, delays and other difficulties associated with introducing the concept into the industrial and utility environments. During the past five years alone, programs for a number of major concepts have been terminated. These include the Sodium Graphite Reactor Program, the Spectral Shift Reactor Program, the Heavy Water Moderated-Organic Cooled Reactor Project, the Experimental Beryllium Oxide Reactor Project, the Experimental Gas Cooled Reactor Project, and the Los Alamos Molten Plutonium Program. In the last two years, the continuing cooperative evaluation effort has resulted in the withdrawal of industrial and government support from the Steam Cooled Fast Breeder Reactor concept and the Superheat Reactor concept.

At the present time, the field of promising concepts being evaluated has been narrowed to three - the Light Water Breeder Reactor, the Molten Salt Breeder Reactor, and the Gas Cooled Fast Breeder Reactor. These concepts are being investigated with varying degrees of effort principally to determine their technical feasibility. Considering the current status of development and the level of annual effort, none of these should be considered as alternatives to the LMFBR. In view of their status and the heavy industrial and utility commitments, current and projected, to light water reactors and the LMFBR, we should not expect to see significant commercial interest in these three concepts developing at this time or in the near future. It is clear that, subsequent to a determination of feasibility, significant industrial interest must be demonstrated to justify further government interest and development of these concepts. Thus, a very difficult but determined selection process has reduced the field to a very small number of very promising breeder concepts, each with a unique technical potential. We believe that any further elimination should be deferred until some very important technical information in a few key developmental areas is available and the nuclear industry and the utilities have certain essential

facts relating to feasibility. This type of information will enable them to participate with the government in the selection process. As we have planned, a certain amount of R&D support will be required to generate this important and necessary technical information and our FY 1971 proposed budget reflects this need.

While noting your reluctance to favor it, your final suggestion for relieving the current budgetary pressure was a stretchout in the LMFBR Program. As you recall, one of the major purposes of the "Cost-Benefit Analysis of the U. S. Breeder Reactor Program," made at the request of the Bureau of the Budget, was to examine implications of variations in timing of the program. Two of several major conclusions in this study relating to considerations of stretchout or acceleration of the developmental program appear to be extremely pertinent in response to the suggestion.

1. "Deferring the presently planned LMFBR R&D program with consequent delays in the introduction date does not substantially reduce the present worth of the R&D expenditures. In all cases, deferring the LMFBR R&D program increases the undiscounted R&D costs." and
2. "The increased dollar benefits from reduced costs of electrical energy alone, resulting from the early introduction of the breeder, provide a major incentive for a timely and strong research and development program, and even make a strong point for its acceleration."

In addition to the cost-benefit advantages of introducing the LMFBR on schedule, there are other very important considerations. For example, the rate of buildup on the LMFBR Program has been much slower than the U. S. and European nuclear communities believed to be desirable. Budget reductions in recent years have caused deferral of important development efforts, and any additional curtailment of LMFBR Program funds would have severe programmatic implications and a most serious psychological impact on industrial and utility management at a time when the AEC is urging that they commit substantial resources to the support of the LMFBR Program while simultaneously accepting full financial responsibility for the continued development and commercial introduction of the LWR. The planned AEC expenditures on the LMFBR Program, particularly through FY 1972, are heavily committed to the provision of test facilities and equipment intimately related to the utilization of complementing facilities and commitment of resources on the part of the nuclear reactor industry. This depth in planning led the JCAE to conclude in the 1969 Report on the AEC Authorizing Appropriations that,

"As the Commission's highest priority civilian nuclear reactor program, the liquid metal fast breeder reactor (LMFBR) program is rapidly becoming a model for coordinated, long-range planning. The Commission is to be commended for its efforts to obtain the maximum industrial contribution toward solving the technical problems and in broadening the base of industrial capability in both technical and management aspects."

The close coupling of government and industrial R&D and depth of planning has also resulted in the nuclear industry accepting these plans as the sincere intent of the Commission. This acceptance has been proven by the commitments discussed herein.

In full recognition of the stringent budget situation, it has been necessary to delete many important tasks in the LMFBR Plan, while others have been deferred and reduced in scope. Thus, it has been necessary to work more closely with our laboratories and with industry, the manufacturing organizations as well as the utilities. This close working relationship will help assure that the industry will provide increased funding and become increasingly involved and knowledgeable in the technical aspects of the LMFBR program as we become committed to the important demonstration plant part of the program. Importantly, the Commission's current efforts are concentrated on increasing the investment of utility resources on the demonstration plant program as a result of the AEC invitation for participation in the Project Definition Phase. It is already clear that the industrial organizations will provide at least as much funding as the AEC in the planned Project Definition Phase activities. In addition, we have been engaged in continuing dialogue with the top management of the utility industry, particularly the Edison Electric Institute, in an attempt to overcome the traditional reluctance on the part of utilities to provide substantial funding and a more organized approach for advanced power plant development. In this regard, the Edison Electric Institute has suggested that legislative action might be taken to facilitate the recovery of utility funds expended on R&D by allowing these expenditures to be included in the rate base.

There is other encouraging evidence that the effort to obtain more utility involvement is achieving some success. In connection with the demonstration plants alone, a minimum of 77 utilities of the over 100 utilities involved in the LMFBR Program has been identified as planning to participate in the Project Definition Phase. These include the majority of the Nation's private and public suppliers of electrical energy that have the potential for the sustained increasing involvement in the demonstration plant activities. They are also the most knowledgeable and experienced leaders in the drive to establish the viability of the

light water reactors. This interest is not unexpected since the management of these utilities are most aware of the benefits to be derived through the attainment of a self-sustaining fast breeder economy coupling the light water reactor to the LMFBR through the U-Pu fuel cycle. Recently, the Edison Electric Institute, in the study entitled "Fast Breeder Reactor Report" dated April 1968, which reflects the collective judgment of the Nation's private utilities, emphasized the importance of utility involvement and strongly supported the views of the AEC as presented herein.

In summary, I feel that it should be again stated that the LMFBR Program offers the best hope for providing the abundant amounts of electric power the Nation vitally needs and that this power can be provided economically with essentially minimum degradation of the environment. This LMFBR Program potential is universally recognized and endorsed through high national priorities by practically every major nation in the world with strong industrially oriented objectives and high standards of living comparable to those in the United States. This includes the USSR, the United Kingdom, West Germany, France, Italy and Japan.

In full knowledge of the promise of the LMFBR and other advanced reactors programs, the budgetary situation over the past several years has resulted in reluctant but repetitive reductions in planned levels of support. In fact, also, we have reduced our related FY 1971 request by about \$30 million since our spring preview. However, we do understand fully the seriousness of the current situation, and as a direct and positive response to your letter, we will carefully examine our program for means of eliciting additional industrial and utility support, with respect to substantial increased funding. We will also attempt to reduce the government's financial participation in the three demonstration plants, particularly the second and third, with the intent that technical convergence, improved management and increased efficiency in the use of our resources will prevent this action from too adversely affecting the overall objectives of the LMFBR Program.

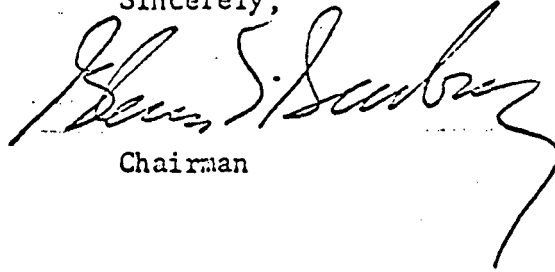
In addition, we will continue to examine each of the matters discussed herein and other alternatives which may be helpful in meeting the stringent budgetary limitations being currently faced while still meeting this Nation's commitments to develop breeder reactors as our most important peaceful use of nuclear power in a timely manner.

Honorable Robert P. Mayo

- 8 -

We would appreciate the opportunity to discuss this important matter at your convenience if you so desire.

Sincerely,

A handwritten signature in cursive script, appearing to read "Henry S. Durbin". The signature is written in dark ink and is positioned above the printed name "Chairman".

Chairman

EXECUTIVE OFFICE OF THE PRESIDENT

BUREAU OF THE BUDGET

WASHINGTON, D.C. 20503

DECL. BY FILE
NOV 26

OCT 1 1969

Honorable Glenn T. Seaborg
Chairman, U.S. Atomic Energy
Commission
Washington, D. C. 20545

Dear Glenn:

As you already know, we are moving into a very restrictive situation with respect to the preparation of the FY 1971 budget. Over the past several months I have been making a preliminary assessment of the prospective program and budgetary needs for FY 1971 and beyond with a view to advising the President on our overall budget strategy this fall.

One of the program elements which has struck me forcibly during this review is the magnitude of AEC's expenditures for the development of advanced civilian power reactors. I have been impressed by the fact that AEC's current expenditures in this area, which we estimate to be roughly \$275 million when one includes appropriate portions of the supporting reactor development work, are far in excess of total Government R&D expenditures on all other energy resources combined. I am particularly concerned that AEC's planning projections of last spring indicate a desire to increase outlays in FY 1971 to a level in the range of \$350 million, with even greater spending projected in subsequent years. These figures would be even larger if one were to include amounts for administration and the cost of special nuclear materials used in the program. I am struck also by the fact that the development of improved civilian power reactors is essentially a commercial and industrial enterprise, even though a significant degree of Federal guidance and support may well be expected for some years to come.

The largest element by far in AEC's civilian power development program, is, of course, the Liquid Metal Fast Breeder Reactor Program, and I am well aware of the fact that the Commission considers this to be its highest priority development program in the civilian area. Because the electric power industry and the equipment supply industry appear to have sufficient incentives and financial resources to shoulder a much larger share of the research and development investment, and because of the extraordinary pressures upon the Federal budget in the years immediately ahead, I believe that we must make a strenuous effort to reduce the dollar level of AEC's current support for the LMFBR and the other portions of the civilian power development program.

Among the means which appear to be available to accomplish this objective are the following: (1) to effectuate a plan for greater cost participation by industry in the LMFBR program, where considerable industrial interest

and planned investment is apparent; (2) to reduce further the number of backup efforts to the LMFB, especially those programs where little commercial interest has materialized; and (3) to give consideration to some stretchout in the LMFB program. There may well be other opportunities which occur to you.

Of the means described above, I am most attracted to numbers 1 and 2. When one considers the immensity of financial resources and cash flow in the electric utility and electric equipment manufacturing industries, one must conclude that industry should carry a significantly greater fraction of the total national R&D load for the LMFB than prevails at the present time. We would further expect that the aggregate amount of Federal spending for civilian nuclear power development should be reduced substantially below current dollar levels in subsequent years, with increasing cost participation by industry.

We recognize that securing more funding participation by private industry in the development of improved civilian power reactors presents formidable procedural problems. However, we believe that this is an important and, indeed, necessary objective which is far preferable to the alternative of a reduced effort which budget constraints may otherwise impose.

I have taken the unusual step of writing this letter to highlight this problem, because I believe we must tackle the problem at once if we are to achieve an optimum solution. We will be pleased to assist you in this endeavor.

I should greatly value having your reaction to my letter at your earliest convenience.

Sincerely,



Robert P. Mayo
Director

in which it was suggested that a strenuous effort be made to reduce the dollar level of our current support for the LMFBR and other portions of the civilian power development program.

I wrote to Peter about my projected trip to the Bay Area later this month.

Wednesday, November 5, 1969 - D.C.

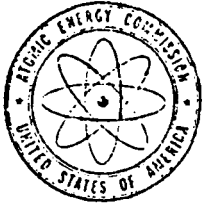
From 9-10:20 a.m. Bob Hollingsworth, Ed Giller, John Abbadessa and I met with Bureau of the Budget officials--James R. Schlesinger (Acting Deputy Director), Bill Morrow (Examiner for DOD), Fred Schuldt (Examiner for AEC), and Dan Taft (Assistant to Schuldt). The purpose of the meeting was to discuss the Bureau's proposed reduction of \$16 million in the AEC's exemption from the Presidential directive requiring deferral of 3/4 of our construction projects during FY 1970. We explained the critical nature of the items in the \$16 million total and how these are required in order to meet our IOC's for weapons such as SAFEGUARD, POSEIDON, MINUTEMAN III, LANCE, etc. We also explained why we couldn't take this out of our remaining 1/4 construction budget because this would decimate civilian projects such as the 200 Bev Accelerator, AGS conversion, the FFTF, the LOFT facility, etc. I believe we made some impression on Schlesinger and his colleagues, and that they will restore at least part of the \$16 million exemption. Schlesinger will get in touch with Packard in order to advise him of his decision and will soon let us know the results of his determination.

I had lunch with Julie Rubin, Justin Bloom, Stan Schneider, and Bob Davids in the Commission dining room. We discussed the general status of affairs in the Chairman's office.

At 3 p.m. I presided over Information Meeting 960 (notes attached). We discussed a memo we received from Harry S. Flemming (Special Assistant to the President) (copy attached) which requests a report each Friday on the number of non-career positions available. We also discussed a memorandum from Elliot Richardson (copy attached) which enclosed the draft of the recommendations to the President, with alternative courses of action, concerning his commitment to Prime Minister De Jong (Netherlands) last May to study the possibility of closer cooperation in the field of nuclear propulsion.

I sent a letter to President Nixon (copy attached) presenting him with copies of The New World and Atomic Shield, the first two volumes of AEC's history.

Helen and I had dinner at California Congressman Glenn and Lee Anderson's (1613 30th, Georgetown). The other guests were K. K. and Mary Bigelow (Washington representative of Harvey Aluminum which is now part of Martin-Marietta), Mr. and Mrs. Aurelio Valls (Minister Counselor, Spanish Embassy) and Congressman and Mrs. Edward R. Roybal (representing the Boyle Heights district of the Los Angeles area). I told Valls about my planned visit to Madrid in January, and we discussed the possibility of my visiting Prince Juan Carlos and Princess Sophia at that time. Congressman Glenn M. Anderson represents the Harbor City area adjoining the Long Beach district of Craig Hosmer. We have known the Andersons since his days as lieutenant governor of California when he also served as a regent of the University of California.



UNCL. BY DOE
NOV 89

UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

COPY NO. 3
November 5, 1969

INFORMATION MEETING 960

3:10 p.m., Wednesday, November 5, 1969, Chairman's Conference Room, D. C.

1. Department of Defense Position re AEC Construction Projects

The Chairman reported briefly on his discussions with the DOD and on his meeting this morning with BOB officials.

✓ 2. The President's October 27 Memorandum re Service to the Public

Staff recommendations are requested. (AGM)

✓ 3. The President's October 31 Memorandum re SALT Negotiations

Noted.

4. October 30 Memorandum from Harry Fleming, Special Assistant to the President, re Report on Personnel

A response is to be sent by Friday, November 7. (Rubin-SECY)

✓ 5. November 4 Memorandum from Under Secretary Richardson re Cooperation with the Netherlands

To be circulated for the Commissioners' comments. (Rubin-SECY)

6. AEC 603/144 - Letter from Chairman, Joint Committee, to Comptroller General re HEP Program Review

Noted.

W. B. McCool
Secretary

3:45 p.m.

PRESENT:

COMMISSIONERS:

Chairman Seaborg
Commissioner Ramey
Commissioner Johnson
Commissioner Thompson
Commissioner Larson

STAFF:

Mr. Rubin
Mr. McCool

DISTRIBUTION:

Commissioners
General Manager
General Counsel
Secretary

THE WHITE HOUSE
WASHINGTON

October 30, 1969

MEMORANDUM FOR

Honorable Glen T. Seaborg
Chairman
Atomic Energy Commission

Would you please forward to this office each Friday personnel reports on Non-Career positions in your organization broken down into these categories:

1. Number of Non-Career positions available.
2. Number of Non-Career positions you intend to replace.
3. Number of Non-Career positions replaced or in White House clearance on reporting date.
4. The percentage of (2) and (3) above.
5. The breakdown in number of Republicans, Democrats and Independents in category (3).

Please note the following in submitting your report:

1. Full, complete reports (see format attached) on all Non-Career positions are to be received in this office no later than 5:00 p.m. on the first Friday of each month.
2. The format attached is to be used for the first Friday reports.


Note the attempt to centralize reporting by the addition of four categories -- Ethnic Background, Age, Sex, and Immediate Past Employment. The last category requires identification only by one of the three headings shown.

3. Full, complete reports on vacancies only, both existing and anticipated, are to be received in this office no later than 5:00 p.m. on the second, third, and fourth (or fifth) Fridays of each month.

The vacancy report must be separately prepared. It must not be a resubmission of the first Friday report with vacancies simply circled or underlined.

4. The initial reports under this new procedure will be due in this office no later than 5:00 p.m. on Friday, November 7. Thereafter, the procedure described above will apply.
5. Continue to submit as a part of the first Friday report the five categories of information outlined above.

I want to accentuate that the compilation of this data is for the use of the President. Therefore, it is necessary that you assign the highest priority to the quality and timeliness of the information submitted. All deadlines will be strenuously enforced. If you have any questions on the reporting procedure, please telephone immediately George T. Bell, at Ext. 2701.


Harry S. Flemming
Special Assistant
to the President

Enclosure

NON-CAREER POSITIONS FILLED OR IN THE CLEARANCE PROCESS AS OF REPORTING DATE

Department _____ Date _____

<u>NAME OF APPOINTEE</u>	<u>TITLE</u>	<u>POLITICAL AFFILIATION</u>	<u>VOTING STATE</u>	<u>TYPE OF APPT. AND GRADE</u>	<u>ETHNIC BACKGROUND</u>	<u>AGE</u>	<u>SEX</u>	<u>IMMEDIATE EMPLOY</u>
John-E. Jones	Deputy Assistant Secretary (Trade)	Republican	Ill.	NEA, GS-16	English	45	M	Government
Thomas O. Smith	Special Assistant to the U/S	Republican	Texas	Sch. C, GS-15	Negro	37	M	Academic
Clarence Cox, Jr.	Director of Public Affairs	Independent	N. Y.	PA, Level V	Italian	40	M	Business

THE UNDER SECRETARY OF STATE
WASHINGTON

UNCL. BY DOE
NOV 86

NSC
UNDER SECRETARIES COMMITTEE

November 4, 1969

Dear Glenn:

Since June we have under the aegis of the Under Secretaries Committee considered ways of implementing the President's decision of last May that we and the Dutch would study the possibility of closer cooperation in the field of nuclear propulsion.

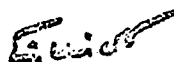
The attached memorandum to the President contains what I believe is the area of agreement and frankly states the differences of view which also exist. Rather than attempt to ignore these differences I think we owe it to the President to be forthright. You will note that we plan to attach the Defense Department paper of October 23, 1969.

Unless you feel that your views have not been correctly represented, in which case I would appreciate your letting me know promptly the way you wish to state them, I plan to send this memorandum forward. As you know our report is overdue.

The Honorable
Glenn T. Seaborg,
Chairman,
Atomic Energy Commission.

I also doubt that any particularly useful purpose would be served by having a meeting of the Under Secretaries Committee on this paper. However, if you feel otherwise please let me know as we should arrange to meet very quickly.

Sincerely,



Chairman

Enclosure:

Memorandum to the President

NOT DECLASSIFIABLE REFERENCE SHEET

Title of Document Memo for the President: Dutch
Interest in Nuclear Propulsion

Date 11-4-69

This document has been determined to be NOT DECLASSIFIABLE* and has been removed from this folder.

PROVENANCE

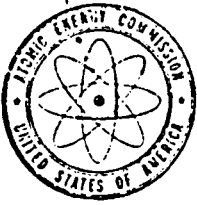
OFFICE DIARY
GLENN T. SEABORG
CMR USREC, 1961-72
FOLDER-PAGE 107069-107073

* Ltr. OASD, BOULING, To DOE, DC, GILBERT 2/25/77
Ltr. DOS, BURKE, To DOE, DC, GILBERT 1/11/77

CRS
Name

9-8-88
Date

107069-107073
inclusive pages



UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

UNCL. BY DOE
NOV 86

November 5, 1969

The President
The White House

Dear Mr. President:

During President Eisenhower's administration, the Atomic Energy Commission established in its headquarters staff a small group of historians and assigned them the task of preparing a series of volumes which would explain the circumstances and decisions surrounding some of the truly historical events which have resulted from the nation's atomic energy program since 1939.

The first volume in this series, entitled The New World, 1939-1946, was published in 1962. The second volume, Atomic Shield, 1947-1952, has just been published this week.

It is a great honor for me to present you with this set of the first two volumes. Taken together, they form a comprehensive history of the development of atomic energy during the first decade of the nuclear age. In a sense they provide the background for such historical landmarks as President Eisenhower's Atoms-for-Peace plan in 1952 and the first two Geneva conferences on the peaceful uses of atomic energy in 1955 and 1958, which will be major topics in the third volume of the series.

I hope that you will have an opportunity to examine these volumes and that you will find them informative.

Respectfully yours,

A handwritten signature in cursive script, reading "Glenn T. Seaborg".

Chairman

Thursday, November 6, 1969 - D.C.

At 9:30 a.m. I was visited by Dr. Kee Hyong Kim (Korean Minister of Science and Technology) who was accompanied by Woon Soo Jeong (Secretary to the President of the Republic of Korea), Hyung Ki Kim (Science Attache, Ministry of Science and Technology) and Chong Hwa Lim (Secretary to the Minister of Science and Technology). Also present were Myron Kratzer, Dick Willett (DIA) and Julie Rubin. Dr. Kim told me about the nuclear power plant that is being built in southeast Korea for operation in 1974. He also described the Korean Atomic Energy Research Institute, saying that it is the largest and best in Asia and that their planned 2 Mw research reactor will give the highest flux in Asia. He invited me to visit Korea, and I indicated that I might find it possible to do this in March. He said that our inability to furnish cost-free the AEC reports in their depository library will cause them no trouble; they will be able to pay for these out of their budget.

At 10 a.m. I met with Dr. Walter Perry, Vice Chancellor of the recently created Open University in England. The meeting had been arranged as the result of Warren Everote's (President, Encyclopaedia Britannica Education Corporation) interest in the Open University and his knowledge of my interest in education. Perry described the Open University. It teaches through TV, radio and correspondence with the help of some 200 to 250 study centers throughout England. It will have an enrollment of 25,000 students and is the result of Prime Minister Harold Wilson's idea to make liberal arts instruction available to the masses of students in England that are not able to attend universities under the present system. I called Jim Day (President, National Educational TV) in New York and set up an appointment for Dr. Perry to meet with him next Monday.

I met with the ACS Committee on Chemistry and Public Affairs from 11:40 a.m. until 2 p.m. I picked up the end of the morning meeting at the ACS Headquarters during a discussion of "Chemistry and U.S. Economy Study." We then walked over to the Madison Hotel for lunch. At the luncheon Chairman Frank Long initiated a discussion on future areas of exploration that the Committee might undertake. I mentioned the possibility of an exploration of the problems of science and society along the lines of the speech I gave at the Nobel Symposium in Stockholm. Other suggestions included the investigation of the problem of technology assessment, ways of bringing the Vietnam war to an end, ways in which Chemistry might encompass new fields, the relevance of present methods of education in chemistry, the further investigation of means of alleviating pollution, the need to expedite the Committee's reports, etc.

After the luncheon we returned to the ACS Headquarters, where we discussed a proposed Public Affairs symposium on higher education to be held at the Chicago ACS meeting next year and the objectives of the special committee on the Study of Chemistry and Education (of which I am a member). I suggested to Charles Overberger (chairman of the Public Affairs Symposia) that his committee review the Special Report and Recommendations by the Carnegie Commission on Higher Education and establish liaison with President Hester's White House Task Force which is investigating the priority of higher education.

At 2:45 p.m. Commissioners Ramey, Johnson, Thompson, Larson and I, as well as Harold Price, Peter Morris and Martin Biles met with the ACRS.

ACRS members present were: Joseph Hendrie (Vice Chairman), Spencer Bush, Harold Etherington, Hibbert Hill, Herbert Isbin, Warren Kaufman, Harry Monson, Arlie O'Kelly, David Okrent, William Stratton, Chester Siess and Ray Fraley (Executive Secretary). We discussed: (1) emergency procedures for the coordination of state and local agencies in the event of large reactor accidents, (2) the question of the problem of radioactive waste effluent limitations under consideration and proposed revisions of 10 CFR, Parts 20 and 50, and (3) reactor safety research involving LOFT, PBF, LMBFR, etc. George Kavanagh and Milt Shaw were present for Item 3. In connection with Item 2, Hill described the following conclusions of the subcommittee: (1) there should be a redraft of the ACRS's proposed revision of Part 20 so as to make it more definite; (2) there should be a thorough and urgent restudy of the Part 20 limitations; and (3) there should be a study to develop information on the real efficiency and cost of present and of future, more complete control of radioactive effluents in nuclear power plants. Hendrie feels that the present proposed Part 20 limitations for radioactive effluents should be revised to a lower concentration, a view that is at variance with that of Commissioners Ramey, Johnson, Thompson and Larson but not inconsistent with my developing views.

Harry Smyth came in to see me around 5 p.m. He wanted to discuss the general status of affairs in connection with his responsibilities as the U.S. Representative to the IAEA. He said that his eventual retirement from this position, although he has no present intention of doing so, will be contingent upon finding a suitable replacement, and he thinks that Jerry Tape would fill this requirement very well. We also discussed the problems that have arisen with respect to the appointment of Irwin Tobin as his deputy and our feeling that this may involve the matter of a political evaluation since Tobin is a Democrat. Smyth told me that he is an Independent and has not voted in the primaries which, of course, would label his party affiliation.

I received a memo from President Nixon (copy attached), addressed to Heads of Department and Agencies, asking each of us to personally direct our staffs in the task of considering and developing proposals in our area of responsibility for the State of the Union message.

I attended a reception given by the Advisory Committee on Isotopes and Radiation Development in Executive Chamber No. 3 at the Madison Hotel. Among those present were: John Landis (Chairman, ACIRD), Milton Burton, Bernard A. Fries, Ira L. Morgan and Lyle E. Packard (Committee members) and Calvin Brantley. Commissioners Ramey, Johnson and Larson, Julie Rubin, Justin Bloom, Stan Schneider, George Kavanagh, Gene Fowler and other staff were also present.

Helen and I attended a motion picture preview at the invitation of Jack Valenti at the Motion Picture Association (1600 Eye Street, N.W.). We saw the picture "Goodbye, Mr. Chips" starring Peter O'Toole and Petula Clark. Among those present were Mr. and Mrs. Herb Blunck, Senator and Mrs. Frank Church, Mr. and Mrs. Jerry Siegel (attorney with the Washington Post), Merriman Smith and Ambassador and Mrs. Aslan Afshar (Iran).

THE WHITE HOUSE
WASHINGTON

UNCL. BY DOE
NOV 86

November 5, 1969

MEMORANDUM FOR

HEADS OF DEPARTMENTS AND AGENCIES

It is time to begin preparing the proposals that we will offer in the State of the Union message early in 1970.

Consequently, I am asking each of you personally to direct your appropriate staff members in the urgent task of considering and developing proposals for your area of responsibility.

It is important that you consider both the immediate and long term goals in your field. This means, first, the proposal of specific programs that you believe we should submit to the Congress next year. In addition, it is highly important that we outline our approach to the course we believe our country should take in the years ahead. We must make an imaginative and compelling statement of our objectives and purposes.

Your proposals, in the form that you would like to see them presented to the Congress, should be sent to my Assistant for Domestic Affairs, John Ehrlichman, no later than December 1, 1969. Brief descriptions of legislative proposals in support of such material should be made available through the Bureau of the Budget by the same date.

Richard Nixon

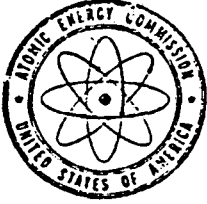
Friday, November 7, 1969 - Germantown

Rickover called about Elliot Richardson's November 4 letter to me (attached with November 5 Journal) regarding implementation of the President's decision that the U.S. and the Dutch study the possibility of closer cooperation in the field of nuclear propulsion. Rickover said there is a "secretariat" (a staff group to prepare recommendations for the Under Secretaries Committee), consisting of AEC, DOD, CIA and State, but the group has never met. Now the Memorandum to the President goes much further than Point I ["That we invite the Netherlands Government to send an appropriate team to Washington for discussions with a U.S. group on the financial implications of a nuclear-powered attack submarine program; the training and education requirements for such a program; and the logistic and industrial backup required to initiate and maintain the program (this would not involve the disclosure of information on nuclear submarine propulsion technology as such and we would so inform the Dutch in advance)."] (Point II recommends: "That we develop detailed scenarios for further options including a) sale of U.S. nuclear-powered attack submarines, b) U.S. assistance to a European production consortium, and c) U.S. consent for such assistance by the U.K. as an initial step in a review of our basic policy on cooperation with NATO allies in development of naval nuclear propulsion.") He said that this is going to produce real political problems.

Rickover repeatedly urged that the AEC not be "precipitate," but rather that this matter be handled in a deliberate fashion, with no rush or urgency. He suggested that it be put into regular channels (DIA). I said that is essentially what we are doing. He said that before we reply to the letter, he hopes he will have a chance to talk to the Commission; I said we always arrange such discussions, and would be glad to do it this time, if he so wishes. After he put forth additional arguments, I said that the President has committed himself to discussions with the Dutch. Rickover said that that isn't very clear, and that "we're trying to smoke out just how far he has committed himself." I said that Kissinger has made it very clear to us that the President wants to go ahead with discussions with the Dutch, and I thought that the topics suggested in Richardson's memorandum (Point I) constituted a reasonable plan for this discussion. I said that maybe Rickover might want to see the President since he feels so strongly; he said he couldn't suggest that but added that maybe I could.

At 10 a.m. I presided over Information Meeting 962 (notes attached). We discussed the impact of budget stringencies in FY 1970 on the weapons production schedule and determined that it will be necessary to slip the IOC dates for a number of weapons such as POSEIDON, MINUTEMAN, LANCE and others. We also decided that it will be necessary to amend our FY 1971 budget request by an additional \$31 million in order to meet existing contractual commitments for procurement of uranium concentrates (because our attempts to reduce these commitments by convincing the suppliers that they should reduce their deliveries has failed) and to cover an additional request for new weapons from the DOD.

At 11:30 a.m. Commissioners Johnson, Thompson, Larson and I attended a meeting with the Advisory Committee on Isotopes and Radiation Development. Present were: John Landis (Chairman), Dr. Milton Burton, Dr. Bernard Fries, Dr. David Harmer, Dr. Ira L. Morgan, Lyle E. Packard,



ENCL. BY DOE
NOV 86

UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

COPY NO. 3
November 7, 1969

INFORMATION MEETING 962

10:05 a. m. , Friday, November 7, 1969, Room A-458, Germantown

1. AERWA Christmas Party, December 19, 1969

Scheduled. (SECY)

2. Presentation of the Robert E. Wilson Award to Mr. W. Kenneth Davis at the American Institute of Chemical Engineers Luncheon, November 18, 1969, Washington, D. C.

Commissioners Johnson and Thompson will plan to attend. (Rubin-SECY)

3. Directorate for Uranium Enrichment (Revised November 5 White House and AEC Press Releases)

Approved with changes for discussion with White House staff.
(Rubin-AGMP&P-PI)

4. JCAE October 9 Letter to William D. Ruckelshaus, Department of Justice, re Monticello Nuclear Generating Station: Suit Contesting State Regulation of Radiological Safety Matters

Circulated for information. (SECY)

5. Commissioner Thompson's Report on His November 6 Meeting with Messrs. Flanigan and Wolfe, White House staff, to Discuss US-State Responsibilities in the Regulation of Nuclear Power Reactor Radiological Effluents

Noted with a request. (SECY-GC)

6. October 28 Letter from John Foster re Requirement for Development of Improved 155 mm Howitzer Nuclear Projectile
Staff review is requested. (AGMMA)
7. November 3 Memorandum from Mr. Shaw re ZPPR Dedication
Commissioner Thompson will attend. (SECY)
8. Agenda for the Week of November 10, 1969
Approved. (SECY)
9. NTS Events (See General Giller's November 6 Memorandum)
Noted with a request. (AGMMA)
10. October 31 Letter from Under Secretary of State Richardson re Underground Test Review Procedures
Noted. (AGMMA-SECY)
11. Enrico Fermi Award Ceremony and Reception (See Secretary's November 6 Memorandum)
Noted with requests. (SECY)
12. E. O. Lawrence Award Ceremony, May 11, 1970, Lawrence Hall of Science, Berkeley, California
Approved with a request. (SECY)
13. Painting of ACRS, GAC, and AS&LBP - D. C. Offices
Approved. (SECY-HQS)
14. November 6 Meeting Reminder for Commissioners' November 10 Luncheon Meeting with Dr. Thomas Paine, Administrator, NASA
Noted. (SECY)

15. Date of May 6, 1971 for Commissioners' 1971 Meeting with the Atomic Industrial Forum, Williamsburg, Virginia

Approved with a request. (IP-SECY)

16. AEC 1283/57 - FY 1970 Weapons Program Budget

The BOB and Messrs. Flanigan and Kissinger, White House, are to be informed. (OC-AGMMA)

17. AEC 1311/26 - FY 1971 Budget Amendment

Approved. (OC-AGMMA-RM)

18. AEC 484/13 - Duality Study: Weapons Production Facilities

Noted with a request. (AGMMA)

19. AEC 374/220 - High Yield Test Schedule

The revised schedule is noted. (AGMMA)

20. Possible Strike at NTS

A report is requested. (LABR)

21. AEC 1309/22 - MILROW: Participation in Scientific Society Meetings to Report Effects

Approved with a request. (AGMMA)

22. AEC 152/252 - Practical Value: Proposed Reply to Senator Aiken's Letter of October 28, 1969

A revised letter is to be prepared. Commissioner Ramey will see Senator Aiken. (GC-Congr.-Fremling)

23. AEC 1318/19 - Proposed Public Affairs Activities

Approved. (PI)

24. United Nations Symposium on the Environment, November 20, 1969,
San Francisco, California

The Chairman requested further information. (AGM)

W. B. McCool
Secretary

11:30 a. m.

PRESENT:

COMMISSIONERS:

Chairman Seaborg
Commissioner Ramey
Commissioner Johnson
Commissioner Thompson
Commissioner Larson

STAFF:

Mr. Hollingsworth
Mr. Bloch
Mr. Brown
Mr. Rubin
Mr. Kull
Mr. McCool
Mr. Quinn*
Mr. Babb*
Gen. Giller*
Mr. Bauer*
Mr. Roser*
Mr. Clark*
Mr. Faulkner*
Mr. Harris*

DISTRIBUTION:

Commissioners
General Manager
General Counsel
Secretary

*Attendance by Topic (s)

Dr. A. J. Restaino and Dr. Seymour Rothchild. Dr. English, Ed Bloch, Justin Bloom and other AEC staff also attended. We discussed a number of areas, such as AEC and industry relationships in radioisotopes production and pricing, patent arrangements for cooperative development projects, communications between the Division of Isotopes Development and industry, special program highlights, such as the artificial heart program, the food irradiation program, etc.

I had lunch with John Landis and Julie Rubin. Landis told us that he would like to arrange a high level meeting between the Commissioners and Gulf General Atomic representatives, such as Bob Dorsey, to discuss future plans and financial problems with respect to marketing a high power HTGR on a commercial basis.

At 2 p.m. I presided over Information meeting 963 (notes attached). We discussed the memo I received from Richardson (November 4) concerning the Dutch interest in nuclear propulsion, and I described my telephone call from Rickover on this subject. This is a continuing problem because President Nixon made a commitment to Prime Minister de Jong for U.S. - Dutch discussion of the Dutch interest in nuclear propulsion, and Rickover and some members of the JCAE seem to want to try to prevent even discussion on such broad topics as the financial and educational aspects of such a program.

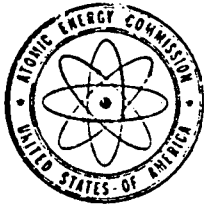
At 3:30 p.m. I presided over Commission Meeting 2397 (action summary attached). We decided to extend the guaranteed purchase price period for privately produced U-233 for five years, through December 31, 1975. The current price is \$13 per gram subject to adjustment for the presence of other uranium isotopes and other deductions for handling costs. We also heard a briefing by Frank Baranowski on the great progress that has been made in the gas centrifuge process for enriching U-235, and we discussed means of finding funds for accelerating this work.

I received a copy of NSDM-32 (copy attached) which announces the President's decisions on Water Development and the Middle East Policy. These decisions were made as the result of a study on this subject which the President requested in NSSM-30 (attached on March 20, 1969).

Helen and I attended Ambassador and Mrs. Anatoly Dobrynin's reception in honor of the 52nd anniversary of the Revolution, held at the Russian Embassy. I discussed briefly with Ambassador Dobrynin my recent trip to the Soviet Union and the forthcoming observances of the Mendeleev Centennial in the U.S. by the Welch Foundation in Houston in November and the AAAS Symposium in Boston in December. Among the people that Helen and I talked to were: Transportation Secretary and Mrs. John Volpe, former Interior Secretary and Mrs. Stewart Udall, Louisiana Senator Allen Ellender, Dorothy McCardle (Washington Post), Deena and Blake Clark, Mr. and Mrs. Edmund Pendleton (Chairman, D.C. Republican Committee), Ambassador and Mrs. Abidia (Libya) and Mr. and Mrs. Charles MacGowan (former director of the Office of Saline Water, Department of Interior) and their daughter.

Saturday, November 8, 1969 - D.C.

I worked in the office until about 1 p.m. I then attended a luncheon in Room A of the Cosmos Club with Athelstan Spilhaus, Allen V. Astin,



UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

UNCL. BY DOE
NOV 86

COPY NO. 3
November 7, 1969

INFORMATION MEETING 963

1:55 p. m. , Friday, November 7, 1969, Room A-458, Germantown

1. AEC 603/143 - Reduction in FY 1970 and FY 1971 Funding Levels for the Princeton-Pennsylvania Accelerator

Changes are requested. (R)

2. Directorate for Uranium Enrichment (Revised November 5 White House and AEC Press Releases)

The Chairman requested the Joint Committee be informed. (AGM-Rubin)

3. AEC 1037/62 - Serpukhov: Proposed Joint Experiments

Approved with changes. (AGMIA)

4. AEC 23/89 - Czechoslovakia: Proposed French Export of Neutron Generator

Approved. (AGMIA)

5. Cooperation with the Netherlands re Nuclear Propulsion

Admiral Rickover will discuss with the Commissioners, 3:30 p. m. , Monday, November 10, 1969, D. C. Office. (SECY)

6. AEC 478/118 - International Exhibits for FY 1970-72

Noted with a request. (AGMIA-AGMA)

7. Topics for Commissioners' Meeting with the GAC, November 10, 1969,
(a) Gaseous Diffusion Discussion; (b) Special Awards

Noted with requests. (SECY)

8. AEC 534/77 - Dow Safety Committee Problem

Approved. (LABR)

9. AEC 842/41 - Elk River Reactor Project

Noted. (RDT)

10. AEC 1301/5 - Additional Funds for NAS/NRC Committee on the Alaska
Earthquake

Noted. (R-AGMMA)

11. AEC 343/21 - Joint Committee Request for Historical Documents

Noted. (SECY)

12. Pending Contractual Matters Report No. 333

Noted with a request. (BM-SECY)

W. B. McCool
Secretary

2:55 p. m.

PRESENT:

COMMISSIONERS:

Chairman Seaborg
Commissioner Ramey
Commissioner Johnson
Commissioner Thompson
Commissioner Larson

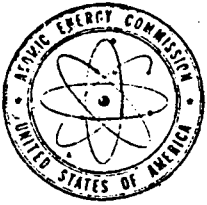
STAFF:

Mr. Hollingsworth
Mr. Bloch
Mr. Ferguson
Mr. Kull
Mr. Rubin
Mr. McCool
Mr. McDaniel*
Mr. Kratzer*
Mr. Gaughran*
Mr. Roser*
Mr. Brown*

DISTRIBUTION:

Commissioners
General Manager
General Counsel
Secretary

*Attendance by Topic (s):



UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

UNCL. BY DDC
NOV 88

November 7, 1969

Approved _____

REH

Date _____

R. E. Hollingsworth, General Manager

ACTION SUMMARY OF MEETING 2397, FRIDAY, NOVEMBER 7, 1969, 3:30 P.M.,
ROOM A-410, GERMANTOWN, MARYLAND

SECY:SBR

Commission Business

1. AEC 720/208 - U-233 Price Extension

Approved.

The letter to the Director, BOB is to be signed by the Chairman.

Commissioner Johnson requested staff prepare an appropriate reply to Gulf General Atomic after GGA's letter is received.

(OA)

2. AEC 610/185 - Gas Centrifuge Program (See also AEC 610/191)

Discussed and to be rescheduled. (SECY)

The Commission requested:

- a. Staff investigate the desirability of seeking an exchange of certain patent rights with the UK; and
- b. An evaluation of the costs involved in an accelerated developmental program.

(P)

You said you would prepare a staff paper including requirements for CP&D funds.

3. Mr. Shaw's October 7 Memorandum re Release of Reports for Unlimited Distribution: WASH 1085 and WASH 1086

Approved.

The Commission requested the first page of WASH 1086 acknowledge the close cooperation of the AECL.

(RDT)

Original signed

W. B. McCool

W. B. McCool
Secretary

cc:
Commissioners

NATIONAL SECURITY COUNCIL
WASHINGTON, D.C. 20506

UNCL. BY DOE
1988

November 6, 1969

National Security Decision Memorandum 32

TO: The Secretary of State
 The Secretary of Defense
 The Secretary of The Interior
 The Secretary of Agriculture
 The Chairman, Atomic Energy Commission
 The Director of Central Intelligence
 The Administrator, Agency for International Development

SUBJECT: Water Development and Middle East Policy

With reference to the memorandum of September 9, 1969, from the Chairman of NSCIG/NEA to the Chairman of the NSC Review Group entitled "Desalting in the Near East--NSSM 30," the President has made the following decisions:

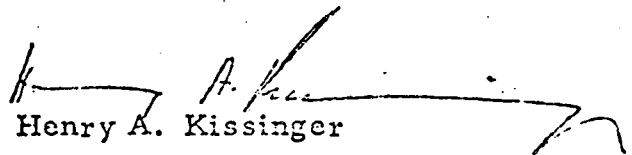
1. He has agreed that decisions on broader policy for overall water development in the Near East should be deferred until early next year.
2. He has approved the following Administration position on the Israeli desalting plant to be used with the Government of Israel and with appropriate Congressional Committees:
 - a. Budgetary constraints make it impossible for the Administration to proceed now with plans to build a desalting plant in Israel.
 - b. Budgetary considerations apart, the Administration believes that intermediate experimentation with new technology is necessary before a large operating plant can be built anywhere. The Administration believes that there are compelling advantages in doing this work in the U.S.

c. The Administration is keeping open the possibility of later cooperation in the Israeli project.

d. The Administration intends to press ahead with research in desalting technology and will insure close cooperation with Israeli technicians.

3. He has asked that the Director, Bureau of the Budget in cooperation with the Science Advisor to the President coordinate a recommendation on whether a module to test the new technology should now be built in the U.S.

The Secretary of State will coordinate appropriate actions to inform the Government of Israel and the Congressional Committees concerned.


Henry A. Kissinger

Copies to: The Director, Bureau of the Budget
The Science Advisor to the President

Wallace R. Brode, Bowen C. Dees, Dorothy Schriver and Ted Sherburne to discuss the possible merger of Science Service with the AAAS. We decided that this would be a good thing to do. I will appoint a committee consisting of Astin, Ted Scripps and me to meet with a committee of the AAAS, appointed by Spilhaus (President-Elect of the AAAS), consisting of Wallace Brode, William T. Golden and Spilhaus. Dael Wolfle will act as secretary of this negotiating committee.

Following the luncheon we went to Science Service Headquarters, where I presided over a meeting of the Board of Trustees. Present were: Astin, Brode, Spilhaus, Dees, O. W. Riegel, Leonard Carmichael, Edward W. Scripps II, Dorothy Schriver and Ted Sherburne. Among the items of business the most important was our decision to try to negotiate a merger of Science Service with AAAS through the means of a negotiating committee. We also decided to hold in abeyance the sale of Science Service buildings (decided as a course of action at the last Trustees' meeting) because of the relationship of this to the merger with AAAS. The reasons for the merger with AAAS are to put Science Service on a more sound financial basis and the synergistic effect on the programs of Science Service and AAAS, especially in the area of youth activities.

I went for a hike with Suki in Rock Creek Park, starting at Oregon and Nebraska Avenues on the White Horse Trail to Cross Trails 3 and 4 and returning on the White Horse Trail to our starting point.

In the evening Helen and I attended a reception at the apartment (Van Ness East) of Mrs. Deedee Whitney (Arthur Cobb's sister) given in honor of Arthur and Pat Cobb. Also present were Mrs. Cobb (Arthur's mother), Mr. and Mrs. Lowell Goerlich (neighbors of ours and the Arthur Cobbs when they lived here), and Mr. and Mrs. Al Louch (a University of California, Berkeley, graduate).

Sunday, November 9, 1969

Eric and I went to Pete and Kay Quesada's (84 Kalorama Circle) for brunch. Also present were C. R. Smith (former president of American Airlines and a former Secretary of Commerce), and Sally McConnell (whose husband is former Chief of Staff of the Air Force). After brunch we all went to Kennedy Stadium in Mrs. McConnell's car and we sat in the mezzanine (Section M-21) along with our hosts, Mr. and Mrs. Jim Lemon (former chief owner and now part owner of the Washington Senators), and Admiral and Mrs O. D. Waters, Jr. (Oceanographer of the Navy) and their daughter, Misty. At half-time we all went to Lemon's office for refreshments and were joined by Joe Burke (General Manager of the Senators).

Helen and Dianne went to Kennedy Stadium with Julie and Scottie Rubin, and they occupied our regular seats.

The Washington Redskins were tied by the Philadelphia Eagles (28 to 28) as the result of a questionable pass interference called in the last minute.

Eric, Suki and I hiked in Rock Creek Park, starting at Oregon and Nebraska Avenues on the White Horse Trail to Cross Trails 3 and 4 and returning on the White Horse Trail to our starting point.

I worked on my speech, "The Expanding Role of the Atom in the Humanities" that I will give as the memorial lecture in honor of Paul Aebersold at the ANS meeting in San Francisco on December 2.

Monday, November 10, 1969 - D.C.

Herman Pollack came in to talk about the appointment of Irwin Tobin as Deputy U.S. Representative to the IAEA. He has learned that this is tied up in the State Department and the White House because of questions concerning Smyth's future as the U.S. Representative. There is apparently some suggestion, possibly originating with Lewis Strauss, that Tobin and Smyth are both Democrats, and this would be undesirable. I told Pollack that Smyth told me that he is an Independent. Pollack told me that he has also learned that Smyth discussed this with DuBridge on Friday (after he had seen me on Thursday), and that in the course of this conversation, perhaps as the result of a suggestion from DuBridge, it seemed to be agreed that Smyth might resign, sometime in the framework of next March to June. I indicated that this was inconsistent with my discussion with Smyth when he indicated he intends to stay on.

Pollack then went on to another question, namely, whether the AEC had really stated, in response to a request from the Department of the Army, that they would rather not destroy the supply of poisonous chemicals (which has turned out to be such a burden to the Army) through the use of a controlled nuclear explosion in Nevada. I said that this is an accurate description of the AEC's position. He said that the AEC may be questioned about this in congressional hearings in connection with a possible release of the report that recommended that the AEC perform this task. Pollack finally mentioned that Wally Joyce, his assistant with a scientific background, will be leaving him next spring, and he would like my recommendations for a replacement.

I called DuBridge and told him that I had a session with Harry Smyth last Thursday and with Herman Pollack this morning, about Smyth's future. Smyth indicated to me that, although he was of the opinion that Tape would be a good replacement for him as U.S. Representative to the IAEA, he himself had no intention of giving up the position any time in the near future. DuBridge said that he talked to Smyth Friday morning (November 7) and he put it to Smyth thus: A number of matters, such as the appointment of the Deputy, have been in suspension because of the uncertainty over Smyth's future since he (Smyth) has said to some people that he can't carry on with this job forever; as a result, people have been asking for the date. DuBridge said there is a little unhappiness in White House circles (Lewis Strauss) that Smyth is a carryover from the previous Administration, and that we should get a new man in there. DuBridge hinted this to Smyth and suggested it might be better for him to set a date when he would like to get out. Smyth mentioned February and June meetings and the September General Conference; he felt the transition should come somewhere between--between the February and June meetings or between the June meeting and the September Conference. Smyth said that April might be a possible time. Smyth thinks matters can be arranged so that, if a successor can be announced moderately soon, Smyth and his replacement can work together for a period; then the new man will take over and Smyth will continue as a consultant.

DuBridge said that he put a little pressure on Smyth to arrive at this understanding; DuBridge said, however, that it wasn't nearly so much pressure as has been put on him. DuBridge then asked me about a replacement. I said that Smyth did a terrific job, due probably to the fact that he is a scientist, which leads me to think that his replacement should be a scientist. I said that Palfrey's name has been suggested, and he is very good, but he would probably have trouble, being a non-scientist. Palfrey would also have trouble with Congress. DuBridge asked whether I thought Jerry Tape would do it. I said I think he would, although I have no real basis for being sure; one advantage is that Tape would be able to be effective from the very first day. DuBridge asked about Tape's political affiliation, and I said he calls himself a Republican. DuBridge said he is willing to go ahead, but I suggested that in view of the fact that what Smyth told me on Thursday is in contradiction to what DuBridge said, it might be worthwhile for me to call Smyth. DuBridge agreed but said that, from their conversation, it is his (DuBridge's) impression that Smyth is willing now to say that he is willing to step out in April if a good successor can be named and certainly not later than August. Smyth told him he looked with some trepidation to going through another September General Conference. He said that Smyth is very enthusiastic about Tape. I said I would let DuBridge know of the results of my call to Smyth. DuBridge said that, if my conversation with Smyth is satisfactory, perhaps we should clear the matter of Tape's nomination with Flanigan and suggested I do so.

I mentioned that there is an NSC meeting today on SALT, and asked whether he would be involved. He said, "No." He said this is a very mysterious business to him. He hasn't been able to get through to NSC channels; he tried politely, and then pretty firmly, without luck. He said that Henry (Kissinger) doesn't think scientists are any use around and that he thinks he has convinced the President to think so too. He said he has tried to work through others (ACDA, Keeny, et. al.) and at least try to get sensible options. (I believe this is a continuing manifestation of the problems we are having with Kissinger and the President in having the viewpoint of scientists expressed in these important negotiations.)

I called Smyth and told him that I spoke with DuBridge. Immediately, Smyth said that DuBridge rather startled him last Friday and asked what DuBridge told me. I said he thought that, in order to be more definite and have things on a surer basis with respect to the appointment of the deputy to the U.S. Representative to the IAEA, and because there had been some uncertainty as to how long Smyth wanted to stay, DuBridge thought that he and Smyth had come to an agreement that Smyth would leave next spring. Smyth said he thought that was the gist of DuBridge's conclusion, but he (Smyth) did not completely accept it. Smyth said his own idea was always just the opposite: get a deputy, who would then carry over as Smyth's successor to give continuity. Smyth said he thought DuBridge agreed that Smyth should have a chance to think about the proper timing, and then he would talk to DuBridge when he comes to Washington again in a couple weeks. He said he has no great inclination to stay on indefinitely but did wish to make the transition at the proper time and in the smoothest way possible. He doesn't think it should be next spring, but rather, probably next summer. I said I would tell DuBridge to wait until he hears from Smyth. He said it was a complete surprise to him that his appointment by the President was always intended as an interim appointment. Smyth said he mentioned his conversation with DuBridge to Zook on a confidential basis.

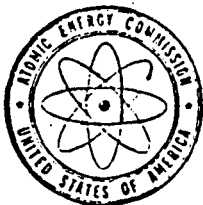
Later in the afternoon I spoke with DuBridge and told him that I reached Smyth, who feels that in their conversation he had a commitment that he would have a couple weeks to think over the timing and that he would be back in touch with him (DuBridge). Lee said he guessed that was right. I said Smyth doesn't feel unfriendly, but he expressed himself as being surprised and shocked that his appointment was considered to be only an interim one and said he was never told that. Lee said that was due to the fact that the rumor got around that he would be leaving. I said he wants to think about the proper timing; he thinks it should be next summer after the June meeting. On the basis of this, Lee and I decided that no further steps will be taken at this time.

At 10:15 a.m. I presided over Information Meeting 964 (notes attached). We discussed the final version of the White House and the AEC press releases announcing the new organization (a directorate within the AEC) to operate the uranium enrichment facilities. There have been many exchanges between the AEC, the JCAE and the White House in order to reach an agreement on these releases. (A copy of each release is attached.)

At 10:30 a.m. I met with Ambassador Karl Gruber (Austria), who was accompanied by Myron Kratzer and William Burke (DIA); Julie Rubin was also present. This was mainly a courtesy call. Ambassador Gruber noted that Austria is having problems, similar to those in the United States, with some of its medical people about the adverse effects from nuclear power.

At 11 a.m. the other Commissioners and I met with the General Advisory Committee. The GAC members present were: Howard Vesper (Chairman), Herbert Friedman, Edwin Goldwasser, Jane Hall, Stephen Lawroski, Norman Ramsey, Lom Squires, William Webster and Melvin Harrison (Scientific Officer). Anthony Tomei (Secretary, GAC) and Bob Hollingsworth were also present. I reported on: (1) my European trip; (2) the arrangements for the forthcoming Fermi Award and the status of the atomic pioneer awards; (3) the status of the FY 1970 and 1971 budgets; (4) pending legislation affecting the AEC including the Gravel Resolution to establish a commission to study international implications of underground weapons tests, the Gravel Bill to study and evaluate air and water pollution of underground uses of nuclear energy for excavation and the Muskie Bill to establish an environmental council and to require AEC to get state approval of thermal effects before licensing nuclear power plants; (5) the Public Information meetings held at Burlington, Vermont; Minneapolis; Brattleboro and Bennington, Vermont; (6) my discussion with Governor LeVander of Minnesota on State regulation of power plant effluents; (7) the JCAE environmental hearings; (8) the litigation related to the RULISON test; (9) waste disposal problems at NRTS; (10) plans for the STURTEVANT test; (11) the finding of practical value problem; and (12) the Rocky Flats fire report.

I hosted a luncheon in the Commission Dining Room for Dr. Thomas Paine (Administrator), Willis Shapley (Associate Deputy Administrator) and Bruce Lundin (Acting Associate Administrator, Office of Advanced Research and Technology) of NASA. Others present were: Commissioners Johnson, Thompson, Larson and Ramey, Bob Hollingsworth, Milton Klein, David Gabriel, John Abbadessa, George Kavanagh and Julie Rubin. We discussed the plans that need to be made for the future use of nuclear power, both as an auxiliary power source in the form of isotopic sources and compact



UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

UNCL. BY DOP
NOV 86

COPY NO. 2
November 10, 1969

INFORMATION MEETING 964

10:15 a.m., Monday, November 10, 1969, Chairman's Conference Room, D. C.

1. November 7 Draft White House Press Release re Uranium Enrichment Facilities

The additional changes in the November 7 draft were noted and the Commissioners requested White House staff be queried re the response to Question 1. (Rubin-AGM-AGMP&P)

W. B. McCool
Secretary

10:40 a.m.

PRESENT:

COMMISSIONERS:

Chairman Seaborg
Commissioner Johnson
Commissioner Thompson
Commissioner Larson

STAFF:

Mr. Hollingsworth
Mr. Brown
Mr. Quinn
Mr. Rubin
Mr. Fremling
Mr. Kull
Mr. McCool

DISTRIBUTION:

Commissioners
General Manager
General Counsel
Secretary

Office of the White House Press Secretary

UNCL. BY DOE
NOV 88THE WHITE HOUSE

The President announced today that he has asked the Atomic Energy Commission to operate its uranium enrichment facilities as a separate organizational entity within the AEC, in a manner which approaches more closely a commercial enterprise. The facilities are located at Oak Ridge, Tennessee; Paducah, Kentucky; and Portsmouth, Ohio.

Although these facilities were originally developed for national defense purposes, national needs for enriched uranium are now largely commercial. Future Government requirements are expected to be relatively small. These facilities are currently operating at about 40% capacity. Commercial demand, however, is expected to rise and eventually require additional capacity.

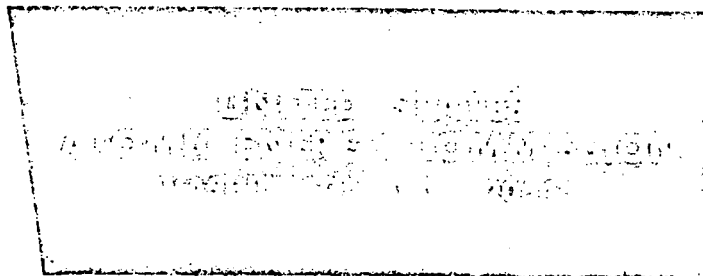
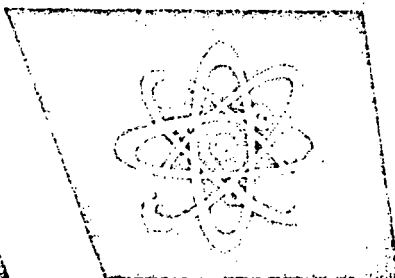
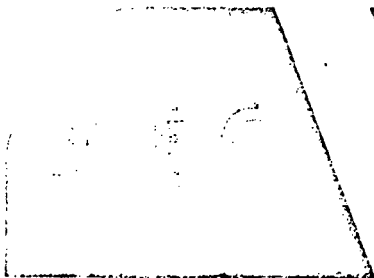
The President's decision is based on his belief that the Federal Government's responsibility for uranium enrichment as the owner-operator of the nation's only enrichment facilities eventually should be ended. He believes that these facilities should be transferred to the private sector, by sale, at such time as various national interests will best be served, including a reasonable return to the Treasury.

Since the optimum time for this transfer will be sometime in the future, the President will not seek legislation at this time to authorize sale of the facilities to private industry. The establishment of a new entity, which will be an AEC Directorate will carry on the businesslike management of plant operations and will establish separate accounts fully reflecting commercial criteria for financial accounting.

So long as the Government is the sole source of enrichment services in this country, the President emphasized that it is essential that we continually assure an adequate supply of enriched uranium for commercial and governmental users and to meet our foreign commitments.

Operations are to be funded by receipts from commercial sales and, as necessary, by annual appropriations. The Atomic Energy Commission has been directed to develop a detailed plan for implementing this decision.

Depending on the timing, sale of these plants could free Federal resources for more pressing national uses. Revenues from sale at an appropriate time would be considerable. In addition, \$2 billion or more is expected to be needed over the next 10-15 years to expand plant capacity to meet increasing commercial demand.



No. M-255
Tel. 973-3335 (Info.)
973-5371 (Copies)

FOR IMMEDIATE RELEASE
(Monday, November 10, 1969)

AEC PROCEEDS TO IMPLEMENT
PRESIDENTIAL DECISION ON URANIUM ENRICHMENT

The Atomic Energy Commission is proceeding to implement the decision of the President that uranium enrichment activities are to be conducted by a separate organizational entity within the AEC in a manner more closely approaching a commercial enterprise.

The decision, announced by the White House today, contemplates that responsibility for uranium enrichment ultimately will be transferred to the private sector at a time and in a manner which will best serve the national interest.

During the interim period, the AEC will continue to supply enriched uranium and uranium enrichment services to domestic and overseas users, including the fulfillment of all existing commitments.

The costs of providing enrichment services have changed since the current price was set. The AEC will in the near future re-examine its charge for enrichment services to determine the extent to which all costs are being covered and whether an adjustment to the charges is indicated. The current charge for enrichment services is set at \$26 per kilogram unit of separative work. A kilogram unit of separative work is the unit used to measure the physical work required to separate the isotopes U-235 and U-238.

(more)

The new entity, which will be an AEC directorate, will maintain separate accounting records and will publish periodic financial reports similar to those of commercial enterprises. Such reports will reflect the financial results of operating the uranium enriching enterprise, and also will provide information needed for financial analysis and investment decisions when the sale of these facilities to the private sector is considered.

The uranium enriching enterprise will be funded with revenues from its sales, supplemented, as necessary, by appropriations through the normal budgetary process. Further information on the new arrangements within the AEC will be made available at the conclusion of studies which are now under way to identify the structure of the entity, its responsibilities, and its relationship to other AEC functions.

Uranium enriching is the only operation in the preparation of fuel for nuclear power reactors that is exclusively a government function. The operation involves the partial separation of the isotope U-235, which will sustain a nuclear chain reaction, from U-238. The work is carried out in large plants at Oak Ridge, Tennessee; Paducah, Kentucky; and Portsmouth, Ohio.

These three gaseous diffusion plants will continue to be operated by private industrial firms under contract to the AEC. The Oak Ridge and Paducah plants are operated by Union Carbide Corporation (Nuclear Division), and the Portsmouth facility is operated by Goodyear Atomic Corporation. The plants were built at an original cost to the government of \$2.3 billion. A program for improving and uprating them would involve a further capital investment of at least \$600 million to meet the growing demands for nuclear power plant fuel.

#

reactors and in the form of power for propulsion in the U.S. space program. Paine said that the 1970's would be a decade of nuclear power in space. He thinks that will be the most important application of nuclear power, and he compares its future role in space to its past decisive role in the revolutionary submarine propulsion. We discussed in particular the need to go forward with the nuclear rocket program (NERVA), the SNAP-8 program for the production of nuclear auxiliary power in the range of 40-50 Kw, the need for a next generation program--most probably the liquid metal cooled reactor (SNAP-50)--to reach the level of 400-500 Kw, and the continued advances needed in isotopic power sources for many missions, such as those to the outer planets where solar power is unavailable; this will require sources at a level of 100 or more watts. The orbiting space ships and laboratories, which will reach capacities of up to 100 men, will need nuclear power as the only available source, and this is true of many other space missions and applications planned for the future.

I talked on the phone to Phil Boyd and John Canaday (University of California regents) regarding the possibility of the imposition of tuition at the University. Boyd said that before next fall there will be an increase in student fees, or tuition, or whatever term might be applied. California is way behind all other state universities in this matter. This creates an interest on the part of taxpayers who are carrying the burden. The next reason for support of this move, and he said he would go along with this, is the need to control the use of these funds, i.e., for financing some capital improvements, increasing financial aid to the needy, etc. He said that a couple years ago fees were increased from \$250 to \$330, but throughout the country it's about \$500. Also, while the students are complaining, still there are a great many sport cars in the University parking lots. I mentioned that I would be in Berkeley on November 20; he said he doesn't believe that this item is on the agenda for the November 19-20 meeting because the regents are not ready to take action on it. He feels that the time has come to increase student fees, but not inordinately so; there has to be a balance. A lot of people blame it on Reagan, but there is a big demand for it on the part of the legislators, who are being pushed by the taxpayers. It is seriously being considered, but it couldn't be put into effect before next October, but definitely before February or March there would have to be an announcement to give the students ample notice.

Canaday has the idea that the die is pretty well cast that there will be an increase in fees. He said that everyone, even President Hitch, and others who were the strongest opponents, are reconciled to the conclusion that it is inevitable.

At 2:15 p.m. I presided over Information Meeting 965 (notes attached). We discussed a markup that we received on the FY 1971 budget, which will be disastrous in its impact on our program. It is, in effect, \$200 million below our basic (i.e., lowest) request and cuts deeply into the civilian reactor program, eliminating all approaches except the Liquid Metal Fast Breeder Reactor, and cutting deeply into the research program. We also discussed further the problem between Shaw and Albaugh at the Pacific Northwest Laboratory in connection with the building of the FTFF. Hollingsworth wanted to write a letter to Albaugh directing him to place Wolf in complete charge. I indicated that this would be no solution to the overall problem, which lies in the present administration



UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

ENCL. BY DC
NOV 86

COPY NO. 3
November 10, 1969

INFORMATION MEETING 965

3:15 p.m., Monday, November 10, 1969, Chairman's Conference Room, D. C.

BOB Mark-up of Fiscal Year 1971 Budget

Discussed and scheduled for further consideration on Thursday,
November 13, 9:30 a.m. (OC-SECY)

November 5 Memorandum from the President re State of the Union
Message

Staff recommendations are requested. (AGM)

November 6 Letter from Dr. Carl Walske re Invitation to Join the MLC
Trip to LRL, LASL, and Sandia Laboratory

Commissioners Johnson and Thompson will plan to accompany the MLC.
(Helfrich-Spurgeon-SECY)

AEC 1318/20 - Proposed Letter to Northern States Power

Approved. (Fremling)

AEC 1309/23 - Execution Data for a Portion of the Mandrel II Events

Approved. Commissioner Thompson will follow these matters.
(AGMMA-SECY)

6. AEC 1130/62 - Test Readiness Program
Approved with changes. (AGMMA)
7. AEC 1297/3 - Proposed Revision of National Disclosure Policy
Deferred: (EAGM)
8. AEC 696/167 - N Reactor: Transfer to Power-Only Operation
Noted. (AGMP&P)
9. AEC 696/168 - BOB Inquiries on NPR
Noted. (AGMP&P)
10. October 31 Memorandum from Dr. English re Plowshare Advisory Committee Membership
Approved. (AGMR&D)
11. AEC 337/69 - Tarapur Award
Approved. (Fremling-AGMIA)
12. AEC 89/175 - Romanian National: Assignment to LRL, Berkeley Under Memorandum on Cooperation
Approved. (AGMIA)
13. AEC 979/85 - French National: Visit to AEC Facilities by Minister for Industrial Development and Scientific Research
Approved. Commissioner Johnson will accompany the Minister.
(AGMIA-Helfrich)
14. AEC 588/85 - FFTF and LMFBR
Discussed and to be rescheduled. (GM)
15. AEC 460/126 - International Symposium on the Packaging and Transportation of Radioactive Materials
Noted. (AGMA)

16. AEC 1230/25 - ACNMS Meeting December 10-11

Noted. (SMM)

17. Press Report of Navy Aircraft Crash off the Coast of Sicily

18. Senate Appropriations Committee Mark-up of the FY 1970 Budget

Commissioners Ramey and Larson will discuss with Senator Pastore and Congressman Evins and staff will consider preparation of a letter to Senator Ellender. (OC-Fremling-Griffin)

19. Designation of Commissioner Larson as Acting Chairman Tomorrow November 11, 1969

(SECY-Griffin)

W. B. McCool
Secretary

7:05 p. m.

PRESENT:

COMMISSIONERS:

Chairman Seaborg
Commissioner Ramey
Commissioner Johnson
Commissioner Thompson
Commissioner Larson

STAFF:

Mr. Hollingsworth
Mr. Hennessey
Mr. Rubin
Mr. Kull
Mr. McCool
Mr. Brown
Mr. Abbadessa*
Mr. Corso*
Mr. Quinn*
Mr. Voigt*
Mr. Kratzer*
Mr. Kavanagh*
Gen. Giller*

DISTRIBUTION:

Commissioners
General Manager
General Counsel
Secretary

*Attendance by Topic (s)

of the Division of Reactor Development. We also learned toward the end of the meeting, which lasted until 7:05 p.m., from Abbadessa, that the Senate markup for our FY 1970 budget is now available, and to our horror, includes a reduction, which was proposed by Senator Ellender, of some \$24 million (in effect) in our operating budget, which Ellender justified as being due to slippage of programs.

I received a letter from Vice President Agnew (copy attached) in which he said that our comments on the Administration's proposed initiatives in marine science have been helpful and that the President has decided to support urgent elements reflected in the five-point program.

Tuesday, November 11, 1969 - Washington - Chicago

Accompanied by Justin Bloom, I flew to Chicago on American Airlines Flight No. 415, leaving at 8:45 a.m. Also traveling on the same plane was Dr. William D. McElroy, the Director of the National Science Foundation, and we were able to chat for a moment or two.

Our arrival in Chicago was delayed by poor ground visibility and we landed at 10:10 a.m. We were met at O'Hare Airport by Ken Dunbar (Manager, Chicago Operations Office) and his driver, George Bobysud. We were taken by car directly to the Chemistry Building at Argonne National Laboratory, where I first met with Joe Katz in his office. Joe called in Mrs. Carol Flaumenhaft, whom he has obtained to help with my project to collect and organize the written documentation of the Met Lab Chemistry Group (1942-1946). I described the status of my own information collection efforts and showed how I am making entries for each day of the four-year period. Joe proposed using a computer to store all the information, but I discouraged this approach for the time being in the interests of economy.

Joe took Justin and me to see Paul Fields, who told us that he has two exciting bits of news. He believes that he has succeeded in making Md^{254} by the bombardment of Es^{253} with alpha particles, and that mass spectrographic analysis of samples from the HUTCH debris sent to him by LRL and LASL gives a preliminary indication that 101^{259} may be present. It will be necessary to determine the degree of ionization of mendelevium before the mass spec data can be conclusively evaluated. Paul is also working on the analysis of lunar rock samples but has nothing novel to report.

We stopped for a moment to say hello to Don Peppard and Irving Sheft in their office and then walked to the Argonne cafeteria.

A special luncheon for attendees at a safeguards workshop had been arranged so that I could address the attendees, most of whom are from foreign countries. I was met by Winston Manning, Shelby Miller, and Manuel Kanter, who acted as toastmaster. Also in the audience were Herb Hyman, Joe Katz, Lynn Hurst, Bruce Cork and Ken Dunbar.

During the luncheon I was called out of the room to take a telephone call from Stan Thompson, who informed me that Strutinsky is in Berkeley with him and is still complaining about not being an invited speaker at the Welch Foundation Conference.



THE VICE PRESIDENT

WASHINGTON

November 7, 1969

The Honorable Glenn T. Seaborg
Chairman
Atomic Energy Commission
Washington, D. C. 20545

Dear Dr. Seaborg:

Your comments on the Administration's proposed initiatives in marine science have indeed been helpful, and I am pleased to report to you the President's decision to support urgent elements reflected in the five-point program.

To provide for effective management and coordination pending completion of the marine organization study, lead agency responsibilities have been assigned. I should, therefore, like to confirm designation of the National Science Foundation as lead agency for the International Decade of Ocean Exploration and for the extension of Arctic research, and the Department of the Interior as lead agency for coastal management and associated coastal laboratories. ESSA has been assigned lead agency responsibility for mapping, charting, geodesy, and data storage, and for environmental observations and predictions. Responsibility for the lake restoration project will be assigned later.

While these assignments are intended to strengthen our Government-wide program, they in no way affect your statutory responsibilities or your responsibility for appropriate budgetary support.

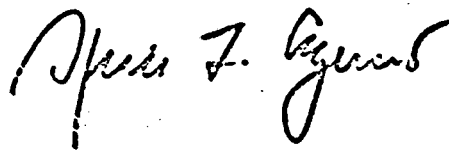
The five initiatives constitute the Administration's priority program for marine science this year. However, the Bureau of the Budget has indicated that the merits for increase or the needs for decrease

page 2

of other agency projects would be considered in the course of the normal budgetary review. Fiscal Year 1971 funding for the proposals outlined in my October 6, 1969, letter will be "new funds," in that they will be above the FY 1970 levels for the program elements described in that letter.

Again, my thanks for your interest in marine science affairs and for your continued support.

Sincerely,

A handwritten signature in cursive script, appearing to read "James F. Lynch". The signature is written in dark ink and is positioned below the typed name "Sincerely,".

Sitting across from me at the head table were three members of the Argonne nuclear safety engineering group, Charles Main, Waldemar B. Seefeldt and John W. Loeding.

I spoke extemporaneously on the importance of the safeguards educational program, with my talk lasting about 20 minutes. After the luncheon, I was met by Bob Duffield at the cafeteria, and he introduced me to Malcolm Lee, who is Duffield's assistant for equal opportunity matters. Duffield then took Justin, Bruce Cork and me in his car to the ZGS area. In the car he said that he wanted to mention two subjects to me privately--his concern about Milt Shaw's management of the reactor development program and his opinion that Shelby Miller is doing an excellent job in handling the Argonne educational program. I told Duff that I am not in a position to take immediate personal action on the Shaw situation, but that I might send a Commissioner to the various laboratories to discuss the matter with the Laboratory Directors, and I requested that Duff give the Commissioner his honest views without mentioning that we had spoken.

At the ZGS we were met by Thomas H. Groves, E. Gale Pewitt, Richard A. Lundy, and Rodney Martin, who escorted us on a tour of the new liquid hydrogen bubble chamber and the booster ring area (now under construction). We then went to the main ZGS building where Richard Sunde and Thomas H. Fields showed us a computer controlled track recognition system for the analysis of photographs taken in spark chambers and bubble chambers. We also stopped briefly at the artificial kidney development laboratory in the same building where Finley W. Markley explained his latest work. Rod Martin explained the operation of the new booster ring injector of the ZGS; as we left the laboratory, we were met by Duffield, who asked me whether there is any chance that Argonne's proposal for the establishment of an environmental laboratory appears to be acceptable. I did not offer him any special encouragement in this respect.

George Bobysud (the AEC driver) took Justin and me to the Palmer House in Chicago, where I stayed in my room (1616W) until 7 p.m. At that time Clarence C. Keller (President, National Electrical Manufacturers Association) met me at the room and escorted me to the Red Lacquer Room on the fourth floor of the hotel, where a small reception for head table guests was in progress. I was also met there by my relatives, Mr. and Mrs. George Lambert, Mr. and Mrs. John Ruttar, and Mrs. Ora Smith. Pictures were taken of me by a Chicago Tribune photographer, showing me with the Prometheus statue that I was to receive later in the evening at the NEMA banquet. The head table guests were: Joseph Miller (Executive Vice President, NEMA), Baron Whiteaker, W. R. Howe, Mr. Sherrill, T. A. Lindsey, J. W. Simpson, Clarence C. Keller, Frank H. Roby, Mr. Ehman, Fred Mills, W. H. Satterfield, W. N. Morton and A.C. Kendell. After dinner three awards were made by the NEMA President, and he then presented me with the Prometheus Award. I delivered my speech, "The Human Side of Energy," which was very well received. Just before dinner I found that my cousin, Mrs. Clifford (Ethel Johnson) Clauss, had joined the other relatives and had brought with her a friend, Mrs. Leonidas D. Marinelli. Also, Mr. and Mrs. Edward Mulligan (Margaret Mulligan is Edrey Smith Albaugh's sister) were at the dinner at a separate table and came up to see me afterwards.

I spent the night in the Palmer House.

Wednesday, November 12, 1969 - Chicago - D.C.

At 6 a.m. George Bobysud picked Justin and me up at the Palmer House and took us to O'Hare Airport, where we departed at 7 a.m. on United Airlines Flight No. 620. We arrived in Washington (National Airport) at 9:45 a.m. Henry Hinds met us and took us to the H Street office.

At 11 a.m. I presided over Information Meeting 966 (notes attached). We decided that we would hold meetings with top management of Gulf General Atomic, Westinghouse and General Electric to discuss with them present views and future planning for their nuclear power programs.

I had lunch in the Commission Dining Room with Julie Rubin, Justin Bloom, Stan Schneider and Bob Davids.

At 2 p.m. Commissioners Ramey, Johnson, Thompson, Larson and I met again with the General Advisory Committee (same GAC attendance as on November 10). Chairman Vesper gave a report on their meeting, and I mentioned to them the grim aspects of the FY 1971 budget markup that we received on Monday.

I sent a letter to A. M. Petrosyants (Chairman, State Committee on Atomic Energy, U.S.S.R.) (copy attached) thanking him again for the fine reception I received in Russia and exploring further the joint experiments in the high energy field that we talked about.

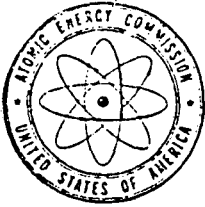
I sent a letter to Chairman Holifield of the JCAE (copy attached) in reply to his of October 24, regarding the possible sale of U.S. computers to the Soviet Union; I also mentioned our plans for collaborative experiments at the Soviet Serpukhov accelerator.

I received a letter from Congressman John E. Moss (Chairman of the Foreign Operations and Government Information Subcommittee of the House Committee on Government Operations) (copy attached) advising that he is considering scheduling hearings with the regulatory commissions or boards in an effort to reaffirm and clarify the basic rights of the Congress to information from its delegate agencies and submitting a list of questions to which he would like answers from the AEC.

Eric, Suki and I took a hike in Rock Creek Park in a driving rain. We started at Oregon and Nebraska Avenues, went along the White Horse Trail and Cross Trails 3 and 4 past the Police Headquarters, and returned to our starting point.

Thursday, November 13, 1969 - D.C.

At 9:30 a.m. I presided over Commission Meeting 2398 (action summary attached). We discussed the markup on the FY 1971 budget (copy attached) and our plans for appeal to the Bureau of the Budget, which is due tomorrow. We decided to appeal \$184 million to include the Molten Salt Reactor, the Light Water Breeder Reactor and operating costs in the Research budget sufficient to bring it up to the level required in our base budget. We also identified \$183 million worth of policy items, including funds for the continued operation of the K reactors at Hanford, the Cascade Improvement Program, Weapons Production, NERVA, the Space Electric Program and Plowshare.



UNCL. BY DOE
NOV 86

UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

COPY NO. 3
November 12, 1969

INFORMATION MEETING 966

11:10 a.m., Wednesday, November 12, 1969, Chairman's Conference Room, D. C.

1. Department of Defense Involvement in the 1971 Paris Air Show
To be checked. (AGMA)
2. Commissioners' Meeting with Gulf General Atomic Week of January 26, 1970
To be scheduled. (SECY)
3. Commissioners' Meeting with General Electric and Westinghouse Officials
To be scheduled. (SECY)
4. Canadian Participation in the 200 BEV Accelerator Project
The Chairman requested senior staff participation in the December 2, 1969, meeting in Chicago. (AGMO)
5. Commissioner Ramey's November 13 Meeting with Senator Aiken
The letter to Senator Aiken is to be signed and delivered today.
(GC-Rubin-Fremling)
6. Oral Report on Status of Senate Appropriation Committee Mark-up of Fiscal Year 1970 Budget
7. AEC 1318/21 - Proposed AEC Membership on New England River Basins Commission

The staff recommendation is approved and consideration is to be given to AEC membership in other Commissions. (AGM)

Information Meeting 966

8. Meeting with Deputy Secretary of Defense Packard re Effect of Fiscal Year 1971 Budget Review on the Weapons Program (To be Scheduled)

9. Commissioners' Meeting with the BOB re FY 1971 Budget Estimates

Requested for the afternoon of November 24 or November 25 or possibly on November 22, 1969. (OC-SECY)

10. Possible Assistance of Dr. Athelstan Spilhaus re "ecological reproduction"

To be checked. (AGM)

11. AEC 1318/22 - UNESCO Environmental Conference, San Francisco, November 23-25, 1969

Appropriate staff action is requested. (AGM)

12. AEC 180/69 - NRTS Radioactive Waste Management Assistance; and AEC 180/70 - CRWM Report

Revisions in the letters to Idaho State officials are requested. (AGMO)

13. AEC 267/107 - Assistance to Predominately Negro Colleges

Approved with Additions. (AGMO)

14. AEC 181/148 - Mitchell Panel Report on P. L. 25-804
(See also AEC 181/149)

Discussed. Commissioners Ramey, Johnson, and Larson will review the Panel recommendations. (GC)

15. AEC 1301/6 - NAS/NRC U. S. National Committee on Rock Mechanics

Noted. (R)

16. Dr. Beck's November 10 Memorandum re Scheduled Meetings with Japanese Officials on Reactor Safety Issues

The Commissioners will meet Commissioner Yamada, JAEC, the morning of December 2, 1969, in San Francisco. (DDR-AGMIA-SECY)

17. Plans for the Commissioners' Meeting with the Japanese AEC,
March 23, 1970, Tokyo

Requested. (AGMIA)

W. B. McCool
Secretary

12:40 p. m.

PRESENT:

COMMISSIONERS:

Chairman Seaborg
Commissioner Ramey
Commissioner Johnson
Commissioner Thompson
Commissioner Larson

STAFF:

Mr. Bloch
Mr. Brown
Mr. Hennessey
Mr. Rubin
Mr. Kull
Mr. McCool
Mr. DiNunno*
Miss Goodwin*
Mr. Kratzer*
Mr. Erlewine*
Mr. Smith*
Mr. Gallo*
Mr. Hiestand*
Mr. Gantt*
Mr. Sammahorn*
Mr. Beck*
Mr. Wells*

DISTRIBUTION:

Commissioners
General Manager
General Counsel
Secretary

*Attendance by Topic (s)



UNITED STATES
ATOMIC ENERGY COMMISSION

WASHINGTON, D.C. 20545

NOV 12 1969

L. BY DOE
NOV 69

Mr. A. M. Petrosyants, Chairman
State Committee on Atomic Energy (GKAE)
Staromonetnii per. 26
Moscow 180, USSR

Dear Mr. Petrosyants:

I would like to extend to you again my sincere thanks for the fine reception which I received during my recent visit to your country. During our conversation you suggested joint experiments in the high energy field. I have given much thought to joint cooperation and I am convinced that such collaboration can provide significant contributions to the mutual interest of our countries.

We have examined the possibility of a number of joint experiments such as γ -e scattering, spark chamber spectrometer and inelastic p-p scattering. As we visualize it, each of these experiments would involve collaboration between our high energy physicists and yours in putting together the experimental packages, checking them out jointly in a U.S. accelerator laboratory and then collaborating in the experiments at Serpukhov.

As you pointed out, joint experiments involving the accelerator at Serpukhov have already been established between Soviet scientists and those of France and CERN. We believe it would be most appropriate for similar arrangements to be made between ourselves taking into account, of course, the difference that neither of these organizations are currently constructing a very high energy accelerator which will be available in the future for joint experiments by scientists of our two countries.

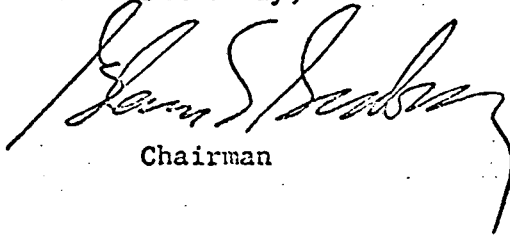
I believe that the terms of the present Memorandum on Cooperation provide the framework for arranging joint experiments at Serpukhov and later at our 200 BEV facility; however, the overall Exchange Agreement expires at the end of this year and we should take steps quickly to assure that the renewed Memorandum provides for such joint experiments. I understand that tentative agreement on a first collaborative experiment has been reached; however, we understand that the schedule for

Mr. A. M. Petrosyants

- 2 -

formulating the operating program for Serpukhov makes it desirable to reach agreement by February 1970 if the first experiment is to proceed on a collaborative basis. If you think it is desirable we would be prepared to have our representatives meet with yours in the near future to discuss these plans in further detail. I believe that such a group should consist of representatives of our Commissions as well as high energy physicists of the institutes involved.

Sincerely,

A handwritten signature in cursive script, appearing to read "Leonid Stepanov".

Chairman



UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

UNCL. BY DOE
NOV 86

NOV 12 1969

Honorable Chet Holifield
Chairman
Joint Committee on Atomic Energy
Congress of the United States

Dear Mr. Holifield:

I would like to thank you for your letter of October 24, 1969, regarding the possible sale of U.S. computers to the Soviet Union. As you will recall, our letter of 23 June 1969 informed the Joint Committee that we were discussing with the Soviets the possibility of U.S. participation in joint experiments on the Serpukhov accelerator and that the Soviets had raised the question of the U.S. furnishing a large computer as a prerequisite for U.S. participation at Serpukhov. The Soviets indicated that they would be willing to accept U.S. controls over the computer to assure us that it was being used solely for high energy physics applications. Our letter also informed you of an application by Control Data Corporation to export a 6400 computer to the Yerevan Institute of Physics in the USSR.

We have carefully reviewed the strategic implications and problems associated with exporting a large computer, such as the CDC 6400 or 6600, to Russia and have reached at this time the same conclusion reached in your Committee Staff report that it would not be in the national interest to export advanced computers such as the CDC 6400 and 6600 to the Soviet Union.

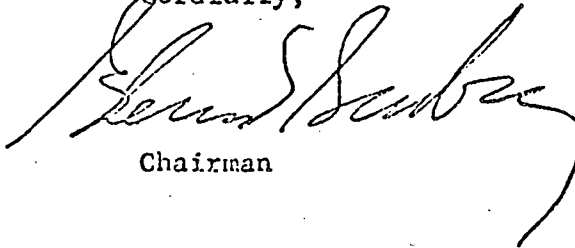
On the other hand, we believe that joint experiments at Serpukhov would be of considerable value and provide a real advantage to U.S. science. This would give us access to the highest energy accelerator now operating. During the interim period before our 200 BEV accelerator becomes operational in 1973 this would provide an important stepping stone. Therefore, we plan to discuss with the Soviets the possibility of joint experiments at Serpukhov without a large U.S. computer being involved, but with the Soviets having reciprocal opportunities to participate in joint experiments of mutual interest at the NAL after it is completed.

As we visualize it, this would involve U.S. and USSR teams setting up experiments at Serpukhov. The U.S. scientists would be accompanied by

some U.S. equipment which is required for the experiments, including a small on-line computer such as the PDP-9 or PDP-10, and which would be returned to the U.S. at the completion of the experiments. A first step would be the assembly in the U.S. of the equipment and joint testing of this collaborative equipment in a U.S. accelerator laboratory.

There is some urgency in reaching a decision on joint experiments since the experimental program at Serpukhov is now being developed and a decision is needed by February 1970 if collaborative experiments are to proceed on schedule. We would be glad to discuss this matter with you or to receive any views that you may have on this matter before initiating discussions with the Soviets.

Cordially,

A handwritten signature in cursive script, appearing to read "Gerald S. Gandy". The signature is written in dark ink and is positioned above the printed name "Chairman".

Chairman

NINETY-FIRST CONGRESS

Congress of the United States
House of Representatives

UNCL. BY DOE
NOV 86

FOREIGN OPERATIONS AND GOVERNMENT INFORMATION SUBCOMMITTEE
OF THE
COMMITTEE ON GOVERNMENT OPERATIONS
RAYBURN HOUSE OFFICE BUILDING, ROOM B371-B
WASHINGTON, D.C. 20515

November 6, 1969

The Honorable Glenn T. Seaborg, Chairman
Atomic Energy Commission
Washington, D. C. 20545

Dear Mr. Chairman:

In view of recent developments, there is a most urgent need to reaffirm and clarify the basic rights of the Congress to information from its delegate agencies.

The Constitution of the United States places responsibility for the regulation of commerce in the Congress itself. Beginning with the creation of the Interstate Commerce Commission in 1887, the Congress determined that new organizations would be required to assist it in discharging its responsibilities under the law. At that time Congress delegated authority to administer. Neither then, nor since then, has any Act of Congress delegated to any agency the responsibility for establishing the basic standards for regulation in the public interest. That remains the duty of the Congress.

As Chairman of the Subcommittee on Foreign Operations and Government Information, I am considering the scheduling of hearings with each of the regulatory commissions or boards -- created for the purpose of carrying out the duties of the Congress imposed by the Commerce Clause of the Constitution -- for a full exploration of their attitudes towards the rights, privileges and responsibilities of the Congress. I would, therefore, appreciate, Mr. Chairman, answers to the following:

1. Does your Commission claim, under any circumstances, the right to withhold facts or information from the Committees of Congress having jurisdiction over your agency under the rules of the respective Houses or the Reorganization Act of 1946?

2. If any such claim is made or has been made, describe the circumstances of the claimed right and cite the specific authorities upon which you rely, including statutes, court decisions, legal opinions, etc.

3. If the claim is based on statute, is the Congress specifically named as being excluded from having access to information regarding your agency's activities?

4. Please state specifically whether your agency recognizes the right of Congressional Committees in exercising oversight over your agency's activities to have access to all facts during the entire course of consideration of matters pending before your agency.

5. If the answer to Number 4 is in the negative,

(a) State the specific conditions which would cause the agency to withhold facts or information from Congress.

(b) Cite specifically and in precise detail the statutes, court decisions, legal opinions, etc. on which the agency relies and relate them specifically to inquiries by Congressional Committees.

(c) Define in detail "adjudicatory" process if a right to withhold is claimed during such process.

6. Describe in detail the process through which your agency makes decisions regarding the availability of information to Congressional Committees.

7. Do you or members of your Commission or Board keep detailed records of ex parte contacts formally or informally made during the time you are considering matters pending before your Commission or which, in all probability will be pending at an early date? Give details.

8. Do you regard inquiries from the appropriate Committees of Congress exercising their responsibility of oversight as constituting "ex parte" contacts?

9. Do you regard your responses concerning access to information by Committees of Congress applicable also to individual Members of Congress? If not, please explain.

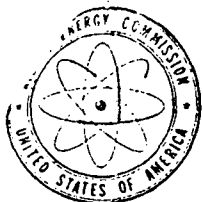
Your very prompt response to these questions is essential. If for any reason you require clarification or feel that delay will be encountered in answering them, please communicate immediately with Mr. Jack Matteson, Professional Staff on Information, Code 180 - Ext. 3741.

Sincerely,


JOHN E. MOSS
Chairman

JEM:j

*Reply attached with
Jan 7, 1970*



UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

COPIED BY DGE
NOV 86

November 13, 1969

Approved _____

EJB

Date _____

E. J. Bloch, Acting General Manager

ACTION SUMMARY OF MEETING 2398, THURSDAY, NOVEMBER 13, 1969, 9:40 A.M.,
ROOM A-410, GERMANTOWN, MARYLAND

SECY:LGH

Commission Business

1. FY 1971 Budget Estimates

The Commission approved budget appeals in the following programs
(see Attachment "A"):

Raw Materials
Production
Weapons
Reactor Development
Physical Research
Biology & Medicine
Training, Education & Information
Isotopes Development
Program Direction & Administration
Revenues

The Commission also requested budget deletions based on Administration policy in Production, Weapons, Reactor Development, and Plowshare be discussed with the BOB. It was agreed that desalting would be changed from a policy to an appeal issue (see Attachment "B"). Staff will contact DOD for the results of discussions regarding weapons systems.

(OC)

2. Fermi Award Ceremony

Discussed. (SECY)

3. Draft Testimony of Commissioner Ramey on Practical Value
(See General Counsel's November 10 Memorandum)

Comments will be addressed to staff. (GC/SECY)

4. Staff Preparation for the Commissioners' Meeting with Congressman Joe E. Evins re the FY 1970 Budget Markup

On 11/13/69
W. B. McCool

W. B. McCool
Secretary

Attachments:

As noted above

cc:

Commissioners.

ATTACHMENT "A"

RECOMMENDED APPEAL ITEMS

<u>PROGRAM & ITEM</u>	<u>COSTS</u>	<u>GSO</u>	<u>PLANT</u>	<u>NOA</u>
		(In Thousands)		
<u>Raw Materials</u>				
U ₃ O ₈ Procurement	\$10,000	-	-	\$10,000
<u>Production</u>				
N Reactor Maintenance	3,300	\$ 1,100	-	4,400
Process Development (classified)	2,000	700	-	2,700
Equipment Test Facility	-	-	\$ 1,925	1,925
Idaho - Contam. Control Impr.	-	-	1,400	1,400
Total Production	5,300	1,800	3,325	10,425
<u>Weapons</u>				
Research and Development	8,200	2,700	-	10,900
Atmospheric Test Readiness	8,500	2,800	-	11,300
Total Weapons	16,700	5,500	-	22,200
<u>Reactor Development</u>				
<i>Desalting</i>	<i>2,000</i>	<i>700</i>	-	<i>2,700</i>
LWBR	12,600	-	-	12,600
LWBR Core Commitments	-	(3,000)	-	(3,000)
Canadian Co-op	300	100	-	400
HTGR	2,000	700	-	2,700
LMFBR	15,000	5,000	-	20,000
Molten Salt	8,000	2,700	-	10,700
LMFBR - Non fund appeal - more than 1 plant	-	-	-	\$60 M TEC
Space Electric				
Zr. Hydride	2,000	700	-	2,700
Compact Converter	1,000	300	-	1,300
General Reactor Tech. Equipment (Civ. Power)	4,000	1,300	-	5,300
EBR II Mods	-	-	4,000	4,000
	-	-	2,000	2,000
Total Reactor Dev.	44,900	7,800	6,000	58,700
	<i>46,900</i>	<i>8,500</i>		<i>61,400</i>
<u>Research</u>				
Operating Costs	16,700	5,600	-	22,300
Berkeley Computer	-	-	8,760	8,760
200 Bev. Accel.	-	-	21,000	21,000
Total Research	16,700	5,600	29,760	52,060

RECOMMENDED APPEAL ITEMS

<u>PROGRAM & ITEM</u>	<u>COSTS</u>	<u>GSO</u> (In Thousands)	<u>PLANT</u>	<u>NOA</u>
<u>Biology & Medicine</u>				
Operating Costs	\$ 3,000	\$ 1,000	-	\$ 4,000
Low Level Alpha Emitter Fac.	-	-	\$ 995	995
Total B&M	3,000	1,000	995	4,995
<u>Training, Educ. & Info</u>				
DNET	2,300	800	-	3,100
DTI				
Environmental Exhibits	900	300	-	1,200
DTIE	600	200	-	800
Total TE&I	3,800	1,300	-	5,100
<u>Isotopes Development</u>				
Artificial Heart	1,250	400	-	1,650
<u>Program Direction & Admin.</u>				
Contract Compliance	1,835	-	-	1,835
Total Programs	<u>103,485</u>	<u>23,350</u>	<u>40,080</u>	<u>166,915</u>
<u>Revenues</u>				
Futures	-	-	-	10,000
SWU Price Incr.	-	-	-	7,500
Total Revenues	-	-	-	<u>17,500</u>
Grand Total NOA.....				\$184,415 187,115

ATTACHMENT "B"

BUDGET DELETIONS BASED ON
ADMINISTRATION POLICY
(In Thousands)

<u>PROGRAM & ITEM</u>	<u>COSTS</u>	<u>GSO</u>	<u>PLANT</u>	<u>NOA</u>
<u>Production</u>				
<u>K Reactors</u>				
Operation	\$ 30,000	\$ 10,000	-	\$ 40,000
Waste Tanks	-	-	\$ 2,000	2,000
Subtotal	<u>30,000</u>	<u>10,000</u>	<u>2,000</u>	<u>42,000</u>
<u>Cascade Improvement</u>				
Operation (Plant Test)	1,500	500	-	2,000
Construction	-	-	60,940	60,940
Subtotal	<u>1,500</u>	<u>500</u>	<u>60,940</u>	<u>62,940</u>
<u>Weapons</u>				
Production & Surveillance	16,000	5,300	-	21,300
STS - Contingency Hole	4,000	1,300	-	5,300
Construction, Project - AFAP, etc. ^{1/}	-	-	7,200	7,200
	<u>20,000</u>	<u>6,600</u>	<u>7,200</u>	<u>33,800</u>
<u>Reactor Development</u>				
Dealtng	3,400	1,200	-	4,600
NERVA	14,000	4,700	-	18,700
<u>Space Electric</u>				
Zr. Hydride	3,000	1,000	-	4,000
Zr. Hydride Rankine	3,000	1,000	-	4,000
Compact Converter	1,000	300	-	1,300
Liquid Metal	650	200	-	850
SEPO Power Contracts	-	900	-	900
Subtotal SEPO	<u>7,650</u>	<u>3,400</u>	<u>-</u>	<u>11,050</u>
<u>Plowshare</u>				
Research and Development	1,600	550	-	2,150
Excavation	6,000	2,000	-	8,000
Grand Total	84,150 56,750	28,950 27,250	<u>70,140</u>	183,240 178,640

1/ Authorization requested \$17.0 million.

AEC FY 1971 BUDGET - OUTLAY BASIS
(In Millions)

	BOB <u>Markup</u>	<u>Appeal</u>		<u>Possible Alternative</u>
		<u>Requested</u>	<u>Tentative</u>	
Raw Materials.....\$	14.0	\$ 10.0	\$ 10.0	\$ 10.0
N Reactor Maintenance....	2.4	3.3	1.5	1.0
Process Dev.-Classified..	6.6	2.0	1.0	-
Equip.Test Fac.(\$1.925)..	0	.4	.4	-
Idaho Contaminated Facility (\$1.4).....	0	.3	.3	.3
LWBR.....	14.0	12.6	10.0	10.0
HTGR.....	2.0	2.0	1.5	1.0
LMFBR.....	75.0	15.0	10.0	10.0
LMFBR (demo plant).....		(non-fund, auth \$60.0)		-
MSBR.....	0	8.0	5.0	5.0
Desalting.....	0	2.0	1.0	1.0
Zirc Hydride.....	5.0	3.0	1.5	1.0
Gen.Reac.Tech.....	45.0	4.0	2.0	-
EBR II Mod. (\$2.0).....	.8	.4	.4	-
Phys. Research - OE.....	278.3	16.7	12.0	12.0
Berkeley Computer (\$8.760).....	0	1.8	1.8	.8
Bio. & Medicine - OE.....	89.5	3.0	2.0	1.9
Dog Kennels (\$995).....	0	.2	.2	-
TE&I.....	13.0	3.8	2.0	1.0
Artificial Heart.....	.5	1.2	.5	-
Sale of U Futures.....	10.0	<u>10.0</u>	<u>10.0</u>	<u>10.0</u>
		99.7	73.1	65.0
Restoration not requested.....		<u>31.3</u>		
		<u>\$131.0</u>	<u>\$ 73.1</u>	<u>\$ 65.0</u>

Office of the Controller
November 18, 1969

I had lunch with Viki Weisskopf, Commissioner Thompson, Paul McDaniel, Bill Wallenmeyer, Enzi Derenzis and Julie Rubin; Herb Kinney joined us later. Weisskopf wanted to talk especially about the recommendation being made by the High Energy Physics Advisory Panel that SLAC be allowed to spend some \$4 or \$5 million in equipment and operating money in FY 1970 and 1971 to build storage rings for clashing beam experiments. We also discussed the relative priorities which we must establish under the possible drastic budget cuts; Weisskopf feels that in such a case priority should be given to projects with innovative potential such as the storage rings at SLAC, the 200 Bev Accelerator and continued operation of SLAC and the Brookhaven AGS.

I called President Charles Hitch (University of California) and told him that, as he suggested, I called some of the regents--Carter, Pauley, Canaday, Boyd, and Forbes--regarding the possibility of imposing tuition. They seem to think, with varying degrees, that tuition is inevitable but that the battle ought to be at the line of making it reasonable. I asked whether this would come up very soon for discussion by the regents. He said it will be discussed at next week's meeting, but it will not yet be voted on. The next step will be to take it up at the Coordinating Council for Higher Education the first week of December, which will be quite a critical meeting. Canaday, Forbes and Hitch are members. He said that Forbes is dead set against tuition and is fighting it hard, but that reaction is atypical, and the only support he will have will be that of Dutton and Roth. I said that, if there is any way I can help or appear at a meeting, I would be glad to do so.

Attached is a copy of the letter I received from Stephen Bull (White House Staff Assistant) telling me that President Nixon has agreed to make the presentation of the "Atomic Pioneer Awards" on Tuesday, November 25, at 11 a.m.

I called Vannevar Bush, James B. Conant and Lieutenant General Leslie R. Groves to tell them that we would like to honor them in recognition of their outstanding work during the War in the field of atomic energy, and this would be done by presenting each of them with the Atomic Pioneer Award. I said the President would make the presentation in the Oval Office at the White House on November 25. They were all delighted and said they would be available at that time for the ceremony.

Dr. Joel Warren of Nova University, who is in town for a few days, called to tell me that Dr. Winstead has resigned as President of Nova effective next June. He said that if I knew of any good scientific candidates he would appreciate my letting him know. They are hoping to find someone by spring.

I received a letter from President Harry Truman (copy attached) thanking me for his copy of Atomic Shield.

At 5:15 p.m. Professor Frederick Reines of the University of California at Irvine called me from Savannah River about some neutrino work he has been doing there.

Friday, November 14, 1969 - Germantown

At 11:22 a.m. I watched on TV the launch of Apollo 12 with astronauts Charles (Pete) Conrad, Jr., Alan L. Bean and Richard F. Gordon. The

THE WHITE HOUSE
WASHINGTON


November 11, 1969

Dear Dr. Seaborg:

The President has reviewed your letter in which you proposed the presentation of the "Atomic Pioneers Award" and has agreed to make this presentation. The initial thoughts are for a private presentation in the President's Oval Office at which the three recipients, yourself, and one or two others would be present. The ceremony is tentatively scheduled for Tuesday, November 25th, at 11:00 a.m. The question of the type of press coverage will have to be resolved.

From the White House end I will be working on the arrangements and planning for this event and would very much appreciate your designating someone from the AEC with whom I might work. In the meantime, we should proceed immediately with our planning for this event and I assume that you will want to notify the award recipients for their planning purposes. Hopefully we can work out the details in the very near future.

Yours truly,


Stephen Bull
Staff Assistant

Honorable Glenn T. Seaborg
Chairman
United States Atomic Energy Commission
Washington, D.C. 20545

UNCL. BY DOE
NOV 86

HARRY S TRUMAN
INDEPENDENCE, MISSOURI

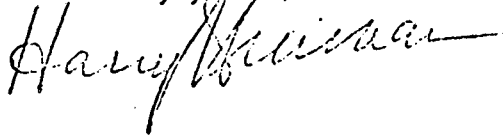
November 5, 1969

Dear Dr. Seaborg:

I was highly pleased to have your letter of October 22, and copy of Atomic Shield, 1947-1952, written by Drs. Richard G. Hewlett and Francis Dean. I am vitally interested in the subject as well as the period, and I have scheduled it for reading forthwith.

Thank you for your continuing interest and my appreciation to Drs. Hewlett and Duncan.

Sincerely yours,

A handwritten signature in cursive script, reading "Harry S. Truman". The signature is written in dark ink and is positioned below the typed name "Harry S. Truman".

Dr. Glenn T. Seaborg
Chairman
U. S. Atomic Energy Commission
Washington, D. C. 20545

spacecraft reported electrical problems during liftoff but overcame them in time to achieve Earth orbit about 118 miles high. What happened is not clear, but since the liftoff occurred during an electrical storm, it was assumed that lightning hit the spacecraft.

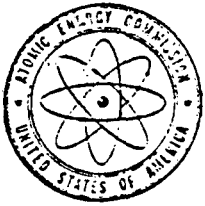
I had lunch in the cafeteria with George Quinn, Frank Baranowski and Julie Rubin. We discussed the impact on plutonium production at Hanford imposed by the impending FY 1971 budget reductions. We also discussed the program with respect to developing a market for CF-252 and various problems in connection with its production. After lunch Rubin and I went for a hike on the Seaborg Trail.

At 2:15 p.m. I presided over Information Meeting 967 (notes attached). We approved the press release report (copy attached) on the May 11, 1969, Rocky Flats fire. We decided not to hold a press conference on this. Tom Pettit of NBC has demanded pictures of the fire and the damaged area, and we may accede to this request. We discussed the results of the meeting held with Carl Walske (held as a result of my telephone conversation with David Packard on November 3) to assess DOD reaction to the slippage of weapons readiness dates that would result from the potential reduction in the FY 1971 weapons budget. (Ed Bloch, Ed Giller and Vic Corso met with Walske, who passed on to them Packard's recommendations on each of the items.)

I called Budget Director Mayo and told him that I will be out of town on Monday when the Commission meets with him on the FY 1971 budget. He said he is aware of this through his staff and that he is very disappointed because he would rather have me present than any of the other Commissioners; however, he has a deadline. He asked me to spend a few minutes on the phone giving him my point of view and emphasizing the items about which I feel strongly.

I said my highest priority would be the research items which involve dozens of university research contracts, our accelerators and laboratories. In another category is the matter of uranium procurement, that is, dropping our procurement, and in a similar category is the matter of the uranium futures. Other items are: the Berkeley computer and the civilian power program. We would hope to get at least some of the latter back so we won't have to completely close out the molten salt and light water breeder reactors. Mayo interjected that he was impressed with Admiral Rickover's presentation on that item last spring. I said another item that is important and not very large, but which could save the government and industry a tremendous amount of money, is the equipment test facility (gas centrifuge); we have had sensational success with it. I mentioned weapons, saying that is a matter between BOB, AEC and DOD. I said that, although I am not pressing for them, I would mention a number of things in the policy area, such as the K reactors at Hanford, the Cascade Improvement Program, NERVA and Plowshare. Mayo said their problem is one of how many alternatives can be funded at this point, and he doesn't know what the answer is. He said he appreciated my call and that he would do everything that he possibly could. I followed my call with a letter to Mayo appealing a number of items in the FY 1971 budget.

I signed the "Amendment to Agreement for Cooperation between the Government of the United States of America and the Government of the Republic of Venezuela Concerning the Civil Uses of Atomic Energy."



UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

COPY NO. 3
November 14, 1969

INFORMATION MEETING 967

2:15 p.m., Friday, November 14, 1969, Room A-458, Germantown Headquarters

1. Commissioners' Meeting with the BOB, 6:00 p.m., Monday, November 17, 1969

Briefing folders will be distributed today for weekend review. (OC)

2. Information Meeting, 5:15 p.m., Monday, November 17, D. C. Office

Scheduled. (SECY)

3. Acting Chairmen for the Week of November 17, 1969

Commissioner Ramey, November 17; Commissioner Thompson, November 18.
Commissioner Larson, November 19, 20, and 21. (SECY)

4. Speech by Senator Baker on Operation of the Diffusion Plants

The Chairman noted the White House request for assistance in preparation.
(AGMP&P)

5. Correspondence to the Public for the President's Signature

The Chairman requested consideration of appropriate draft correspondence
from the AEC. (AGM)

6. Atomic Pioneer Award Ceremony, 11:00 a.m., November 25, 1969, the White House

Noted. Luncheon arrangements will be reviewed. (SECY)

7. November 6 Letter from Congressman Moss re Need to Reaffirm and Clarify the Basic Rights of the Congress to Information from its Delegate Agencies
Staff will prepare a reply. (GC)
8. November 12 Letter from Dr. Hendrie, ACRS, re Reactor Safety Research
Staff review is requested. (AGMR-ADRA)
9. Commissioner Johnson's November 7 Memorandum re Civilian Reactor Program
Noted. (SECY)
10. Senator Gravel's Letter to Mr. John Kelly
In staff review. (BM)
11. Agenda for the Week of November 17, 1969
Approved. (SECY)
12. Commissioners' Schedule, December 1969
Noted. (SECY)
13. Confirmation of May 6, 1971, for AIF Meeting at the Lodge, Williamsburg, Virginia
Confirmed. (SECY)
14. NTS Events (See General Giller's November 13 Memorandum)
Noted. (AGMMA)
15. AEC 783/141 - Comments on S. 2898 re A Council of Health Advisors
Approved. (GC)
16. AEC 783/142 - National Coastal Zone Management Act of 1970: Proposed AEC Comments
Approved. (GC)

17. Senate Bill re Environmental Matters

Noted. (SECY)

18. AEC 344/105 - Press Release on Rocky Flats Fire

Approved with changes and requests. Mr. Bloch reported a press conference will not be held. (PI-Congr.)

19. General Giller's November 4 Memorandum re OSD Decisions Related to FY 1971 AEC Budget

Noted. (AGMMA)

20. Pending Contractual Matters Report No. 334

Noted. (PAR)

21. AEC 1127/17 - Proposed Letter to Maritime Administration re Continuation of Maritime Administration/AEC Liaison Committee

Approved for signature by the Chairman. (Rubin)

22. AEC 639/18 - Planned Layoffs by Union Carbide Corporation at Oak Ridge National Laboratory

Noted. The Congressional delegation is to be informed. (AGMR&D-Congr.)

W. B. McCool
Secretary

4:20 p. m.

PRESENT:

COMMISSIONERS:

Chairman Seaborg
Commissioner Ramey
Commissioner Johnson
Commissioner Thompson
Commissioner Larson

STAFF:

Mr. Bloch
Mr. Hennessey
Mr. Rubin
Mr. Abbadessa
Mr. Kull
Mr. McCool
Mr. Kley*
Mr. Harris*
Mr. Roser*

DISTRIBUTION:

Commissioners
General Manager
General Counsel
Secretary

*Attendance by Topic (s)

REPORT BY THE U.S. ATOMIC ENERGY COMMISSION ON THE MAY 11, 1969
FIRE AT THE ROCKY FLATS PLANT NEAR BOULDER, COLORADO

On May 11, 1969, a major fire occurred at the Rocky Flats (Colorado) Plant of the Atomic Energy Commission (AEC). The Rocky Flats Plant, which produces plutonium parts for nuclear weapons, is located approximately 21 miles northwest of Denver, between Golden and Boulder. The facility is operated for the AEC by the Dow Chemical Company under a contract administered by the Rocky Flats Area Office of the AEC's Albuquerque Operations Office.

The fire occurred in Building 776-777 which is used for manufacturing plutonium parts. This building is a complex facility which has been rearranged and modified repeatedly over the years to meet changing production requirements and schedules. The equipment in Building 776-777 includes various types of machinery operated in "glovebox" systems.

The gloveboxes are under a slight negative pressure with respect to the air in the room around them. Although they are fairly well sealed, air enters the gloveboxes from the room in which they are housed and exits through ducts to filtered systems on the roof. This provides a means for working safely with plutonium while separating the operator from this potentially hazardous radioactive material. Gloveboxes have portholes which are sealed by rubber gloves which workers use to perform operations in the boxes. The gloveboxes used in related system operations are connected by conveyor lines. In turn, the systems are interconnected by other conveyor lines, by which plutonium is transferred from one operation to another. The conveyor lines connecting the gloveboxes are long enclosed tunnels lined with plastic windows. In some areas, thick pieces of either plastic or cellulosic laminate material (made from wood chips) has been placed on the inside or outside of the gloveboxes and conveyor lines as radiation shielding.

The first indication of a fire was an alarm received in the plant's fire station at 2:27 p.m. on May 11 from the heat-sensing system which monitors temperatures at various locations in the glovebox systems in Building 776-777. (The first statement by AEC concerning the fire was issued at about 6:00 p.m., May 11.) Although the fire department responded promptly, the dense smoke, crowded conditions, and presence of large quantities of combustible shielding material made the fire very difficult to fight and extinguish. Because of the concern about the possibility of a nuclear criticality accident (a chain reaction), the standard

(more)

firefighting procedures then in effect for Building 776-777 did not specify the use of water, except as a last resort. For this reason, there was no automatic sprinkler system in this area of the building. The first attack on the fire was made with CO₂ and was ineffective. Less than ten minutes after the fire alarm was received, the fire captain initiated the use of water. Thereafter, water was used almost exclusively in the firefighting activities. No nuclear criticality occurred. The fire was brought under control about 6:40 p.m., but continued to burn or recur in isolated areas throughout the night.

The fire originated within the North Line, moved rapidly through the North-South Overhead Conveyor Line, and subsequently spread through one of the interconnecting conveyors and into the Center Line (Figures). Some plutonium contained in these lines burned, and as the glovebox windows burned out, plutonium oxide was released into the room. (Note: When plutonium metal burns, it converts to the oxide form from which it can again be converted to metal without significant loss of material.) Because of the extensive plutonium contamination and smoke, all personnel entering the area during the fire were required to use self-contained breathing air systems which severely limited both access to, and time in, the fire area. There were no lost-time injuries from the fire or the firefighting, although one firefighter inhaled some plutonium most of which was quickly eliminated following treatment. (This was reported in AEC's second public statement issued at 10:30 a.m., May 12.)

A small portion of the 600 tons of radiation shielding material surrounding the gloveboxes and conveyor lines was ignited during the fire. The heroic efforts of the well trained firefighters successfully stopped the spread of fire to the shielding material.

The damage to Building 776-777 and its equipment was extensive. In addition to the actual fire and smoke damage, the building was heavily contaminated internally with plutonium. Substantial parts of the utility systems within the building were severely damaged. Some of the interconnected buildings sustained minor interior contamination. The fire did not breach the building roof, but slight exterior contamination was measured on the roof of Building 776 and an adjoining building, apparently due to a minor failure of a filter. Plutonium also was tracked out of Building 776 by the firefighters and was detectable on the ground around the building. There is no evidence that plutonium was carried

beyond the plant boundaries. (See public announcement of May 13.) The present estimate of the financial loss for the damage to buildings and equipment, including cost of decontamination, is \$45,000,000. The estimate does not include the cost of the plutonium recovery. The value of the plutonium which will not be economically recoverable will be small.

The available evidence indicates that the fire originated on the lower shelf of the storage cabinet in Glovebox 134-24 (Figure) in the North Line. Plutonium briquettes (discs three inches in diameter and one inch thick of either pressed scrap metal or lathe turnings) and some loose scrap metal were stored in uncovered cans in the storage cabinet. The exact cause of ignition is unknown; however, plutonium in the form of chips or lathe turnings is a pyrophoric material. The heat from the burning plutonium metal evidently caused the storage cabinet, which was constructed mostly of cellulosic laminate material and plastic, to char and generate flammable gases which could have been ignited by burning plutonium. The heat of the burning gases could ignite other briquettes and initiate a slow burning of the storage cabinet materials, particularly in the cracks between the joined sections of the cellulosic materials.

The smoke in the exhaust system of the North Line gradually clogged the filters. Flames erupted on the outer surfaces of the cabinet and spread to the combustible gloves and plastic windows on Glovebox 134-24. Up to this time, the fire was still undetected by the few people who were in the building that day because the smoke, flames, and heat were contained within the glovebox system. Since the heat detectors were located outside and under Glovebox 134-24 and were insulated by the floor of the storage cabinet, they were incapable of sensing the fire. (Similar detectors elsewhere in the glovebox system subsequently did function, and the alarm was sounded.)

Once the plastic windows of Glovebox 134-24 were breached, the inrushing air fanned the fire and caused it to spread into the North Conveyor Line and the gloveboxes east of Glovebox 134-24.

The airflow in the North Conveyor Line normally goes from east to west. However, because of the clogged filters, the airflow in the Line reversed and followed the second ventilation system which is part of the North-South Overhead Conveyor

(more)

Line and the Center Line. When the fire reached the North-South Line, it turned south because of two factors, a closed metal door in the North Line and the direction of the airflow. On reaching the Center Line, the fire again went east because of the airflow.

Findings

1. With the evidence now available, the AEC has no basis for concluding that the fire was set intentionally.

2. The plastic windows contributed heavily to the spread of the fire and the extent of the loss. These windows, a major structural part of the containment system, provided a fuel surface on the inside of the glovebox-conveyor systems. Continued operation of the glovebox ventilation systems provided a supply of air to support the combustion. Under these conditions, burning of the windows and plutonium would have resulted essentially in the same loss as was experienced even if no other combustible materials had been present.

3. Less than one percent of the total of almost 600 tons of combustible radiation shielding was consumed in the fire.

4. The long interconnected conveyor system without physical barriers provided a path for the fire to spread. The closed metal door in the North Line demonstrated the effectiveness of even a simple firebreak in the Line.

5. The storage of plutonium briquettes in cans without lids provided potential ignition sources.

6. Without the plastic and cellulosic laminate cabinet in Glovebox 134-24, it is unlikely that a plutonium briquette burning in an open metal container would have ignited the plastic windows.

7. The addition of the storage cabinet, which nullified the heat-sensing system in Glovebox 134-24, prevented an earlier warning of fire.

Conclusions

1. Facilities such as Building 776-777 require a higher standard of fire protection than previously provided.

(more)

2. More needs to be known about the spontaneous ignition and burning properties of plutonium.

3. For plutonium operations involving interconnecting glovebox systems, the following should be considered:

- a. means for detecting fire within the system,
- b. Means for automatic suppression of fire within the system (an alternative is to use an oxygen-deficient atmosphere),
- c. means of isolating fire to small areas within the system, and
- d. A design providing for safe containment of burning plutonium.

4. In view of the successful use of water in combating the fire, automatic sprinklers should be provided in the operating area of Building 776-777. However, further research is necessary before one can assume that sprinklers should be provided in all plutonium operating areas.

Action Taken by AEC Subsequent to the Rocky Flats Fire

1. The findings and recommendations are being applied by the Commission in the construction of new facilities at Rocky Flats. Concurrently, a review is being made of all existing facilities at the plant.

2. The AEC has directed its field offices and contractors to reexamine major fire risks and to improve fire protection throughout AEC facilities.

3. The AEC has initiated an in-depth survey of all major weapons manufacturing plants by two consultant companies (Factory Insurance Association and Factory Mutual Research Corporation).

4. A reevaluation is being made of the organizational arrangements of the operating contractors for assuring fire safety both in facility design and operating practices.

5. The AEC will carry out a research and development program to provide more precise data on burning of plutonium and of radiation shielding materials and on the effect of water on burning plutonium.

(more)

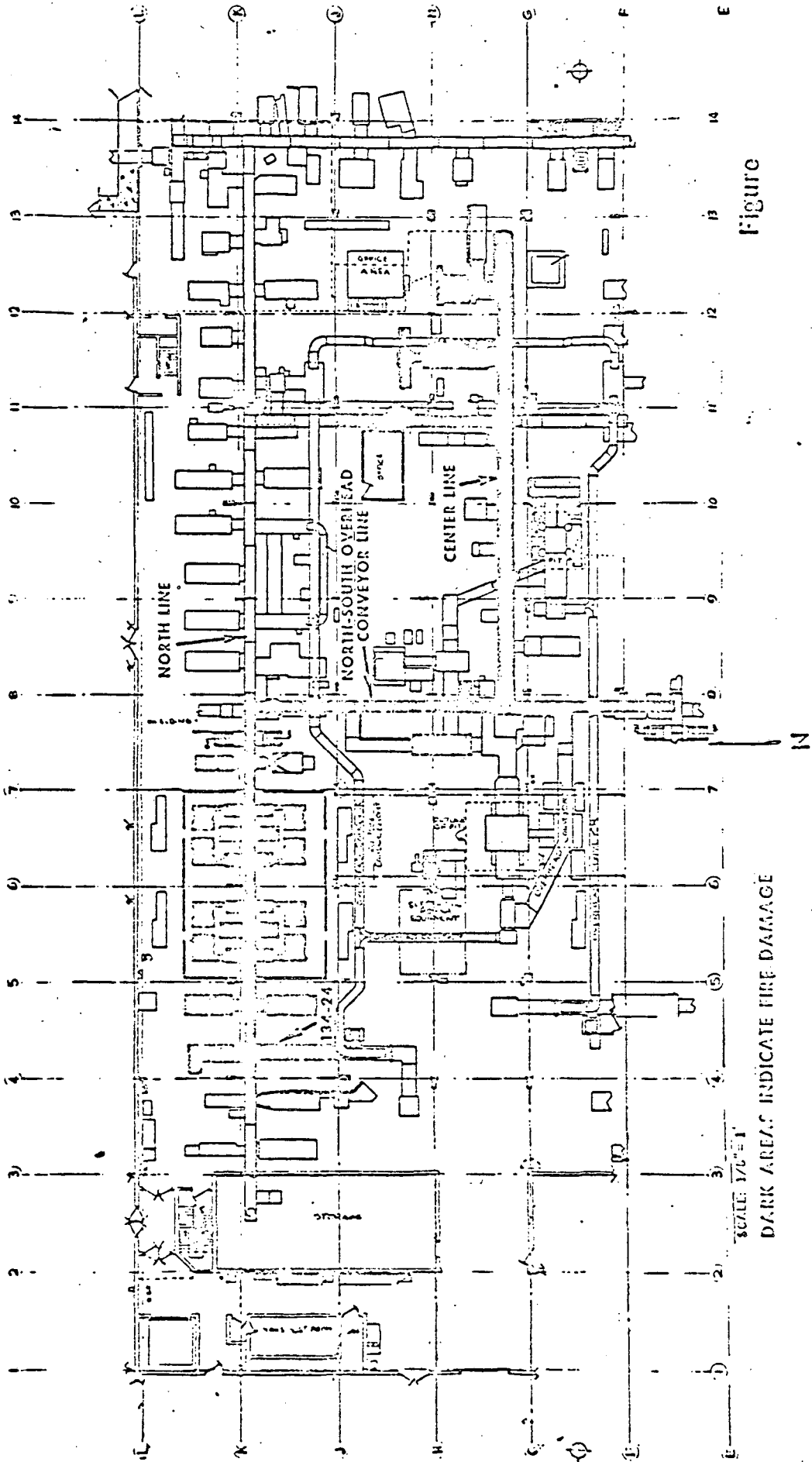
Status Report on Current Plant Situation

1. Recovery and cleanup efforts in Building 776-777 have been remarkably effective and will be important in offsetting the effect of the fire on production schedules. Contractor management and employees have worked with great ingenuity and perseverance to clean up and decontaminate major portions of the building and to restore production capability there.

2. Decontamination, cleanup, and installation of equipment in the fire-damaged building have made possible the resumption of developmental production, even though not yet full scale. This is a significant step toward getting plant operations back fully on stream. About 80 percent of the 211,000 square foot structure has now been decontaminated.

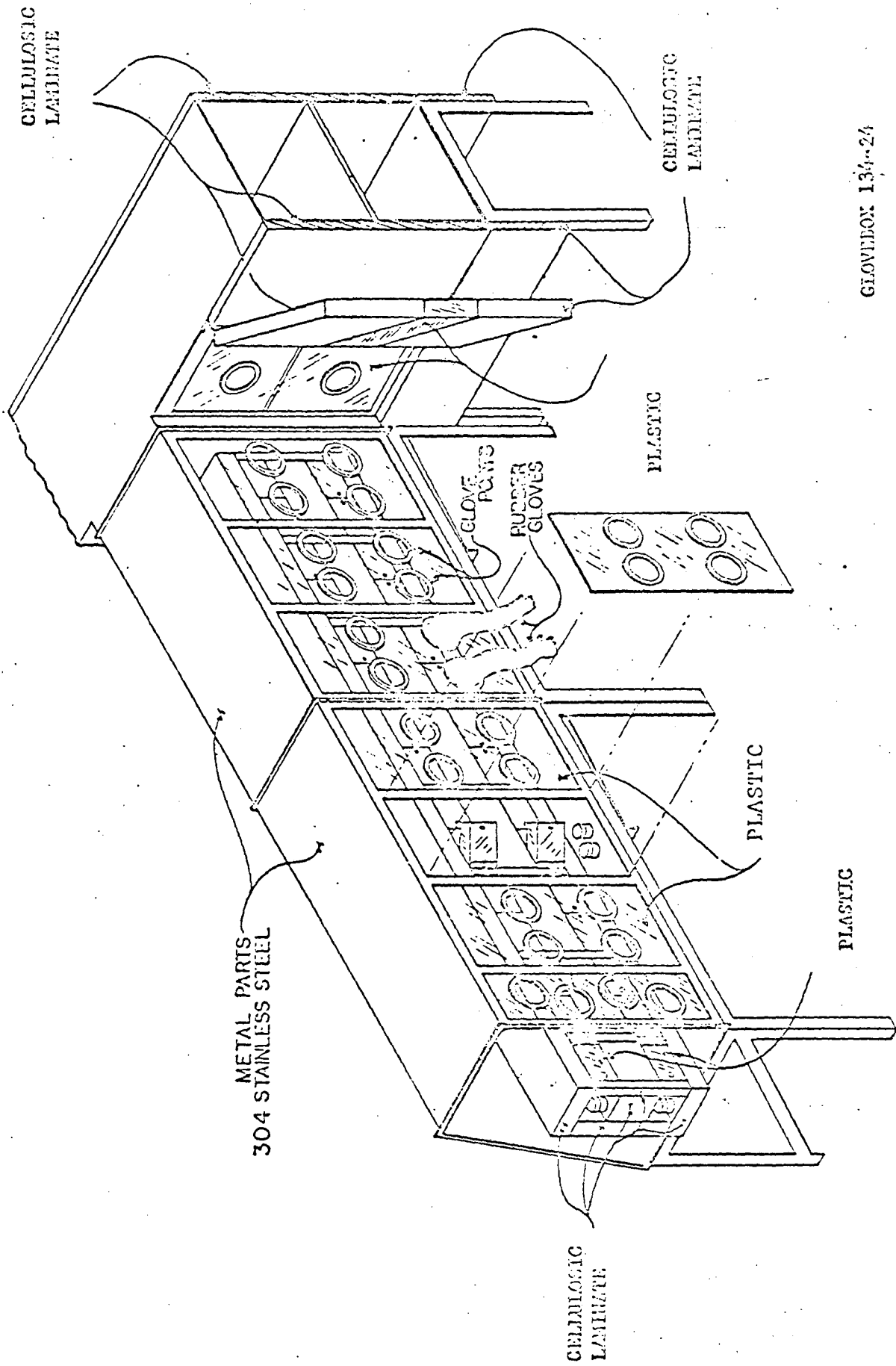
3. More than 99 percent of the plutonium that was in the building before the fire has been retrieved. Eventually, the AEC expects to reuse essentially all of this plutonium. The balance is combined with other fire debris and will be handled routinely as is other waste material.

**BUILDING 776
FIRE DAMAGE**



Figure

UNCL. BY DOE
NOV 86



GLOVEBOX 134-24

UNCL. BY DOE
NOV 86

I called Howard L. Coppenbarger (Editorial Writer, Washington Daily News) to express my appreciation for the fine editorial ("Safe, Clean, Plentiful Power," Washington News, November 11, 1969; copy attached), for which, according to my understanding, he was responsible. He was very pleased that I saw the editorial and liked it, and he hoped it fits in with what AEC is doing. I said it was very balanced, and the type of report we don't always get these days.

I received the report on the 110th GAC meeting held in Washington November 10-12 (copy attached).

I received a letter from Brice O'Brien (General Counsel, National Coal Association) (copy attached) complimenting me on the speech I gave at the National Electrical Manufacturers Association meeting in Chicago on November 11, "The Human Side of Energy." He said he thought I was trying to give the public an honest picture of the future, and he hoped I would see fit to stay in my present position for a long time to come.

I wrote to Peter once again to tell him what calls I've made about the tuition issue.

Brendan Canary had dinner with us and spent the night as Dianne's guest. We had a birthday dinner for Eric and gave him a Canadian Hockey game as a gift.

Saturday, November 15, 1969 - Germantown - Houston, Texas

I worked in our Germantown office this morning because of the Moratorium activities in Washington.

Eric's friend, Joe Canary, came over in the afternoon; he and his sister Brendan had dinner at our house and spent the night with us.

I took a hike with Suki in Rock Creek Park, starting at Oregon and Nebraska Avenues, going north on the White Horse Trail to Rose Road, back to Cross Trail 2 to the Black Horse Trail to Cross Trails 3 and 4 and back to our starting point.

I flew from Baltimore on Delta Flight No. 977, leaving at 6:45 p.m. and arriving at 8:40 p.m. at the new International Airport on the north side of Houston. (This is the first time I arrived at this new airport which opened last summer.) I nearly missed the plane in Baltimore because of the heavy traffic caused by people returning home after the Moratorium activities.

Mr. W. Doherty met me at the airport and drove me to the Rice Hotel. Here I met Justin Bloom who had flown to Houston from Orlando, Florida, yesterday, following his viewing of the Apollo 12 launch at Cape Kennedy.

I spent the night at the Rice Hotel (Room 1622).

Sunday, November 16, 1969 - Houston

After breakfast in my room I went to the Welch Foundation Headquarters on the 20th floor of the Southwest Bank building to attend the all-day

Safe, clean, plentiful power

CONSIDERING the giant strides made by the United States in applying our nuclear knowledge to the enrichment of mankind, it is surprising that so large a segment of the public persists in unfounded fears generated by the word "atomic."

Dr. Glenn T. Seaborg, chairman of the U.S. Atomic Energy Commission, is a quiet, mild-mannered man. He is a Nobel prize winner and recipient of literally countless other awards for his role in harnessing nuclear power for the benefit of humanity, as against its destruction.

But he was upset by those public officials and private citizens who, he said, engage in "unsubstantiated fear-mongering" and "hysteria" in opposing establishment of nuclear power plants.

In response to charges that nuclear plants spill dangerous radiation into the rivers and air, he declared:

"The environmental problems associated with nuclear energy are manageable. With good planning and work, we can have safe, clean and reliable nuclear power, as much of it as we will need."

We hope his words will be heeded. We need only recall the massive power failures of a few years ago, and the recurring overloads of our inadequate power supplies to make Dr. Seaborg's words meaningful:

"Today's outcries about the environ-

ment will be nothing compared to cries of angry citizens who find power failures due to lack of sufficient generating capacity have plunged them into prolonged blackouts — not mere minutes but hours, perhaps days — when their health and well-being and that of their families may be seriously endangered."

There are now 15 nuclear power plants in operation, from New England to California. These plants have been operating for several years and have had no problems. They must conform with rigid standards in regard to radiation and must meet the requirements also of local environmental regulations adapted largely from the Federal Water Pollution Control Act.

An awareness of the hazards and the need for inspection is vitally necessary. But overcautiousness and hysteria, to the extent that it impedes establishment of nuclear power plants, is foolish.

The Nuclear Age is inevitable; it should be encouraged — expedited. Our lives depend more and more upon the electricity that it can provide.

GENERAL ADVISORY COMMITTEE
TO THE
U.S. ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

November 12, 1969

Dr. Glenn T. Seaborg, Chairman
U. S. Atomic Energy Commission
Washington, D. C.

Dear Glenn:

The 110th Meeting of the General Advisory Committee was held at the H Street offices of the Atomic Energy Commission on November 10, 11 and 12, 1969. All members of the Committee (except one) were in attendance for the entire period. The Committee members are John C. Bugher (absent), Herbert Friedman, Edwin L. Goldwasser, Jane H. Hall, Stephen Lawroski, Norman F. Ramsey, Lombard Squires, William Webster, and Howard G. Vesper, chairman. The scientific officer, Melvin A. Harrison, also attended.

We were pleased to receive all Commissioners and the General Manager for discussions at this meeting, and to learn from you that Clarence E. Larson has been designated the Commissioner who will effect liaison with the Committee on behalf of the Commission.

Our recommendations, comments, and actions relative to this meeting are summarized below:

1. Controlled Thermonuclear Research

Dr. Amasa Bishop and several associates reported on the great progress being made in controlled thermonuclear power programs in the U.S., Europe and Russia. After a period of almost no significant breakthroughs, from 1956-65, the last few years have produced remarkable increases in confinement time. Most spectacular has been the performance of Tokamak devices in the U. S. S. R. Tokamak-3 is about 5 times better than Scylla IV measured in $N\tau$ (ion density x confinement time) although Scylla ion temperature is ten times as great. Tokamak-10, now

under development, is expected to produce a confinement time of 0.5 sec at a density of 10^{14} and 3 kev ion temperature. This performance closely approaches that believed to be required of a fusion reactor. Several lines of further development are being pursued in the U.S. program. Scyllac, a 5-meter linear device, is a logical next step forward in the Los Alamos theta pinch experiments. A rapid conversion of the Princeton Model C Stellarator into a T-3 device is underway. ORMAK, being constructed at Oak Ridge, is a relatively simple Tokamak device suitable for studies of scaling properties. Other noteworthy efforts include the 2X program at Livermore, the Octopole II at Gulf General Atomic and the Spheratron and Levatron devices.

The Committee views these recent developments as major breakthroughs that place the prospects for practical development of a CTR in an entirely new perspective. We note with satisfaction that despite budget restrictions the AEC has maintained the level of support with progressive increments over the past few years. To the extent that present tight budgets permit, we believe that continued efforts should be made to improve support in this field.

Progress on the basic confinement problem is sufficiently encouraging to justify conceptual studies of large-scale fusion reactors at ORNL. The Committee is impressed with the promise of these studies and encourages continuing support.

Dr. Bernard Eastlund completed the fusion power report with a discussion of laser ignition of D-T pellets in various containment devices. Especially interesting was a proposed unit consisting of a D-T pellet within a liquid lithium wall, with hot lithium being pumped out. Practical devices will require higher powered lasers than are presently available, but progress in laser development is very rapid. Dr. Eastlund concluded with a description of a "fusion torch" concept capable of providing a flux of 10^9 w/cm² and its possible application to waste disposal -- 22,000 tons of waste per day. An extreme ultraviolet flux in the megawatt range is theoretically possible. Dr. Eastlund suggested applications to desalting and ozone production. The Committee believes that these concepts of high-powered laser forms of fusion devices are provocative and interesting.

We learned with regret that Dr. Bishop is leaving the program, and feel that his leadership has been an important factor in the fine progress made during the past several years.

2. Environmental Effects

The Commission's programs related to environmental problems and safety were reviewed for the Committee by Mr. Howard Brown and associates. The traditional AEC research programs on the effects of radioactivity on humans, on the biosphere and on all facets of the environment seem to be well conceived and have an appropriate interplay with reactor development and regulatory activities of the Commission.

The Committee is pleased that the Commission is giving increased attention to the important problem of thermal effects of nuclear power installations. We hope this will continue to receive a high priority even though the Commission has no direct legal responsibility for the regulation of thermal effects.

Public concern for the integrity of the environment is quite properly on the increase and will remain so for many years to come. In such a situation there are bound to be those who will exploit the public concern taking extreme positions that may be untenable in the long run but which can have serious short range effects.

The Committee has a strong conviction that the use of nuclear fuel as an energy source provides a technology which may produce minimum deleterious effects on the environment. We believe that regardless of where the official responsibility may rest, the Commission should play an aggressive role in determining whether a particular reactor siting connotes thermal "enrichment" or thermal "pollution" of the environment. We also recommend that the Commission undertake an expanded public relations and educational role in this area. These activities should continue with closest possible coordination with research activities of other federal agencies and we endorse the planned expansion of the AEC research program.

We also recommend that in the relative evaluation of possible future reactor systems, the Commission should continue to be strongly influenced by consideration of environmental effects.

3. Reactor Development

The Committee received informative briefings on two reactor programs.

Mr. Milton Klein of the Space Nuclear Systems Division described the program for both nuclear rockets and radioisotope thermo-electric generators with particular reference to their application in the post-Apollo space program. It was gratifying to learn that at this time of the resurgence of interest in nuclear devices for space use the extensive background work that has been done over the years has put the AEC in a position to fit so well into the indicated space requirements.

Mr. Milton Shaw of the Reactor Development and Technology Division outlined the situation on nuclear power reactors. He explained that for the light water reactors the problems were increasingly those concerned with questions of siting and involved the regulatory side of the Commission more than the RDT Division.

He stated that with the stringency on funds the question of assigning priorities assumed increased importance. Progress on the High Temperature Gas Reactor and the Light Water Breeder is apparently proceeding on schedule.

He described the LMFBR situation as consisting of "some accomplishments -- some disappointments". The general progress on fuel is good and the EBR-II has reached 62 1/2 Mw. On the other hand, the FFTF was characterized as "slow and disappointing". He also felt that there was too little progress on components and not enough industrial participation.

All in all we gathered an impression of difficulties resulting from assorted opposition and from budgetary tightness, complicated by the inevitable difficulties and growing pains that go with the launching of so many new plants at one time by companies without prior experience.

4. Safeguards and Materials Management

Gen. Delmar Crowson reviewed the Nuclear Materials Management program of the AEC as related to domestic control of licensee operations. Among the many current problems the two most immediate are (a) lack of accuracy in measurements of fissionable material content in process streams and scrap, and (b) possible loss of control of material in transportation. Good progress is being made in measurement techniques, both

passive and active, through support of varied research programs. Co-operation with the transportation industry is being developed through a series of meetings between transportation representatives and AEC personnel. The possibilities for large-scale diversion during domestic transport of SS materials appear to the Committee to be of utmost concern in future operations.

The Committee also noted that serious efforts are being made to not impose undue restrictions upon the utilities and related industries. Continued discussions with the AIF should result in better understanding of mutual problems.

We were pleased to note the progress which the OSMM has made during the past year with rather modest funds. The technical ability that has been developed to measure the fissile content of fuel rods (and scrap) is very impressive as evidenced by the recent SEFOR experience. The progression in funding noted in the proposed budgets should allow continued orderly development of the major programs and it is hoped that adequate support can be maintained.

Mr. Myron Kratzer discussed the relationship between the NPT and the operations of the IAEA. In this context, the Committee observed that good measurements may be very critical in the foreign market in order to prevent gradual diversions. Recent foreign developments in centrifuge technology may aggravate the problems associated with control of fissionable materials abroad because of possible insistence by centrifuge operators to allow only perimeter surveillance.

The Committee observed that the EURATOM/IAEA/AEC problem is still present but understands that some progress is being made in obtaining ratification of the NPT by some of the more reluctant countries. The offer by the U. S. to be partially placed under IAEA safeguards has been a distinct positive factor in the acceptance of the IAEA system.

5. Uranium Enrichment

Gaseous Diffusion Plant Operations

The Committee was briefed on the White House announcement on future plans for the operation of the gaseous diffusion plants.

Gas Centrifuge Program

We were pleased to learn from Mr. George Quinn about the remarkable progress that has been achieved in the Commission's gas centrifuge development program. The new advancements have come from the excellent combination of theoretical and experimental work. The Committee is very interested in the tentative cost projections which show that gas centrifuge plants may have real potential to become fully competitive with large gaseous diffusion plants for uranium enrichment.

The major uncertainties in the assumptions made in the projected separative work costs were stated to be the performance, reliability, and unit cost of the mass-produced centrifuge. Therefore, we support strongly the Commission's present plans to resolve these uncertainties by the development, construction and operation of an Experimental Test Facility (ETF) and a pilot Mass Production Demonstration (MPD). We urge that both of these projects be completed as expeditiously as possible. It is very important that experience and results from these facilities be available in time to provide a firm basis for options between gaseous diffusion and gas centrifuge processes when the design and construction of additional enrichment capabilities need to be started, now estimated at about the mid-1970's. This work will also be essential to evaluate the potentials in foreign country centrifuge activities.

6. Anti-Ballistic Missile Program

Gen. A. D. Starbird and his associates provided the GAC with a thoughtful and thought-provoking review of the ABM with particular emphasis on the problems of radar blackout caused both by ABM detonations and by precursor nuclear explosions deliberately detonated by the enemy to produce blackout. Much is being done in the selection of frequencies, in the nature of the defense including the choice of detonation altitudes, in the selection of radar sites, etc. to diminish the seriousness of radar blackout. However, this problem is intrinsically severe and it is difficult to provide a high confidence defense against an attack by a large number of missiles using unknown countermeasures and blackout techniques. We note that a future development which should

diminish the severity of the blackout problem is the more maneuverable Improved Spartan. Since the Improved Spartan uses a less powerful warhead, the underground testing of these warheads will present a far less severe problem to the AEC.

7. Reactors Subcommittee Review

The Reactors Subcommittee continued its review of advanced reactor programs with visits to the Bettis Laboratory on August 27, 1969, and to the Sheridan Park facilities of Atomic Energy of Canada Limited and the Pickering Station of the Hydro Electric Commission of Ontario, both in Toronto, on October 30 and 31. In addition, consultations were held with the Reactor Assessment Panel of the Edison Electric Institute and with management officials of Consolidated Edison Company and the Power Systems Division of Westinghouse Electric Corporation.

Personnel of the Naval Reactors Division and the Bettis Laboratory briefed the Subcommittee on the status of the Light Water Breeder concept including the demonstration to be made in the modified Shippingport reactor, scheduled for 1974.

The Subcommittee was favorably impressed with the thorough attention, characteristic of the naval reactor program, being given to the design, development and planned manufacture of the LWB demonstration core and related hardware. Attainment of the objectives of the demonstration program would appear to have a high probability of success.

The Canadians have made a massive financial commitment to heavy water power reactors. The 2000 Mwe four-reactor Pickering Station is in mid-construction with startup of the first reactor scheduled for 1971 with station completion due in 1974. Construction has just started on the essentially similar 3000 Mwe Bruce Station with completion of the four reactors due in the 1976-1979 period. The investment in these committed projects is over 1.5 billion dollars. The extent of the commitment is further emphasized by the fact that these two stations are based largely on the design of the 200 Mwe Douglas Point demonstration plant which has encountered serious difficulties and delays in startup and operation due principally to deficiencies in component quality or design.

It is apparent, however, that the development and design groups of AECL and the construction and operating groups of Ontario Hydro are skilled, competent and experienced, and have the resources and flexibility to correct mistakes and deficiencies. There is no reason to believe that the most critical element in the CANDU reactor design, i.e., the on-line refueling machines, cannot be perfected so that the operation of the two power plants will go forward.

From the developmental point of view, the Canadians have recently made substantial progress toward solution of the two principal problems confronting the heavy-water-moderated organic-cooled reactor concept, namely, elimination of fouling of heat transfer surfaces by degradation products of the organic coolant and demonstration that Zircalloy is a satisfactory material for fuel cladding and reactor pressure tubes. These developments should substantially increase interest in this attractive reactor concept.

The Subcommittee was disappointed to learn that the AEC liaison office at Chalk River is scheduled to be discontinued. In view of the continuing progress being made in the Canadian reactor program, the Committee believes it would be unfortunate to lose the vital role that the liaison office has played in promoting effective communication between U.S. and Canadian reactor development programs. We hope this decision can be reconsidered.

The report covering the Subcommittee's study together with its conclusions and recommendations will be submitted for consideration by the GAC at its February meeting.

8. Tactical Nuclear Weapons Symposium

Dr. Jane Hall reported on the Weapons Symposium recently held at Los Alamos. The Symposium, though well attended by AEC and DOD personnel, did not result in conclusions that would put an immediate demand on AEC design, test, and production capabilities. Apparently, the fear of escalating a local tactical war results in political restraints that preclude any serious planning.

9. Fermi Award for 1970

In accordance with the GAC schedule for soliciting nominations for the Fermi Award and our discussion of November 10th, we will distribute the usual letters to our mailing list early in January.

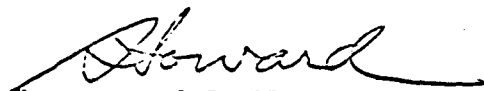
10. 111th GAC Meeting

The next meeting of the Committee is scheduled to be held at the Savannah River Plant on February 25, 26 and 27. Principal agenda topics now specified are as follows: (a) Savannah River Plant program for approximately 1 1/2 days to include discussions of the production reactors, tritium production and packing, gas centrifuge separation of plutonium isotopes, heavy water production, production of californium and hi-flux reactor operation; (b) selections for Lawrence Award for 1970.

11. 112th GAC Meeting

The next following GAC meeting is scheduled to be held in Washington, D. C., tentatively on May 4, 5, 6, 1970.

Sincerely,



Howard G. Vesper
Chairman



L. BY
NOV 86

NATIONAL COAL ASSOCIATION

Coal Building | 1130 Seventeenth Street, Northwest | Washington, D. C. 20036 | NAional 8-4322

November 13, 1969

BRICE O'BRIEN
General Counsel

Dr. Glenn T. Seaborg
3825 Harrison Street, N. W.
Washington, D. C.

Dear Dr. Seaborg:

I am writing you at your home, instead of your office, because this is a "person to person" communication instead of a "business" communication. I have just finished reading your speech to the National Electrical Manufacturers Association entitled "The Human Side of Energy."

If I had written the speech, there are some things I would have added -- from the standpoint of coal -- such as the belief which I hold that the major benefits of atom power may take some years for achievement. Further, that perhaps some of the policies being pursued by our Government should be modified in the public interest. But nevertheless --

I want to express my personal admiration for your integrity (regardless of all the pressures which must exist). It is my opinion that you are trying to give the public an honest picture of the future -- we need coal, and we need atomic power (even though we may differ as to the timing with respect to when atomic power becomes urgent). Further, this speech represents what I consider to be an extremely good illustration of the fact that most scientists are inclined to "tell it like it is" rather than knock the competition. I hope (not merely from the standpoint of coal, but primarily from the standpoint of the public interest) that you see fit to stay in your present position for a long time to come.

One further point: I have never had the benefit of a formal education in liberal arts. I feel that I will gradually acquire, at least in part, the benefits thereof if I have the opportunity to keep reading your speeches in the years ahead.

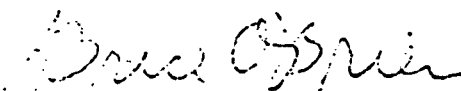
NATIONAL COAL ASSOCIATION

Dr. Glenn T. Seaborg
Page Two
November 13, 1969

I rarely write fan letters. I guess this is one.

I have turned your speech over to Steve Dunn for his pleasure in reading. He sends you his personal regards.

Sincerely,



Bruce O'Brien

BO'B:bhs

P.S.: I believe it would save us both embarrassment if you do not acknowledge this letter. We probably will find ourselves in public disagreement over some atomic policy matters in the future, as we have at times in the past.

(31st) meeting of the Scientific Advisory Board. All the members (Eyring, Baker, Adams, Stanley, Cory and I) and Milligan were present. Mr. Doherty gave us a status report covering the financial standing of the Welch Foundation, etc. We recommended to him that the proposed Welch Foundation Award be cleared through the courts to make sure that it could be awarded to non-Texans; we said it is important to administer this on a world-wide basis. We went through and made recommendations on proposals for renewal of grants, approved an \$80,000 grant to Texas A&M to inaugurate a heavy ion program at their cyclotron, and considered and made recommendations on new proposals.

We had lunch at the Houston Club.

After lunch we completed consideration of new proposals for support of research and discussed future conferences, etc.

I then went back to the Rice Hotel and visited Ghiorso in his room. He has decided to suggest the name "rutherfordium" for element 104 in his talk tomorrow; this will add to the issue with Flerov, Zvara et. al. on the establishing of the discoverers of element 104.

I had dinner at the Houston Club with the members of the Scientific Advisory Board, Milligan and Welch Foundation Trustees Doherty, Wolfe, Binion and Josey. (Bullard was absent because of illness.) We all went to the Welch Foundation Headquarters after dinner where we had our joint meeting in which the members of the Scientific Advisory Board reported their recommendations to the Trustees.

In observance of his birthday Eric took his friends, Joe Canary, Aaron Goerlich and Benny Lagueruela, as his guests to Kennedy Stadium to see the Washington Redskins-Dallas Cowboys football game, which Dallas won, 41-28.

Monday, November 17, 1969 - Houston

I had breakfast with the speakers and discussion leaders of the Welch Foundation Conference on the Transuranium Elements (held at the Rice Hotel) in the Persian Room. Present were: Albert Ghiorso, Dr. I. Zvara, Dr. O. Lewin Keller, Jr., Dr. George Cowan, Dr. B. B. Cunningham, Dr. Richard T. Arnold, Dr. James T. Waber and Dr. S. Björholm (speakers), and Dr. John G. Conway, Paul R. Fields, Dr. Richard W. Hoff, Dr. John R. Huizenga, Dr. C. H. Ice, Dr. Ralph A. James, Dr. Joseph J. Katz, Dr. Leon O. Morgan, Dr. Robert A. Penneman, Dr. I. Perlman, Dr. Torbjörn Sikkeland, Dr. A. Sobiczewski, Dr. V. Strutinsky and Dr. W. J. Swiatecki (discussion leaders). Milligan, Doherty, Josey, Eyring, Baker and Bob Holcomb of Science magazine were also present. We discussed plans for the Conference.

Milligan and I were interviewed by a reporter from the Houston Chronicle on the Welch Conference on the Transuranium Elements.

We then went to the ballroom in the Rice Hotel, where Milligan and Doherty opened the Conference. After this I gave my opening remarks "From Mendeleev to Mendeleevium - And Beyond." I spoke extemporaneously for about an hour (although I had a prepared text for publication in the Conference Proceedings).

I then introduced Sven Gösta Nilsson, who spoke on "A Theoretical Search for a Possible Region of Superheavy Elements." Following his talk I called on Dr. Strutinski, who gave what was, in effect, a talk (although he was listed in the program as a discussion leader). The reason for this was that he wanted to have exactly the same treatment and recognition as Nilsson. He spoke on his calculations on the stability of the superheavy elements. He gave a complete history, going back to Rainwater's contributions in 1952.

I had lunch with the speakers, the discussion leaders, Milligan, Eyring, Baker and Josey in the Persian Room. Nilsson, who missed breakfast with us, was present at lunch.

After lunch the second session of the Conference was held. I introduced Ghiorso who spoke on "The Berkeley Hilac Heaviest Element Research Program." He described the production of $^{257}\text{104}$, $^{259}\text{104}$ and $^{261}\text{104}$ (and the observation of their daughters ^{253}No , ^{255}No and ^{257}No). He showed a five-minute movie of the chemical identification of $^{261}\text{104}$, using adsorption-elution from Dowex-50 with alpha-hydroxy-isobutyrate--a total of 17 atoms were chemically identified. He then described their unsuccessful attempts to produce and detect Flerov's 0.3 second spontaneous fission activity which Flerov assigns to $^{260}\text{104}$. At the end he suggested the name "rutherfordium," symbol Rf, for element 104, saying that if his group ever succeeds in finding a 0.1-0.3 second S.F. element 104 they will withdraw their name and accept Flerov's name, "kurchatovium."

I next introduced Zvara who spoke on "Transmendelevium and Super-Heavy Elements in Laboratory and Nature." He described Dubna work on elements 102 and 103 and emphasized disagreements with the Berkeley group. The data he presented on the 0.1-0.3 second S.F. element 104 was pretty much the same as he had previously published. His chemical identification experiments suggest a half-life of about one second. He also mentioned the work on element 105 with no new information. They plan to use the Pu^{244} plus Ca^{48} reaction to reach element 114 and the reaction Cm^{248} plus Zn to reach element 126. He then described their work that led them to feel that they have found element 114 in old lead-containing sources. He also described the prospects for finding superheavy elements in cosmic rays (half lives of the order of 10^5 years) and the magnitude of the task of finding them in the stratosphere, or on the surface of the earth, or on the moon.

I then presided over the discussion period covering both the morning and afternoon speeches. The discussion was lively and lasted until after 5 p.m.

I went to the Houston Club where there was a reception and dinner for the speakers and discussion leaders. Milligan, Stanley, Baker and Doherty were also present.

We then went back to the ballroom of the Rice Hotel to attend a program observing the 25th anniversary of the discovery of americium and curium.

I spoke on "Elements 95 and 96 - 25 Years Ago," and was followed by some reminiscences of Albert Ghiorso, Ralph James and Tom Morgan. The whole program was filmed.

After the program, Robinson of High Voltage Engineering said they can produce a 20 MeV TU van de Graaff that will accelerate Mo^{26} to sufficient energy to overcome the potential barrier of uranium and which will sell for about \$5 million. He wants ANL or ORNL to consider the use of this as an intermediate step to their more complete heavy ion accelerators.

Ghiorso, Fritsch, Bloom and I then went to Bloom's room where I put in a call to Rubin in Washington to get his report on the meeting of the Commissioners and staff with BOB Director Mayo and his staff to consider our appeal on our FY 1971 budget. We may get restoration of about \$65 million to be composed of a list to be supplied to the BOB by tomorrow.

I watched a TV broadcast of astronauts Conrad, Bean and Gordon, who are in lunar orbit, transmitting pictures of lunar craters.

Tuesday, November 18, 1969 - Houston.

After having breakfast in my room I called Rubin in Washington about the final decisions on the composition of our \$65 million appeal to the BOB.

I presided over the third session of the Conference. I introduced Lew Keller, who spoke on "Actinide and Transactinide Elements Production and Research at Oak Ridge." After his talk I presided over a discussion session and then introduced George Cowan, who spoke on "Heavy Element Synthesis by Prompt Neutron Capture." He presented a diagram that included the designation of beta stable isotopes up to element 120, while showing various possible chains of nuclear synthesis resulting from prompt capture of neutrons and by the r process of neutron capture. He described the age of the solar system as 4.5×10^9 years and the age of the universe as 6 to 14×10^9 years. He is looking for Pu-244 in nature starting with cooperative initial separations at processing mills. He described the Hutch experiment which had a neutron flux of 3 to 4×10^{25} neutrons per cm^2 --it made 3 mg. of Fm-257, 25 mg. of Cf and 50 mg. of Cm-250. Argonne may be seeing Md-259.

Al Ghiorso, Justin Bloom and I were picked up at the Rice Hotel by Dr. Robert Shalek, head of the Physics Department of the M. D. Anderson Hospital, and driven to the hospital. We were received by Dr. R. Lee Clark (President of the M. D. Anderson Hospital) at an informal luncheon. Others present at the luncheon were: Dr. Robert Hickey (Deputy to Dr. Clark), Dr. Gilbert Fletcher (head radiotherapist), John Olson (Dean of Dental School, University of Texas), Raulo Stallones (Dean of School of Public Health), Dr. Shalek and Dr. Grant Taylor (Dean of Continuing Education). After the luncheon we were taken on a tour of a portion of the facility dealing with the use of Cf-252 in the treatment of tumors. We met Dr. George Oliver, Dr. Peter Almond, Dr. Walter Grant and Dr. Joseph Castro, all working with Cf-252. We learned that the first human patient had been treated with a Cf-252 source about a week ago.

I then returned to the Rice Hotel and opened the fourth session of the Conference by describing the potential of the practical uses of the transuranium elements, describing my visit to M. D. Anderson Hospital and introducing Burris Cunningham, who spoke on "Chemical Properties of

Actinide and Transactinide Elements." He presented an analysis of the stability of d transition elements and predicted that elements 109 and 110 would have room-temperature air-stable oxides of the VI oxidation state. The 6d transition metals should be the most refractory known. He has obtained crystal structure data on $\text{Es}^{253}\text{Cl}_3$. Following Cunningham's talk I conducted a discussion session covering his and Cowan's papers. Cunningham had to leave early because of the illness of his brother.

I was interviewed by Bob Holcomb for a story in Science covering the Conference. He is a history major and a friend of Pete, whom he knew when Pete worked at NASA.

I attended the reception and dinner of the Conference which was attended by about 500 people. Richard T. Arnold was the speaker and he talked on "Growth and Support of Creative Research in the United States." I sat next to V. M. Strutinski who is still unhappy, now because the laboratories where he spoke only paid his travel expenses and no honoraria. We discussed the development of nuclear weapons in the Soviet Union--Igor Khurchatov and Georgiy Flerov played organizational roles for the fission bomb, Andrei Sakharov the key role (the idea man) for the development of the hydrogen bomb. He said Anatolii Aleksandrov (Director of the Khurchatov Institute in Moscow) is a very influential individual, playing an important political role as a member of the Central Committee; he has a higher position than Petrosyants.

Wednesday, November 19, 1969 - Houston - San Francisco

At 5 a.m. Al Ghorso, Justin Bloom and I were picked up at the hotel by Dan Huebner (G.E., Evandale) and Charles Appleman (G.E., Houston), who took us in their car to NASA's Manned Spacecraft Flight Center (MSFC) which is about 30 miles southeast of Houston. We were met by Robert Carpenter of the AEC Space Nuclear Systems Division and the man he has stationed at Houston, William Remini. We were given access to the "viewing room" of the Control Center, which was handling the Apollo 12 mission, and were able to observe the color TV broadcast of Pete Conrad's and Alan Bean's first steps on the moon. We heard the voice communications concerned with the difficulty in removing the SNAP-27 heat source from its transport container and other events associated with the deployment of the ALSEP scientific experiment package. During this period I met Dr. Robert R. Gilruth (Director, MSFC) and Neil Armstrong, the command pilot for Apollo-11.

After staying in the Control Room until 8:45 a.m. we were taken to the room where the data, which is telemetered to earth by the ALSEP, is recorded and printed out. We then were taken to the auditorium building of the Center where I was interviewed by the following reporters: Cliff Barrett (Metromedia News), Victor Cohn (Washington Post), Harold Schmeck (New York Times), Mark Bloom (New York Daily News), John Hartsfield (Huntsville Times), Walter Sullivan (New York Times), Robert C. Owen (Christian Science Monitor), Jim Curran (Houston Chronicle), Phil Scott (G.E. Public Information), Lou Alexander (National Observer), Jack Robertson (Electronic News), Raymond Bruner (Toledo Blade) and Neil Strauss (CBS Radio). I also met and was interviewed by Dr. Leonard Reiffel, who is now a science reporter for CBS News.

We were then driven back to Houston by Huebner and Appleman, and I resumed the chairmanship of the Conference on the Transuranium Elements at 10:30 a.m. Dr. James Waber was already talking (having been introduced by Milligan). He spoke on "The Quantum Chemistry of the Super-Actinide Elements." He described and showed pictures of g electron orbitals. He described his calculations in some detail. At the end of his talk I presided over a discussion period.

I had lunch with the speakers, the discussion leaders, Milligan, Wolfe, Adams and others in the Persian Room.

After lunch I presided over the closing session of the Conference, where I introduced Sven Björnholm, who spoke on "Fission Isomers and Intermediate States in Near-Barrier Fission." He began with a surprising statement about the potential military uses of superheavy elements and a plea for international understanding in order to prevent this. He presented the concepts of an island of stability for spontaneous fission isomers centered at $Z=93$ and $N=146$. However, no S.F. isomers of neptunium have yet been observed. This was followed by the usual discussion period after which I made some concluding remarks, expressing satisfaction with the great success of the Conference.

I took a taxi to the Houston International Airport in the company of Bloom, Perlman and Swiatecki. We caught National Airlines Flight No. 27, leaving at 5:30 p.m. Kari and Pirrko Eskola, Norman Edelstein and Ralph James were on the same plane. We arrived in San Francisco at 7 p.m. I was met by Pete, Bob Jansen and Ann Woodhouse.

Pete, Bob, Ann and I had dinner at New Joe's in San Francisco and then went to Pete and Bob's apartment (Apt. B, 2912 Fulton Street, Berkeley). We rode in Pete's Volvo.

I spent the night in the Durant Hotel (Room 501).

Thursday, November 20, 1969 - San Francisco

I had breakfast in the Durant Hotel restaurant with Justin Bloom after which we met Martin Moon (a Washington AEC Public Information Officer) and Norbert Dernbach (a Brookhaven National Laboratory Public Information Officer). Bloom, Moon, Dernbach and I rode with Ward Blackmon to the Hotel Claremont. Here we met Dan Wilkes, Dave Perlman, Harold Fidler and others in the Empire room. I spoke to about 50 people present at the Seventh Annual Briefing of New Horizons in Science of the Council for the Advancement of Science Writing which was co-sponsored by the Lawrence Radiation Laboratory. I was introduced by Dave Perlman, who was chairman, and spoke on "Fission and Fusion - Developments and Prospects." This was followed by a question and answer period. I then made the announcement that Brookhaven and the Department of Agriculture scientists had synthesized and injected a double stranded RNA into mice and induced an anti-viral reaction, via interferon, against the virus that causes hoof and mouth disease.

I called Rubin and learned that the BOB has demanded that we drop either the Light Water Breeder or the Molten Salt Breeder in the FY 1971 budget. We must make this decision on Monday morning; it will be a difficult choice.

I then heard the remainder of the talk by Kingsley Davis on "The Growing Controversy on Population Policy."

I attended a luncheon, hosted by Dan Wilkes in the Garden Room, with a group of science writers. Present besides Wilkes, Bloom and me were: Dustin Harvey (United Press International), James Hazelwood (Oakland Tribune), Richard James (Wall Street Journal), Arthur Tressler (Science Year), Kenneth Weaver (National Geographic Magazine), David Perlman (San Francisco Chronicle), Richard G. Young (Encyclopaedia Britannica), and Mr. and Mrs. William Steven (Chicago Sun Times).



Meeting of Council of Advancement of Science Writing, Hotel Claremont, Berkeley November 20, 1969.

L to R: Seaborg, Dave Perlman.

Bloom and I then rode with Blackmon to the Chemistry Building of the Lawrence Radiation Laboratory. We visited with Street, Hyde, Perlman,

Hollander, Harvey and Thompson. I talked with Harvey about the potential security problems that have arisen in connection with obtaining clearance for Mrs. Henrietta Farraggi of the French Saclay Laboratory to spend about three months working with Harvey at Berkeley. I saw the model depicting half-lives in the region of the superheavy elements in Tsang's office.

I talked to Doral Buchholz about my project to recreate a history of the post-1946 activities of my Berkeley nuclear chemistry group.

I rode with Blackmon to Davis. I went to Steve's room (No. 102) in Beckett Hall, where Steve introduced me to his roommate, Paul Schwabe. Dave joined us, and Tung Fu, Mike Lowery, Paul, Dave, Steve and I went to the Beckett Hall dining area and had dinner. After dinner Steve went with a group to Sacramento where he tutors an underprivileged Negro youth on Thursday evenings. Steve is considering choosing psychology as his major.

I then went with Dave to Hammarskjold House (Thille D) of the Tercero complex and we went to his room (No. 216). Here I met one of his roommates in the suite where he lives, Buzz Drowley (a biological sciences major); his other two roommates, Dan Sheldon and Dave Crawford, weren't there. We also visited the Tercero dining area. I told Dave that he could tell Monti Reynolds, the Hammarskjold House faculty representative, that I would give a talk to a student group at the House when I visit him again on December 1. I found Dave in unusually good spirits, a result of his feeling that he is making good grades this quarter, has girl friends he likes, and enjoys Hammarskjold House and his roommates and friends there.

I rode back to the Durant Hotel in Berkeley with Ward Blackmon.

Friday, November 21, 1969 - San Francisco - Washington

I had breakfast in the Durant Hotel and then rode to the San Francisco Airport with Blackmon.

I flew on TWA Flight No. 64, leaving about 9:15 a.m. and arriving at Dulles Airport about 5 p.m. During the flight I read AEC papers which had been sent to me by mail.

Saturday, November 22, 1969 - D.C.

I worked in the office until 2 p.m. Julie Rubin and I had our lunch in the Commission dining room.

I received a letter from the President thanking me for his copy of The New World and Atomic Shield (copy attached). I also received a letter from the Secretary of State (copy attached) enclosing a letter from Michael Stewart thanking us for working out a satisfactory solution to the centrifuge issue (copy attached).

I took a hike with Eric and Suki in Rock Creek Park, starting at Oregon and Nebraska Avenues, going on the White Horse Trail to Cross Trail 1, on

THE WHITE HOUSE
WASHINGTON

November 20, 1969

Dear Glenn:

I am indebted to you for your thoughtfulness in sending me The New World, 1939-1946 and Atomic Shield, 1947-1952, and I want you to know of my appreciation for this generous gesture. These important works will be a valued contribution to my personal library.

With my best wishes,

Sincerely,

A handwritten signature in black ink, appearing to be "RW" or "R. W.", enclosed within a hand-drawn oval border.

Dr. Glenn T. Seaborg
Chairman
Atomic Energy Commission
Washington, D. C. 20545

THE SECRETARY OF STATE
WASHINGTON

UNCL. BY DOE
NOV 86

November 18, 1969.

h/s 11/21/69

Dear Glenn:

I am enclosing a copy of a letter I received from Michael Stewart on the centrifuge issue, along with my reply.

You and your colleagues deserve the lion's share of the credit for working out a mutually satisfactory solution, and I want to add to the Foreign Secretary's expression of appreciation my personal thanks to you.

With best personal regards,

Sincerely,



William P. Rogers

The Honorable
Glenn T. Seaborg,
Chairman,
Atomic Energy Commission.

11/22/69

OFFICE DIARY
GLENN T. SEABORG
CN USAEC, 1981-72
FOLDER-PAGE 107213

NOT DECLASSIFIABLE

DOCUMENT TITLE Ltr. To William Rogers From Michael Stewart

dated 10/9/69 - "you will remember that

when we met in New York . . ."

09/17/61

This document has been determined to be NOT DECLASSIFIABLE and has been removed from this folder.

W. Teach
Name

11/24/87
Date

Reference Ltr. Dos Burke To DOE, OC Gilbert dated 8/17/87

the Black Horse Trail to Cross Trails 3 and 4 and returning to our starting point.

Dianne's friend, Amy Ballou, had dinner with us and stayed overnight.

I watched the USC-UCLA football game on TV; USC won, 14-12, making them the Western representative in the Rose Bowl.

In the evening Admiral Rickover and David Leighton came to see me at home in order to describe all the advantages of the Light Water Breeder Reactor. I will have to make a choice between this and the Molten Salt Reactor in the FY 1971 budget.

Sunday, November 23, 1969

Dianne, Amy Ballou, Suki and I hiked in Rock Creek Park, starting at Oregon and Nebraska Avenues, going along the White Horse Trail to Cross Trail 2, on Cross Trail 2 to the Black Horse Trail, to Cross Trails 3 and 4 and back to our starting point.

Helen, Eric, Dianne and I went to Kennedy Stadium to see the Washington Redskins-Atlanta Falcons football game; the Redskins won, 27-20.

I worked on my speech, "The Expanding Role of the Atom in the Humanities," a memorial lecture honoring Paul Aebersold, that I will give at the ANS meeting in San Francisco on December 2, and my speech, "20545" which I will give at the Northwest Conference on the Role of Nuclear Energy in Portland, Oregon on December 4.

Monday, November 24, 1969

Helen informed me this morning of the sad news of Saul Winstein's death. Sylvia called last night and told Helen that he died in their swimming pool, apparently as a result of a heart occlusion. I phoned Sylvia and also wrote her today to express my heartfelt condolences.

At 9 a.m. I met with Commissioners Ramey, Johnson, Thompson and Larson, Bob Hollingsworth, Ed Bloch, John Abbadessa, Vic Corso, W. B. McCool and Julie Rubin, to discuss the appeal to the President, through Budget Director Mayo, on the FY 1971 budget. The main issue was the BOB directive that we make a choice between the Light Water Breeder and the Molten Salt reactors. This is a practically impossible choice because of the different nature of the two. The Light Water Breeder is close to the completion of its development program, and the BOB indicates that it is willing to fund it to completion, while the Molten Salt has broader, long-range potential but will cost so much to develop that the BOB apparently will not support it. Commissioners Johnson, Thompson and Larson voted for the Molten Salt reactor, while Ramey and I voted for the Light Water Breeder. This outcome was made questionable because of Commissioner Larson's former connection with the Oak Ridge National Laboratory. Therefore, it was decided that I would call Mayo to describe the situation to him in an attempt to obtain his approval to continue work on both projects. We also decided to appeal about \$10 million in basic research, \$2 million for the gas centrifuge equipment at Oak Ridge and \$2 million for desalting investigations.

Hollingsworth dropped in and told me that he wanted to apologize for his change of position in suggesting that a letter be sent to Fawcett directing that Albaugh reorganize his effort on the FFTF by putting Wolf in complete charge. This unresolved issue will be discussed further at a separate Commission Meeting tomorrow. Hollingsworth said that Shaw is insisting on such a move and that Holifield has indicated strong support for this move. I reiterated that some change is needed in Shaw's method of operating or all of our projects will fail.

President Nixon signed the instrument of ratification of the Non-Proliferation Treaty (copy of press releases attached) this morning at 11 a.m. in order to keep pace with the anticipated Soviet signature of its instrument of ratification. This is a necessary step toward deposit of the instrument of ratification which presumably will take place in a White House ceremony within the next couple of weeks. The Soviet Union Presidium voted its ratification of the NPT today and the instrument of ratification was immediately signed by President Nikolai V. Podgorny.

I called Carl Anderson at Cal Tech at 12:20 p.m. regarding the date of the dedication of the Lauritsen and Downs laboratories on January 23, 1970. I cannot attend but will see if one of the Commissioners can represent the AEC.

I had lunch with Labowitz and Rubin in the little conference room adjoining my office. We discussed the status of the SALT negotiations that are taking place in Helsinki. (Attached is memo from Labowitz giving the details of the negotiations.)

I watched on TV the splashdown of the Apollo 12 astronauts, Pete Conrad, Alan Bean and Richard Gordon, which occurred at 3:58 p.m. about three miles from the recovery ship, the USS HORNET, within the view of the TV audience.

I talked to Mayo on the phone and told him about our session this morning on making a choice between the Light Water Breeder reactor and the Molten Salt reactor and that we had run into a difficulty that came about in a curious way because of the question of Commissioner Larson's eligibility to vote on this matter. I went on to say that the Light Water Breeder has the advantage of being on the home stretch, while on the other hand, the Molten Salt reactor has the advantage that it has greater long-range potential which could, in the long run, benefit industry much more than the Light Water Breeder. I said we wonder if he could possibly be convinced to let us carry through the Light Water Breeder and also carry the Molten Salt at a low level by not going in for some of the expensive development. We would keep the development of the Molten Salt for a number of years at \$5-\$10 million just to keep it alive and we would direct Weinberg that this was the case. I told Mayo we are afraid of losing the team at Oak Ridge and thereby losing the innovation and growth potential as well as a real chance for an eventual breakthrough of a very extensive source of nuclear power. I asked him if he could be convinced to go for that.

Mayo said he had very reluctantly arrived at the decision to focus on just one of these reactors as obviously we are much more capable of making the decision than he is; he can understand our dilemma. He said, if he were to agree to this, then it would be the only exception he could

FOR IMMEDIATE RELEASE

NOVEMBER 24, 1969

OFFICE OF THE WHITE HOUSE PRESS SECRETARY

THE WHITE HOUSE

REMARKS OF THE PRESIDENT
AND SECRETARY OF STATE WILLIAM P. ROGERS
UPON SIGNING THE INSTRUMENT OF RATIFICATION
OF THE TREATY ON THE NON-PROLIFERATION OF NUCLEAR WEAPONS
THE PRESIDENT'S OFFICE

AT 11:09 A.M. EST

THE PRESIDENT: Ladies and gentlemen:

We have invited you here today to witness the signing of the Instrument of Ratification of the Treaty on the Non-Proliferation of Nuclear Weapons to which the Senate gave us the advice and consent on March 13th of this year.

This act of ratification completes a process which has spanned the Administrations of three Presidents in which this treaty was negotiated and it is now being ratified.

It is our hope that after the ratification on the part of the United States that the necessary additional number of nations will ratify the treaty so that it will go into effect.

In speaking of this treaty, we believe that this action today underlines the commitment of this nation, not only for a policy of limiting armaments generally, but also to reduce those areas of conflict that potentially would result in a threat to the peace and security of the world.

Finally, I believe that this act of ratification clearly demonstrates that this nation, through the Administrations of all our Presidents in this century, is dedicated to the cause of peace and we will continue to pursue that cause in every possible, effective way.

The Secretary of State, I think, will explain to you the final action with regard to the treaty and the ceremony which will be scheduled at that time. We have not set the date for it.

SECRETARY ROGERS: The final act in this process of ratification requires the exchange of the instruments of ratification. And we will deposit those instruments in Moscow and in London as provided by the treaty, sometime within the next ten days or two weeks.

At that time, we will provide an opportunity for all of those who played such an important role in this treaty to attend the ceremonies. Mr. Ziegler has an announcement to that effect.

We will, at that time, have President Johnson, former Secretary of State Dean Rusk, Bill Foster, the Legislative Leaders and others to attend those ceremonies.

MORE

(OVER)

QUESTION: Is there one here, Mr. Secretary, a deposit here as well as in London and Moscow?

SECRETARY ROGERS: Yes.

THE PRESIDENT: That ceremony will be at the State Department.

SECRETARY ROGERS: Probably in about two weeks.

QUESTION: Have you signed three copies?

MR. ROGERS: Four.

MR. ZIEGLER: I will have the details on this, gentlemen, after this ceremony.

QUESTION: Mr. Secretary, when will the Soviet Union deposit theirs?

SECRETARY ROGERS: At the same time. We will work that out with them. They have ratified today at the same time, simultaneous ratification. We will have a simultaneous deposit of the instruments of ratification in about two weeks. I have been in touch with Ambassador Dobrynin on that subject. He will let us know their plans. We would hope that it is possible to have a joint ceremony. But that is still uncertain.

QUESTION: When would you expect this to go into effect?

SECRETARY ROGERS: We would hope, now, in view of these ratifications by the United States and the Soviet Union, that it would be in the next few months.

MR. ZIEGLER: Thank you, gentlemen.

END

AT 11:15 A.M. EST

NOVEMBER 24, 1969

Office of the White House Press Secretary

RECEIVED BY DOE
NOV 24

THE WHITE HOUSE

STATEMENT BY THE PRESIDENT

I have today signed the Instrument of Ratification of the Treaty on the Non-Proliferation of Nuclear Weapons to which the Senate gave its advice and consent on March 13, 1969.

This Government is thus completing the process of ratifying a major international agreement designed to make our world a safer home for all mankind.

The negotiation and ratification of this treaty spans the Administrations of three Presidents and reflects our country's dedication to the cause of peace.

It is my earnest hope that ratification of the treaty by the necessary number of additional states will soon occur so that it may enter into force at an early time.

This Administration seeks equitable and meaningful agreements to limit armaments and to resolve the dangerous conflicts that threaten peace and security. In this act of ratification today, this commitment is demonstrated anew.

#

CROSS REFERENCE SHEET

Document # 911770

TITLE OF DOCUMENT Letter to J.D.S. No date, 4 pages
Allan M. Labowitz

This document requires further classification review and has been removed from this folder.

Jeffrey B. Kala
Name

September 2, 1986
Date

107233-107236

make to the group of items we submitted to them last Monday. I asked him if he had talked to Fred Schuldt today, and he said Fred had told him that we are looking for more money on research, gas centrifuge and desalting. After a further discussion on these items, he said if he gave them to us they would have to come out of something else. He said, if we could figure that out, then maybe we can do business on the reactors. He suggested that we both give it more thought and that I call him tomorrow.

At 4:40 p.m. I presided over Information Meeting 972 (notes attached). I reported on the result of the telephone conversation I had with Mayo, and we decided to try to identify offsetting cuts in order to include some money for such items as basic research, the gas centrifuge and desalting. We discussed the type of administration which the AEC might apply to the gaseous diffusion plants under the President's recent decision and concluded that this should be under the General Manager. The staff recommended against approval of an export license to the U.K. for Owens Corning Fiberglas International to export 1120 pounds of fiberglass yarn to the UKAEA which would presumably be used in gas centrifuge applications. Because this material is unclassified and available off the shelf, we overruled the staff (with Commissioner Ramey dissenting).

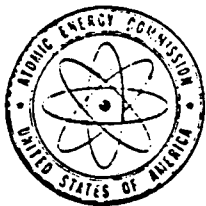
I sent President Nixon a letter (copy attached) commenting on the Atoms-in-Action exhibits and sending him a picture taken at the Bucharest exhibit which I opened on October 1.

I received a letter from Chet Holifield (copy attached) concerning the timing of sending to the JCAE for its consideration amendments to defense agreements, such as the Amendment to the 1958 U.S.-U.K. Mutual Defense Agreement.

I received a letter from Chet Holifield (copy attached) commenting on the budget-forced cuts in the nuclear weapons program and asking about our present plans in the field of research, development and testing. He said that after reviewing these plans he may wish to request the Commission and other responsible agencies to testify before the JCAE on this important matter.

I wrote a letter of appreciation to Bob Fowler (Los Alamos) on his influence on my career and to wish him a speedy recovery.

I attended a dinner at Blair House given by Lee DuBridge for French Minister for Industrial Development and Scientific Research, Francois Ortoli. Others present included Jerry Tape, Lewis Branscomb (NBS), Nathaniel Samuels (Deputy Under Secretary of State for Economic Affairs), Dr. Thomas O. Paine, Dr. Allen Astin, Jacques Leprette (French Minister Counselor), Herman Pollack, Myron Tribus (Commerce), Harold Finger. I talked to Ortoli about the personnel cuts that are being made in the French Atomic Energy Commission and he said that these are for the purpose of increasing efficiency so that such things as the sale of uranium, etc. can be economically competitive. He said that he was responsible for the French decision to support the European 300 Bev Accelerator. He also confirmed that France has decided to include enriched uranium, water cooled reactors in their nuclear power program, but haven't yet chosen between the BWR and the PWR. I also talked to Pollack, who said that Smyth has again been in touch with DuBridge with



UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

COPY NO. 3
November 24, 1969

INFORMATION MEETING 972

4:40 p. m., Monday, November 24, 1969, Room A-458, Germantown

1. Revised Agenda for the Week of November 24, 1969

Noted. (SECY)

2. AEC 610/193 - International Cooperation on Gaseous Diffusion Technology

To be scheduled tomorrow. (SECY)

3. Oral Report on NASM 71 Study

Noted. Commissioner Johnson is following this matter. (AGMIA)

4. AEC 23/90 - Proposed Denial of License to Export Fiberglass Yarn to U. K.

The Commission, with Commissioner Ramey dissenting, disapproved the staff recommendation to deny the license. (AGMIA)

5. AEC 1195/4 - Austrian National: Security Information

Approved. (AGMIA)

6. AEC 89/176 - Argentine National: Proposed Renewal of Employment at LASL

Approved. (AGMIA)

7. NSC Under Secretaries Meeting December 4, 1969

Staff will request a postponement. (AGMIA)

EXECUTIVE SESSION

8. Fiscal Year 1971 Budget Mark-up

Alternate cases are to be developed for consideration at 9:45 a.m. tomorrow. (OC)

9. Commissioners' Meeting with Gulf General Atomic, 2:00 p.m.,
January 26, 1970

To be checked. (Rubin-SECY)

10. Briefing by General Electric on Space Electric Program, 2:00 p.m.,
December 10, 1969

Scheduled. (Rubin-SECY)

11. Dedication of George W. Downs Laboratory of Physics and Charles C.
Lauritsen Laboratory of High Energy Physics, California Institute of
Technology, Friday afternoon, January 23, 1970

Commissioner Thompson will attend. (Rosen-SECY)

12. Conference on Commercial Radiation Processing April 13 and 14, 1970

Commissioner Thompson will attend. (Rosen-SECY)

13. Chairman Chet Holifield's, JCAE, November 14 Letter re US-UK
Cooperation

Noted.

14. Chairman Chet Holifield's, JCAE, Letter re the Nuclear Weapons Program

Noted.

15. December 4th Hearing on Test Readiness Program

Postponement to the week of December 8 is requested. (AGMMA)

16. Executive Session (See Mr. Vinciguerra's November 3 Memorandum)

Approved. (AGMA)

17. Oral Discussion on Gaseous Diffusion Plants

Staff may proceed. (AGMP&P)

18. Rocky Flats Labor Problem

Staff may proceed. (LABR)

19. AEC 620/67 - S&E Contractors, Inc. V. United States (U.S. Court of Claims No. 104-67)

Approved. (GC)

20. AEC 1297/3 - Proposed Revision of National Disclosure Policy

Approved. (AGM)

21. AEC 811/279 - The Value and Need for Nuclear Excavation

Noted. (PNE)

22. AEC 1083/143 - IAEA Fourth Conference on Plasma Physics and CTR

Approved. (R)

23. AEC 274/48 - Excessing Unused Portions of Heavy Water Plant

To be scheduled tomorrow. (SECY)

24. Pending Contractual Matters Report No. 335

Noted. (PAR)

W. B. McCool
Secretary

6:10 p.m.

PRESENT

COMMISSIONERS:

Chairman Seaborg
Commissioner Ramey
Commissioner Johnson
Commissioner Thompson
Commissioner Larson

STAFF:

Mr. Hollingsworth
Mr. Bloch
Mr. Hennessey
Mr. Rubin
Mr. Kull
Mr. McCool
Mr. Friedman*
Mr. Quinn*
Mr. Erlewine*
Mr. Roser*
Mr. Herrick*
Mr. Labowitz*
Mr. Kelly*

DISTRIBUTION:

Commissioners
General Manager
General Counsel
Secretary

*Attendance by Topic (s)

UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

UNCL. BY DGE
NOV 86

November 24, 1969

OFFICE OF THE CHAIRMAN

The President
The White House

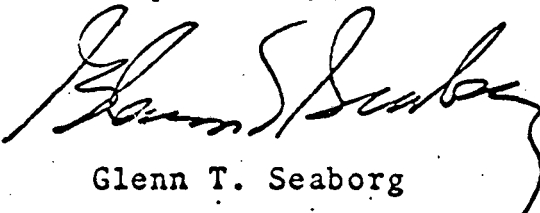
Dear Mr. President:

On October 1, 1969, in Bucharest, Romania, I spoke at the opening ceremony for one of the USAEC "Atoms-In-Action" traveling exhibits. Enclosed is a picture taken at the entrance to the exhibit during the ceremony where your picture was prominently placed along with a picture of President Ceausescu of Romania.

I have also enclosed a brochure about the exhibit that you may find of interest. This exhibit, along with a different type that is sponsored by the AEC for use in the United States, has been an outstanding success. They inform the average citizen of the benefits of nuclear energy, serve as a classroom for students and teachers working in nuclear science, and help to stimulate interest in young people in improving their knowledge and possibly pursuing a career in science or engineering.

I hope you will have the opportunity some day to visit one of the AEC traveling exhibits.

Respectfully,



Glenn T. Seaborg

Enclosures:
1. Picture
2. Brochure

CHET M. HILD, CALIF.,
CHAIRMAN
MELVIN PRICE, ILL.
WAYNE N. ASPINALL, COLO.
JOHN YOUNG, TEX.
ED EDMUNDSON, OKLA.
CRAIG HOSMER, CALIF.
JOHN B. ANDERSON, ILL.
WILLIAM M. MCCULLOCH, OHIO
CATHERINE MAY, WASH.
EDWARD A. BAUSER, EXECUTIVE DIRECTOR

JOHN O. PASTORE, R.I.,
VICE CHAIRMAN
RICHARD B. RUSSELL, GA.
CLINTON F. ANDERSON, N. MEK.
ALBERT GORE, TENN.
HENRY M. JACKSON, WASH.
GEORGE D. AIKEN, VT.
WALLACE F. BODNETT, UTAH
CARL T. CURTIS, NEBR.
MORRIS COTTON, N.J.

Congress of the United States

JOINT COMMITTEE ON ATOMIC ENERGY

WASHINGTON, D.C. 20510

November 14, 1969

ENCL. BY DOE
NOV 86

Honorable Glenn T. Seaborg
Chairman
Atomic Energy Commission
Washington, D. C.

Dear Dr. Seaborg:

The November 12, 1969 Washington Post carried an article which indicated that a U.S.-U.K. amendment to the 1958 British-American defense agreement had been signed in Washington "within the last two weeks." According to the story, the "materials clauses" bind the United States to provide for cooperation in all aspects of nuclear weapons development.

I presume this article is making reference to the amendment to the 1958 U.S.-U.K. Mutual Defense Agreement, which I understand is scheduled to come to the Congress in the near future. It is also my understanding that work on this amendment has been in process for some months.

It is late in the Congressional year, and we are faced with the situation of having the 60 day time period, which is required by the Atomic Energy Act for any such amendment, overlap two sessions of Congress.

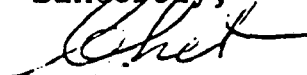
You will recall on March 10, 1969, when we were considering another amendment to the present U.S. Agreement for Cooperation with the United Kingdom, I made reference to the fact that the amendment had come up on October 14, 1968, the last day of Congress. At that hearing I said quite frankly that I did not feel the Commission should bring up such a matter on the last day of Congress; that it could have waited until the beginning of the year when the committee was organized.

Now it appears there is a similar situation developing. We have not received the amendment, which has been under discussion for some months in the Executive Department.

(2)

I would hope that the amendment could be brought to the Congress very shortly or that it be held until next January so that the 60 days required by law can run in a consecutive fashion.

Sincerely,


Chet Holifield
Chairman

P.S. I am informed that the House plans to recess on Dec 20th and reconvene on Jan 20th 1970. Therefore I would prefer delay until Congress convenes.

CH. HOLIFIE, J., CALIF.,
CHAIRMAN
M. LVIN PRICE, ILL.
WAYNE A. ASPINALL, COLO.
JOHN TOWN, TEX.
ED EDWARDS, CALIF.
CARTER HOSENER, CALIF.
JOHN S. ANDERSON, ILL.
WILLIAM M. MCCULLOCH, OHIO
CATHERINE MAY, WASH.
EDWARD A. BAUSER, EXECUTIVE DIRECTOR

Congress of the United States

JOINT COMMITTEE ON ATOMIC ENERGY

WASHINGTON, D.C. 20510

November 17, 1969

JOHN O. PASTORE, R.I.,
VICE CHAIRMAN
RICHARD S. RUSSELL, GA.
CLINTON P. ANDERSON, N. MEX.
ALBERT GORE, TENN.
HENRY M. JACKSON, WASH.
GEORGE D. AIKEN, VT.
WALLACE F. BENNETT, UTAH
CARL T. CURTIS, NEBR.
NORRIS COTTON, MISS.

NOV 18 1969

Dr. Glenn T. Seaborg
Chairman
U. S. Atomic Energy Commission
Washington, D. C. 20545

Dear Dr. Seaborg:

It was with great concern that I read your letter of November 12, 1969, to the Deputy Secretary of Defense about budget-forced cuts in the nuclear weapons program. The delays that you indicated would be necessary in achieving agreed-to initial operational capability dates for the Lance and Condor weapon systems are indeed a significant setback to the capabilities of our field forces, but the cutbacks you indicated were necessary in research, development, and testing strike at the very heart of our national security.

We have already eroded one of the four safeguards that the Executive Branch established as vital to national security if the United States were to continue improving its nuclear weapon programs within the constraints of a limited test ban treaty. Safeguard Number 3--the readiness to resume atmospheric testing--has to all intents and purposes been eliminated, notwithstanding the statements made in a letter of November 12, 1969, from the DoD to Senator Jackson that a new realistic program can be developed. Under the old ground rules, testing could have been resumed within two to twelve months after the initiation of a "Go" signal. I understand that any new program we get will not be ready to start until January 1, 1972--a "Go" signal could not even be accepted until that date. Furthermore, the resumption of meaningful testing will take about another year, so our real readiness date is more like January 1, 1973. I further seriously doubt whether the ships, aircraft, and bases which have been converted, scrapped, or mothballed could be returned to service in one year from "Go." This same doubt applies to obtaining the appropriate military and civilian forces necessary to resume testing. I am gravely concerned that we will find ourselves, nationally, in the same position we were when the Russians resumed testing in 1961. Our motto then seemed to be--"Hurry up and waste."

Dr. Glenn T. Seaborg

- 2 -

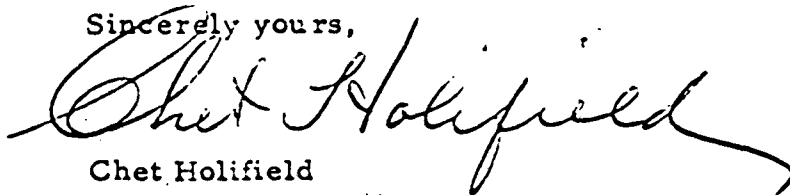
November 17, 1969

While the deterioration of Safeguard Number 3 is troublesome, the deterioration of Safeguards Numbers 1 and 2 could prove disastrous. Let me point out the obvious. The SALT meetings with the Soviets are just beginning, the limitations on strategic arms are not a fait accompli, there may never be any significant limitations or agreements on limitations. How then can the United States allow the underground nuclear test program and the maintenance of modern nuclear weapon laboratories and programs slip when all indications point to the fact that we are falling behind the Soviets in numbers of strategic weapons? To fall behind in quality as well as quantity before any agreements are reached could be a form of national suicide. The cutbacks you propose would seem to indicate that we are approaching a unilateral cessation of research, development, and testing. I do not believe the leaders of this country are ready for a single-ended moratorium in these efforts.

I would appreciate receiving from you, as soon as possible, your present plans in the fields of research, development, and testing and an indication of how these efforts differ from the testimony you gave before the Joint Committee in March 1969. After I have an opportunity to review these plans I may wish to request the Commission and other responsible agencies to testify before the Committee on this important matter.

For your information, I am sending copies of this letter to Senator Jackson, Dr. Henry Kissinger, and the Secretary of Defense.

Sincerely yours,



Chet Holifield
Chairman

cc: Senator Henry M. Jackson

Dr. Henry Kissinger

Mr. Melvin Laird

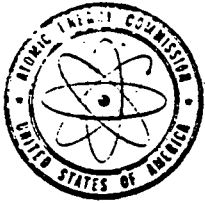
respect to his possible departure from his position as the U.S. Representative to the IAEA, and some differences still remain as to timing, etc.

Tuesday, November 25, 1969 - D.C.

At 10 a.m. I presided over Information Meeting 973 (notes attached). We discussed the possible identification of offsetting items to enable us to include more money for basic research, the gas centrifuge and desalting in the FY 1971 budget. We were only able to identify \$1 million in isotopic fuels, which could be transferred to desalting. I therefore called Mayo, and he agreed to add \$5 million to carry on technology for the Molten Salt reactor in exchange for our foregoing our three additional appeal items (with the shift of \$1 million to desalting). He also agreed that he would express to the President my concern regarding the inadequate level for basic research. I also emphasized to him the importance of the category B or policy items. I mentioned the importance of the items in the weapons program, especially the money needed to have a readiness posture for the resumption of atmospheric testing, recommended the shut down of only one K reactor rather than two this year, recommended strongly the need for the money (\$63 million) for the Cascade Improvement Program, mentioned the matter of possible additional money for NERVA and the space electric program and the policy matter of additional money for the Plowshare program. Mayo said he would call all these matters to the attention of the President; and if, on the basis of this, I wanted to appeal any of these actions to the President, I would be given the opportunity to see the President.

Holifield called to tell me that he is very concerned about some of the problems connected with the fast breeder program. He attended a dedication of a Westinghouse laboratory in Pittsburgh a few weeks ago, where he talked to a number of people who are very critical about the lack of leadership at Battelle. He also talked about a month ago with Atomic International people, and he said they also are depressed at the way the project is going. He also mentioned an exchange of correspondence between Mel Price and Cannon of the University of Chicago on problems with Argonne. Holifield said he talked to Milt Shaw when he returned from Pittsburgh and found that Shaw is very distressed and discouraged and about on the point of throwing in the chips. He said something has to be done about the type of cooperation we are getting from laboratories, especially Hanford and Argonne.

Holifield said he had talked to Mayo recently and pointed out to him that the breeder program is the main AEC effort and that he wasn't too happy about the cut in it. He said Mayo didn't defend himself very strongly but said he believes in the breeder reactor program and doesn't intend to cripple it. Holifield also has talked to some other Republicans, and he thinks they may do better by us in the FY 1972 budget. I told Holifield that we are still in the process of appeal and the thing that worries us most is what Senator Ellender did to us. Holifield said that Bauser is preparing a letter to Ellender in this connection. I also told him that we would be discussing the Battelle problem today. He said he would like to get together with me next week, and I suggested that we do it sometime next Wednesday in San Francisco.



UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

UNCL. BY DGE
NOV 86

COPY NO. 3
November 25, 1969

INFORMATION MEETING 973

9:55 a.m., Tuesday, November 25, 1969, Chairman's Conference Room, D. C.

EXECUTIVE SESSION

1. BOB Mark-up of the Fiscal Year 1971 Budget (See Controller's
November 25 Memorandum for File re FY 1971 Budget)

The Controller discussed with the Commission an alternate case as requested at Information Meeting 972 yesterday. After consideration, the Commission decided to appeal the LWBR and the MSBR to the BOB and requested a substitution for the Desalting Program at \$1 million.

The Chairman telephoned the Director, BOB, and reported Mr. Mayo had agreed to the following actions on the FY 1971 budget request:

- a. provide \$10.0 million additional for the LWBR and \$5.0 million for the MSBR with the understanding the MSBR would be conducted as a technology program;
- b. substitution within our base program to provide \$1.0 million for Desalting and to reduce Isotopic Fuels of the Space Electric Program an equal amount; and,
- c. include in his letter to the President the Commission's concern with the FY 1971 level for basic research in the Commission's budget.

(OC)

W. B. McCool
Secretary

10:20 a.m.

HAPPY THANKSGIVING

PRESENT:

COMMISSIONERS:

Chairman Seaborg
Commissioner Ramey
Commissioner Johnson
Commissioner Thompson
Commissioner Larson

STAFF:

Mr. Hollingsworth
Mr. Bloch
Mr. Abbadessa
Mr. Corso
Mr. Rubin
Mr. McCool

DISTRIBUTION:

Commissioners
General Manager
Secretary

President Nixon announced today that the United States will not use weapons of Germ warfare under any circumstances and will destroy its stockpiles and will not use weapons of chemical warfare except for defensive purposes.

At 10:30 a.m. I met with the members of the Atomic Energy Labor-Management Advisory Committee: Andrew J. Biemiller (AFL-CIO), H. Roy Chope (Industrial Nucleonics Corporation), Charles Keenan (Yankee Atomic Electric Company), Dr. Harold Fidler (LRL, Berkeley), Howard Nason (Monsanto), Floyd Smith (International Association of Machinists and Aerospace Workers), E. D. Swisher (Oil, Chemical and Atomic Workers Union), George Taylor (AFL-CIO), Commissioners Ramey, Johnson, Thompson and Larson, and other AEC staff. I spoke briefly to the group mentioning that this is our first meeting since 1963 and emphasizing our need for their help in such areas as radiation record keeping. I pointed out our need for their understanding and cooperation in the area of public concern over environmental effects of nuclear power.

At 11:30 a.m. Commissioners Ramey, Johnson, Thompson, Larson and I, Bob Hollingsworth, Milt Shaw and Julie Rubin met with Alvin Weinberg, Roger F. Hibbs (President, Union Carbide Corporation) and Herbert G. MacPherson (Deputy Director, ORNL). The Oak Ridge representatives described the problem of overspending in FY 1971 and suggested (1) a temporary remedial action through the delay of the activation of a pension fund program, and (2) a review of the Molten Salt Breeder Reactor program. We told them it had been nip and tuck but that the Molten Salt program will be in the FY 1971 budget at a reduced level. Weinberg stated a decision had been made 23 years ago to eliminate ORNL from the reactor development program, and he hoped this decision was not about to be implemented now. He noted ORNL's part in the development of the MTR and the eventual outgrowth of the PWR system to development of the nuclear navy. Weinberg stated there is a difference in approach to the development of a breeder reactor between RDT and ORNL. He reviewed the history of the breeder project and stated in 1943 a decision had been made to exploit the chemistry of nuclear systems. This decision has since been compromised by concentrating on obtaining a higher breeding ratio and a longer fuel life. This has resulted in the main LMFBR problem being the fuel area.

Weinberg then reviewed a further difference in approach with RDT in which the present LMFBR development involves industry and further that there is need to involve two or three companies to assure a competitive reactor manufacturing capability. Weinberg said his approach for the Molten Salt reactor would be a single laboratory effort through the proof of engineering phase of the project which would be followed by complete industry expansion of the work after that point. He offered as an example the Shippingport project, which subsequently resulted in Yankee's being completely financed by Westinghouse. Weinberg stated his approach is much less expensive than that for the LMFBR plan.

I stated the reason the molten salt reactor is in trouble at the present time involves some facts that cannot be ignored. It involves the large commitment to the LMFBR as our first line objective, the commitment to a large facility such as the FFTF, recognition that the light water breeder reactor is within sight of completion and that the HTGR is in the demonstration reactor state with large industrial support. In this situation the molten salt reactor presents a serious problem to the BOB

regardless of whether the future projected cost to the government would be \$300 million, \$500 million or \$1-1.5 billion. I explained that the AEC budget is presently at a state of review by the BOB with the President. After very difficult negotiations we were only able to keep the molten salt project alive at a low level on the order of \$5 million and even this is not a firm guarantee at this stage. The fact that molten salt would be alive seemed to be some relief to Weinberg but obviously a disappointment that the project would not proceed with more support.

Julie Rubin and Justin Bloom took me to lunch at the GJS Ranch on 18th Street.

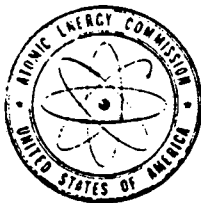
At 3 p.m. I presided over Information Meeting 974 (notes attached). We discussed with Shaw the problem of the FFTF and Shaw's suggestion that the Battelle Pacific Northwest Laboratory be directed to reorganize in order to move this program along the line that he wants to direct it. It was a rather difficult session because clearly the problem lies as much with Shaw and his overall direction of the program as it does with deficiencies in the organization and operation of the PNL. Although no decision was reached on the former problem, it was decided that Commissioner Johnson and Bob Hollingsworth would visit PNL next week in connection with their attendance at the AIF-ANS meeting in San Francisco in order to discuss the general problem with Fawcett, Albaugh, Wolf and others.

At 4:15 p.m. I met with Ambassador Robert Schaetzel (U.S. Representative to European Communities) who was accompanied by Daniel Phillips of the State Department. Also present were Myron Kratzer, Bill Yeomans and Julie Rubin. Schaetzel explained he is in town for a few days and, while not having anything specific in mind, wanted to drop by and discuss the status of a number of items of mutual interest. We discussed the possible change in French attitude toward Euratom, and Schaetzel inquired about any information obtained from French Minister Ortoli's present visit on this matter.

I said that in my brief contact with Ortoli he had not mentioned Euratom. Commissioner Johnson had traveled with him to Oak Ridge, and Ortoli indicated support for Euratom activities in the basic research area but suggested applied technology and projects of direct national importance should be left to the individual countries.

We discussed European enrichment plans and the proposed U.S. position initiated by the AEC and supported by the State Department to explore making available U.S. diffusion plant technology to foreign countries. Schaetzel expressed strong support for this proposal and cautioned that we not try to oversell the diffusion technology in comparison with the centrifuge. I stated in the long run the economic advantage of one system over the other would be the controlling factor. Schaetzel agreed and also added that there might be an advantage in making U.S. technology available only to organized groups of countries rather than through bilaterals with individual countries. This might solve the problem of offsetting U.K. interest in joining the common market through their offer of making centrifuge technology available to Europe.

The problem of interest by Japan, Australia and Canada in obtaining U.S. diffusion plant technology was recognized; it was agreed some mechanism



UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

UNCL. BY DOE
NOV 86

COPY NO. 3
November 25, 1969

INFORMATION MEETING 974

2:55 p.m., Tuesday, November 25, 1969, Chairman's Conference Room, D. C.

EXECUTIVE SESSION

1. AEC 588/87 - FFTF Project

Commissioner Johnson and Mr. Hollingsworth will discuss with Mr. Fawcett next week. (GM-Helfrich)

2. Personnel Appointment

Approved. (GM)

3. December 4 Meeting of the Under Secretaries Committee re Cooperation with the Netherlands

Commissioner Larson will plan to attend. (AGMIA-SECY)

4. Proposed Press Release distributed by Mr. Faulkner's November 21 Note and Commissioner Johnson's November 24 Revised Remarks on AEC Uranium Policies Before the AIF Conference (See also November 24 Department of State Letter to Mr. Hollingsworth)

Discussed.

W. B. McCool
Secretary

PRESENT:

4:20 p.m.

COMMISSIONERS:

Chairman Seaborg
Commissioner Ramey
Commissioner Johnson
Commissioner Thompson
Commissioner Larson

STAFF:

Mr. Hollingsworth
Mr. Bloch
Mr. Rubin
Mr. McCool
Mr. Kull*
Mr. Shaw*
Mr. Quinn*
Mr. Faulkner*

DISTRIBUTION:

Commissioners
General Manager
General Counsel
Secretary

*Attendance by Topic (s)

LIMITED ACCESS

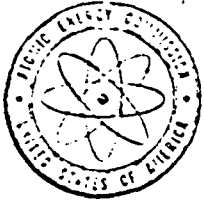
would have to be provided to make the technology available to these countries. Europe's concern about availability of material and the price of separative work that might result from the sale of the U.S. diffusion plants to private industry was generally reviewed. Schaetzel stated that there are many misconceptions on the effect of any sale of the plants that should be clarified and offered to help as the questions arise and information becomes available on our future plans. The status of the IAEA safeguards agreement with Euratom was noted, and Schaetzel indicated he plans to discuss this with Wilhelm Haferkamp and Fritz Helwig shortly after his return to Brussels. The overall future of Euratom and the common market were generally discussed; and no significant conclusions were voiced except that Schaetzel indicated Euratom would have to decide very shortly on a policy, budget and program for Euratom research and development.

At 4:50 p.m. I met with Lord Wynne-Jones, the father of Chris Gallagher. I had become acquainted with him during his stays at Berkeley as a visiting professor in the 1950's. This was largely a social visit. He told me about his activities in the House of Lords in which he is concentrating on explaining the importance of science and technology in today's world. We also discussed the role of nuclear power in alleviating air pollution.

I sent a letter to Dave Packard (copy attached) advising him that the Commission agrees to recommend continuing with the nuclear readiness-to-test program at a reduced level of effort which will complement that of the Department of Defense.

Wednesday, November 26, 1969 - D.C.

At 9:15 a.m. I presided over Information Meeting 975 (notes attached). We approved a paper for use jointly with the State Department in discussions with the White House concerning a plan for cooperation with West European countries in the field of gaseous diffusion technology. We also discussed a patent application matter involving Keith Brueckner of the University of California, San Diego, who has applied for patents on the use of lasers for the practical production of energy from thermonuclear reactions and for the detonation of nuclear weapons. This presents a difficult problem because of the many connections Brueckner has with the AEC through advisory committees' work, at AEC laboratories, and so forth, which may have contributed to his ideas in these fields. We also discussed the memorandum from Elliot L. Richardson (copy attached) enclosing a suggested Memorandum to the President with recommendations that the U.S. invite the Netherlands government to send an appropriate team to Washington for financial and educational discussions on nuclear submarines and also suggesting the setup of an interagency study group to investigate possible further cooperation in the building of such submarines. William Wegner of Admiral Rickover's office said that Rickover opposes such a study. Commissioner Larson will represent us in the meeting of the Under Secretaries at which this will be discussed next Thursday.



UNITED STATES
ATOMIC ENERGY COMMISSION

WASHINGTON, D.C. 20545

NOV 25 1969

ENCL. BY DOE
NOV 86

Honorable David Packard
Deputy Secretary of Defense

Dear Dave:

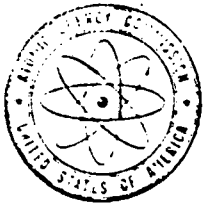
In response to your letter of October 30, 1969, I wish to say that the Commission agrees to recommend continuing with the nuclear readiness-to-test program at a reduced level of effort which will complement that of the Department of Defense. The AEC's program will cost approximately \$16.5 million in FY 1970 and \$8.5 million in FY 1971. Although our FY 1971 budget submission to the Bureau of the Budget did not provide for support of the readiness program, we have since requested that \$8.5 million be included for that purpose. This matter is now pending with the BOB.

The AEC Scientific Advisor for Test Readiness, Dr. F. C. Gilbert of the Lawrence Radiation Laboratory, will work directly with the Defense Atomic Support Agency to develop a new nuclear test readiness plan. I understand that it will take at least several months to prepare the new program document. I am prepared to join with you now in informing the President by letter of our intentions in this matter, with the proviso that our ability to proceed depends upon favorable budgetary action.

Cordially,

A handwritten signature in dark ink, appearing to be "R. L. ...", written over a horizontal line.

Chairman



UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

UNCL. BY DOE
NOV 86

COPY NO. 3
November 26, 1969

INFORMATION MEETING 975

9:15 a.m., Wednesday, November 26, 1969, Chairman's Conference Room, D. C.

1. Fourth FORATOM Conference, Stockholm, Sweden, September 1970

The Chairman suggested Commissioner Larson attend. (Griffin-SECY)

2. AEC 478/120 - 1971 Paris Air Show

Approved. (TI)

3. AEC 1083/144 - Proposed U.S. Offer to Host IAEA Symposium in 1970

Discussed and to be rescheduled. (AGMA)

4. AEC 184/57 - Poland: Request to Purchase AEC Microfiche

Approved. (TI)

5. AEC 1315/1 - College and University Courses Which Include Design of Nuclear Explosives

Approved. (AGMA-AGMR&D)

6. AEC 89/180 - Czechoslovakian National: Proposed Participation at Brookhaven National Laboratory

Approved. (AGMIA)

7. AEC 610/193 - International Cooperation on Gaseous Diffusion Technology
Approved with revisions subject to Commissioner Larson's comments.
(AGMIA-Griffin-SECY)
8. AEC 274/48 - Excessing Unused Portions of Heavy Water Plant
Approved subject to discussion with the Canadians. (P)
9. AEC 1192/78 - Contract with NAS for Support of Committee on Nuclear Science
Approved. (R)
10. Pending Contractual Matters Report No. 336
Noted. (PAR)
11. Agenda for the Week of December 1, 1969 and December 8, 1969
Approved. (SECY)
12. AEC 972/22 - Possible Association of Irvin C. Bupp, Jr., with the AEC History Program
Approved with a revision in Page 3. (SECY)
13. Arrangements for the Enrico Fermi Award Ceremony
Noted. (SECY)
14. AEC 1309/25 - Mandrel III Underground Nuclear Test Program
Approved. (AGMMA)
15. AEC 1309/26 - Execution Data for a Portion of the Mandrel II Events
Approved. (AGMMA)
16. NTS Events for the Weeks of November 24 and December 1, 1969
Noted. (AGMMA)

17. November 17 Letter from Chairman Chet Holifield re the Weapons Program

Mr. Hollingsworth reported a reply is in preparation.

18. AEC 289/70 - CTR Patent Application

The proposed letter is approved as is access for a limited number of persons. (GC-SECY)

19. Dutch Interest in Nuclear Propulsion (Under Secretary Richardson's Undated Memorandum)

The Commissioners approved an AEC position for Commissioner Larson to take in the December 4 meeting. (AGMIA)

20. AEC 1037/64 - Proposed Continuation of Unclassified Technical PNE Talks with the U.S.S.R.

Approved. (AGMIA)

21. AEC 1318/25 - Proposed Letter from the Chairman to Senator Muskie: Environmental Effects of Plowshare

A revised letter is requested (AGM-Rubin)

22. Mr. Hennessey's November 24 Memorandum re Proposed Further Reply to Senator Aiken's Letter of October 28, 1969

Approved. (GC-Rubin)

23. Mr. Price's November 25 Memorandum to the Commissioners re Waste Disposal Permit Issued by the State of Oregon on Trojan Reactor of Portland General Electric Company

Approved. (ADRA)

W. B. McCool
Secretary

10:55 a.m.

PRESENT:

COMMISSIONERS:

Chairman Seaborg
Commissioner Ramey
Commissioner Johnson
Commissioner Thompson

STAFF:

Mr. Hollingsworth
Mr. Bloch
Mr. Brown
Mr. Hennessey
Mr. Rubin
Mr. Kull .
Mr. McCool
Mr. Gaughran*
Mr. Brunenkant*
Mr. Kratzer*
Mr. Marshall*
Mr. Nash*
Mr. Riley*
Mr. Quinn*
Mr. Hewlett*
Gen. Giller*
Mr. McDaniel*
Mr. Slezak*
Mr. F. Johnson*
Mr. Bishop*
Mr. R. Anderson*
Mr. Wegner*
Mr. O'Neill*
Mr. Price*

DISTRIBUTION:

Commissioners
General Manager
General Counsel
Secretary

Attendance by Topic (s)

At 11:05 a.m. I presided over Regulatory Meeting 280 (action summary attached).

At 11:15 a.m. I presided over Commission Meeting 2399 (action summary attached). We approved the plan to negotiate with Atomics International, General Electric, and Westinghouse for Project Definition Phas (PDP) contracts for liquid metal fast breeder reactor demonstration plants; the Commission will support each program to the extent of \$1-1/3 million. We decided to raise the price of heavy water from \$28.50 to \$30.00 per pound in order to compensate for the increased price of production.

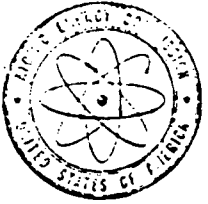
I received a letter from Deputy Secretary of Defense David Packard (copy attached) which supports the AEC request for exemption from the 75 percent construction reduction plan in agreement with my successful appeal to BOB Assistant Director James R. Schlesinger of November 4, 1969. Enclosed with Packard's letter are letters to BOB Director Robert P. Mayo (copy attached) and to the President (copy attached) officially requesting this AEC exemption.

At 12:45 p.m. I had lunch at the All States Cafeteria with Julie Rubin, Justin Bloom, Stan Schneider, and Bob Davids, followed by a walk (all except Rubin) in Lafayette Square which has recently been opened following its 8 month closure for renovation purposes.

At 2:30 p.m. Jerry Tape dropped in to see me. We discussed our budgetary problems and our deepening worry about the cuts in basic research that seem to be developing as a part of the policy of the Nixon Administration as evidenced by the FY 1971 budget. He said that William D. McElroy had suggested at a recent PSAC meeting that perhaps Lee A. DuBridge, McElroy, Thomas O. Paine, Dr. Robert Q. Marston, and I should go to the President to express our concern on this. McElroy had expressed the same thought to me when I ran into him at the airport in Chicago on November 11.

At 3 p.m. I met with John E. Gray (Chairman) and Myron S. Malkin (President) of the Nuclear Utilities Services, Corporation (NUS). I met Malkin when he was at Yale University and spent time at Berkeley in connection with the design and building of the HILAC. This was a courtesy call to acquaint me with the manifold activities of the NUS Corporation.

At 4:05 p.m. I received a telephone call from Roger Batzel (LRL). He said that, as a follow-on to John W. Gofman's and Arthur R. Tamplin's (both of LRL, Livermore) recent visit to Washington and meeting with the JCAE, there is another issue which may appear soon as a subject of public debate. E. A. Martell and Metzger, as a result of the fire at Rocky Flats, have been conducting an environmental survey to determine the levels of Pu-239 in the Colorado area. They will probably be releasing their results in December and will probably raise the question of permissible levels of exposure. Their results will show 13.5 ± 0.7 dpm (disintegrations per minute) of Pu-239 per gram of surface soil at a distance ranging from 2 to 4 miles from the plant. The Pu-239 and Sr-90 ratios range up to 30 times that of Colorado soils at remote sites. This concerns the biological hazard attendant upon the inhalation of plutonium oxide particles. The existing maximum permissible lung burden may be too high by orders of magnitude of 10^3 or 10^4 . Metzger and Martell say there are problems with the present FRC guides.



UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

UNCL. BY D9E
MAY 81

November 26, 1969

Approved HLP

HLP

Date 11/28/69

H. L. Price, Director of Regulation

ACTION SUMMARY OF REGULATORY MEETING 280, WEDNESDAY, NOVEMBER 26, 1969,
11:05 A.M., ROOM 1115, D. C. OFFICE

SECY:FG

Commission Business

1. AEC-R 18/48 - Proposed Amendment to 10 CFR 40 - Exemption for Piezoelectric Ceramic Containing Source Material

Approved. (RPS)

Commissioner Larson concurs.

The Commission requested discussion at the December 16 Regulatory Meeting of procedures under which previously published proposed rules for public comment are resubmitted for publication as effective rules. (ADRA)

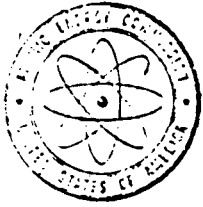
2. AEC-R 123/3 - Proposed Amendments to 10 CFR Part 150 to Modify the General License for Recognition of State Licenses

Approved. (SLR)

Commissioner Larson concurs.


W. E. McCool
Secretary

cc:
Chairman Seaborg
Commissioner Ramey
Commissioner Johnson
Commissioner Thompson
Commissioner Larson



UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

DECL. BY DOP
NOV 26

R. E. Hollingsworth, General Manager

November 26, 1969

Approved

REH

Date

[Handwritten signature]
11/26/69

ACTION SUMMARY OF MEETING 2399, WEDNESDAY, NOVEMBER 26, 1969, 11:15 A.M.,
ROOM 1115, D. C. OFFICE

SECY:WLW

Commission Business

1. AEC 588/86 - LMFBR Demonstration Plant Program

Approved, with Commissioner Johnson abstaining. (DC)

Commissioner Larson concurs.

The Commission agreed this decision could be announced at the AIF/ANS
Conference on December 1, 1969. (RDT/SECY)

2. AEC 720/210 - Heavy Water: Price Revision

Approved.

Commissioner Larson concurs.

Commissioner Johnson requested a briefing on alternative methods
of inventory pricing.

(OC)

3. AEC 274/49 - Additional Heavy Water for Canada

Approved. (AGMIA)

Commissioner Larson concurs.

[Handwritten signature]
W. B. McGool
Secretary

cc:

Chairman Seaborg
Commissioner Ramey
Commissioner Johnson
Commissioner Thompson
Commissioner Larson

THE SECRETARY OF DEFENSE
WASHINGTON, D.C. 20301

25 NOV 1969

Honorable Glenn T. Seaborg
Chairman, Atomic Energy Commission

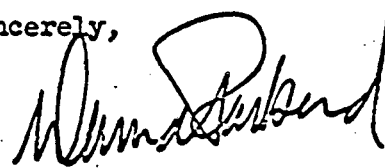
Dear Mr. Chairman:

We have carefully reviewed your list of construction projects provided us by letter dated September 25, 1969, in which you requested our support in obtaining their exemption from the construction reduction plan as urgent national security programs under the terms of paragraph 2.f. of Bureau of the Budget Bulletin 70-5.

The high priority of these projects is recognized, particularly as to their support of nuclear weapons and the Naval reactor programs of the Department of Defense. Under strict application of the guidelines provided by the Bureau of the Budget, we find many high-priority Department of Defense projects will have to be either deferred or accommodated within the 25 per cent allowance. In applying these guidelines to the projects you submitted, we have determined that \$34,538,000 should fall within the definition of being urgently required for national security. I am requesting concurrence for exemption of this amount by the Director of the Bureau of the Budget and approval for exemption by the President.

While the remaining projects suggested for exemption by the Atomic Energy Commission are not being included in the exemption requested of the President, their high priority is recognized and we would appreciate a favorable determination for their inclusion within the Atomic Energy Commission's 25 per cent allowance.

Sincerely,



Enclosures

THE SECRETARY OF DEFENSE
WASHINGTON, D.C. 20301

25 NOV 1969

Honorable Robert P. Mayo
Director, Bureau of the Budget

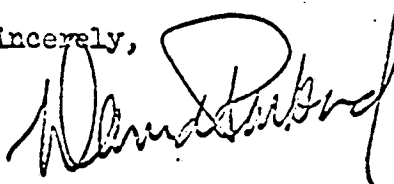
Dear Mr. Mayo:

The attached memorandum from me to the President requests his approval for the exemption of certain Atomic Energy Commission construction projects for new weapons production capabilities and increased capacity required for the production of the warheads for nuclear weapons programs in support of the Department of Defense.

These projects are judged to meet the criteria specified in Bureau of the Budget Bulletin 70-5 dated September 12, 1969 for exemption from the construction reduction plan. The amount being requested for exemption is \$34.538 million.

I would appreciate your concurrence on these exemptions.

Sincerely,



Enclosure

THE SECRETARY OF DEFENSE
WASHINGTON, D.C. 20301

UNCL. BY DOE
NOV 86

25 NOV 1969

MEMORANDUM FOR THE PRESIDENT

SUBJECT: Atomic Energy Commission FY 1970 Proposed
Construction Exemptions

Submitted herewith for your consideration and approval for exemption from the construction reduction plan are proposed Atomic Energy Commission new construction projects that total \$34,538,000.

My review of these projects, which support the new weapons production capabilities and increased capacity required for the production of warheads for the Department of Defense nuclear weapons, indicates that they are urgently required for the national security and should therefore be exempted under the terms of paragraph 2. f. of Bureau of the Budget Bulletin 70-5. These projects are primarily significant in terms of timely and assured warhead production for MINUTEMAN III, POSEIDON, LANCE and SAFEGUARD programs.



Enclosure
As stated

When Gofman and Tamplin went to see the JCAE, the Committee asked why they weren't informed when these kinds of matters are coming up. As a consequence, they propose to send a letter to Hosmer to apprise him of the above. Batzel said he has talked to John Totter and has given him the information he just gave me. Batzel is considering asking Gofman, Tamplin, and Geesaman (who works with Tamplin) to send these data to me, with the suggestion that I notify the JCAE. After reflection, I asked that they send the letter to Totter, with a copy to me, and then we will take care of notifying the JCAE. Batzel said he would alert Totter to this. I told Batzel that I had been told that Holifield gave Gofman a hard time, but maybe Gofman wasn't all that cowed by it. Batzel said he wasn't, at least not according to the report he had from Gofman. Gofman told him it was a very good two-hour session but that the JCAE wanted to be sure to be kept informed.

Dianne's friend, Amy Ballou, had dinner and spent the night with Dianne. (Jody Cobb arrived about 10 p.m. to spend the Thanksgiving holiday period with us.)

Thursday, November 27, 1969 - Thanksgiving Day

Lynne and Bill arrived about 3 a.m. with our Chrysler and a U-Haul trailer filled with their effects. They have closed out their Cambridge apartment and are moving to their new apartment in Washington at 1702 Summit Place, N.W., Apartment 504.

Jody, Eric, Scott Luria, and I took a hike in Rock Creek Park, starting at Pierce Mill going north on the White Horse Trail as far as Fort DeRussy and back to our starting point on the Black Horse Trail. We met Martin Agronsky and his family and friends on the way.

We had our Thanksgiving dinner with Lynne and Bill, Jody, Allyne Snyder, Eric, Helen and me. After our dinner Lynne and Bill, with Eric's help, moved their things into their new apartment.

Off and on during the afternoon I watched a number of football games on TV, including the San Francisco 49'ers-Dallas Cowboys game which ended in a 24-24 tie.

Dianne's friend, Brendan Canary, joined us for supper and spent the night with Dianne. After supper we called the Jasaitises in Oakland and talked with Pete and Steve who were having dinner there.

Friday, November 28, 1969

At 10:20 a.m. I called Sam Nabrit and told him I am planning a trip to Africa from January 3 to 17, and I am trying to get a Government plane. I asked whether he would be interested in joining the group. He said he has to be in Atlanta on January 9, but he will check on that and will let me know.

At 12:45 p.m. I had lunch with Newbold Noyes, Editor of the Evening Star, and John H. Kauffmann (President), Crosby N. Boyd (Chairman of the Board), Godfrey W. Kauffmann (Vice President and Treasurer), John W.

Thompson, Jr. (Vice President and President of the Evening Star Broadcasting Company), Rudolph Kauffmann II (Associate Editor), John H. Cline (Associate Editor), I. William Hill (Associate Editor), Charles Seib (Managing Editor), and Smith Hempstone (Chief Editorial Writer) at the Evening Star Building at 225 Virginia Avenue, S.E. The purpose of the luncheon was to afford the opportunity for a discussion with me on a wide range of subjects. We discussed and I explained the environmental effects of nuclear power plants, the status and plans for breeder reactors and fusion power, the planned role for nuclear power in space (manned Mars missions, moon colonization, and so forth), general outlook for the future of mankind (I said we will make it all right), the value of the non-proliferation treaty and of arms limitations, the role of scientists in political positions in the future technological world and the problems of student and faculty unrest. I mentioned, as an example of the manner in which newspapers might help, the annual Science Talent Search held in Washington, which at present is not covered adequately by the Washington newspapers. Noyes indicated he would make an effort to have the Evening Star do a better job on this. Noyes inquired as to my future tenure on the AEC and indicated that he would like to have future meetings of this type.

West Germany signed the Non-Proliferation Treaty today, which is a crucial step in connection with the possible success of putting this treaty into effect.

I sent a letter to Senator George D. Aiken (copy attached) today in further response to his October 28, 1969, letter concerning the Commission's plans for public rule making consideration of a practical value finding under section 102 of the Atomic Energy Act.

I sent a letter to Congressman Chet Holifield today regarding the proposed Amendment to the 1958 U.S./U.K. Mutual Defense Agreement (copy attached).

Attached is a copy of the announcement to be released on December 1, 1969, regarding contract negotiations leading toward a breeder reactor demonstration plant.

At 3:15 p.m. I received a telephone call from Congressman Chet Holifield. I told him I had lunch today with the editorial group of the Evening Star; we talked about the environmental effects of nuclear power. I said I thought the meeting was very fruitful; in fact, there will already be an editorial today. Holifield said he was pleased to hear this and then expressed himself very strongly against the Washington Post, and to some extent, the New York Times. Holifield said he is working on his speech for delivery at the AIF meeting in San Francisco next week. He said he will strike at the Forum very hard. He will also mention two important problems: (1) opposition to nuclear power based on fear of pollution, and (2) the fast breeder reactor.

He will speak of AEC-JCAE-industry cooperation, and will point out that this was lacking in 1954, which resulted in the Dixon-Yates controversy; that proposal was made during the Eisenhower-Nixon Administration by former AEC Chairman Strauss, and it was supported by a large segment of finance and industry. He is going to say he is afraid that history is about to repeat itself in the proposal to sell the diffusion plants. He



UNITED STATES
ATOMIC ENERGY COMMISSION

WASHINGTON, D.C. 20545

NOV 28 1969

UNCL. BY DOE
NOV 86

Honorable George D. Aiken
United States Senate

Dear Senator Aiken:

I am writing in further response to your letter of October 28, 1969, concerning the Commission's plans for public rule making consideration of a practical value finding under section 102 of the Atomic Energy Act. The meeting with Commissioner Ramey suggested in my letter of November 12, 1969, did not, unfortunately, prove practicable on a timely basis, and the purpose of this letter is to set forth the basic thoughts which Commissioner Ramey had intended to express on our behalf.

As I know you are aware, the Commission has long been of the view that the practical value distinctions between developmental and commercial nuclear power facilities, as embodied in the present provisions of our Act, no longer bear a desirable correspondence with current licensing needs. We have stated this view in testimony before the Joint Committee in 1966 and subsequent years, in our briefs in judicial proceedings where contests over these matters are pending decision, and in the proposals for legislative abolition of the practical value distinctions which we have submitted to this and the last Congress. Those proposals, I would note, support prelicensing antitrust review of power reactor license applications.

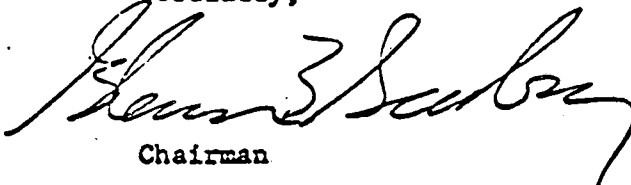
While the Commission has declared its opinion as to what the law should be, we have been obliged, of course, to apply the law as it presently exists. From the time the practical value matter first came under consideration, it has been the Commission's position that a section 102 finding for a facility type entails, as one ingredient, sufficient demonstration of its cost of construction and operation as to provide a sound basis, with reasonable extrapolation, for a reliable estimate of the economic competitiveness of power produced in this type of plant with power that would be produced in a comparable conventional power plant that would be constructed at the same time and place. Our intention to initiate rule making reconsideration of the practical value question during the first half of 1970 is based on the belief that sufficient information as to the cost of construction and operation of certain

types of larger-sized light water reactors could then be available to provide a sound basis for a section 102 determination.

Your letter of October 28 urges that the Commission proceed now to set up a practical value rule making proceeding on Dresden No. 2, which is scheduled for operating license consideration within the next few months. This, in our view, would not be legally possible, even apart from the matters outlined above, since the practical value finding contemplated by section 102 must be made as to a "type" of facility and not as to a specific proposed reactor.

I should like to emphasize one further thought. As Commissioner Ramey testified before the Joint Committee on November 18, 1969, my colleagues and I are strongly of the view that legislative action appears necessary to permit the most effective treatment of the practical value matter and of the broader licensing considerations related thereto. I would only add my renewed assurance that the Commission is prepared to work with you and the other members of the Joint Committee to achieve a resolution of the practical value matter which will best serve the public interest.

Cordially,

A handwritten signature in cursive script, appearing to read "Henry S. Scurby".

Chairman



UNITED STATES
ATOMIC ENERGY COMMISSION

WASHINGTON, D.C. 20545

NOV 28 1969

Honorable Chat Holifield
Chairman
Joint Committee on Atomic Energy
Congress of the United States

UNCL. BY DOE
NOV 86

Dear Mr. Holifield:

Thank you for your letter of November 14, 1969, regarding a proposed Amendment to the 1958 U.S./U.K. Mutual Defense Agreement.

The Amendment was approved by the President on October 6, 1969, and signed by representatives of the U.S. and U.K. Governments on October 16, 1969. As is the customary practice after signature, the Department of State has transmitted the Amendment to the White House for submission by the President to the Congress. The concerns set forth in your letter have been brought to the attention of the Department of State and the White House by the AEC.

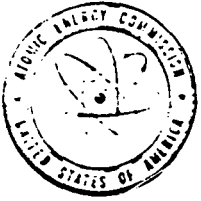
Enclosed is a copy of an article by Chapman Pincher which appeared in a London newspaper and which was the basis for the Washington Post article which you referred to in your letter. This article is misleading in regards to the supply of lithium tritide and U-235. The British have informed us that their stocks of source, byproduct, and special nuclear materials are sufficient for weapons production for at least the next decade. Therefore, they have not requested these materials and the proposed Amendment does not provide for such transfers.

Cordially,

A handwritten signature in cursive script, appearing to read "Bernard S. Beuker".

Chairman

Enclosure:
Article ~~fm~~ Daily Express
dtd 11/10/69



UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

NOV 28 1969

Chairman Seaborg
Commissioner Ramey
Commissioner Johnson
Commissioner Thompson
Commissioner Larson

UNCL. BY DOE
NOV 86

ANNOUNCEMENT OF CONTRACT NEGOTIATIONS LEADING TOWARD A BREEDER
REACTOR DEMONSTRATION PLANT

Enclosed for your information is a copy of an announcement relating to negotiation of contracts for conduct of the project definition phase of the liquid metal fast breeder reactor demonstration program.

The announcement, approved as part of AEC 588/86 by the Commission on November 26, was changed to reflect the large number of utilities associated with the three reactor manufacturers. We plan to release it at 12 noon EST next Monday, December 1. This time is established so as to permit announcement of the contract negotiations at the Atomic Industrial Forum's session on the breeder reactor program.

A handwritten signature in cursive script, reading "John A. Harris".

John A. Harris, Director
Division of Public Information

Enclosure

cc: R. E. Hollingsworth, General Manager

UNCL. BY DOE
NOV 86

AEC ACCEPTS THREE PROPOSALS LEADING TOWARD A LIQUID METAL FAST BREEDER REACTOR DEMONSTRATION PLANT

The Atomic Energy Commission is accepting as a basis for contract negotiations the proposals from Atomics International Division of North American Rockwell Corporation, General Electric Company, and Westinghouse Electric Corporation submitted in response to the Commission's invitation for proposals to participate in a liquid metal fast breeder reactor demonstration plant program.

The contracts to be negotiated will pertain to what is known as the project definition phase (PDP) of the program. The purpose is to define the technical and economic risks of the total project, and to determine whether there is a sufficiently well understood basis for entering into a cooperative arrangement for the construction and operation of a liquid metal fast breeder reactor (LMFBR) demonstration plant.

The total cost of the project definition effort by the three proposers is estimated at \$8.2 million. Of this, not more than \$4 million will be borne by the AEC under the contemplated contracts. The remainder will be borne by the three proposers and the electric utilities associated with them in the program. Additionally, these firms are conducting substantial privately financed research and development on liquid metal breeder reactor technology with electric utilities' participation. In this regard, there are over 85 public and private electric utilities associated with the three nuclear reactor manufacturers in their proposed demonstration plant efforts. It is expected that the three PDP contracts will be completed within about one year.

Based on PDP results and further proposals from the PDP participants, it is expected that one reactor manufacturer-utility team will be selected for a cooperative arrangement

(more)

for construction and operation in the 1970s of a 300 to 500-electrical megawatt LMFBR demonstration plant. Such an arrangement is subject, however, to the necessary authorizations and appropriations.

The breeder reactor, while providing heat for the generation of electricity, produces at the same time more fissionable nuclear fuel than it uses. In this breeding process, atoms of non-fissionable uranium-238 are converted, or "bred," through neutron bombardment into fissionable atoms of plutonium-239.

said he wants them to be warned that there is going to be a fight in the JCAE and in the Congress. He said we may as well face the fact that the Forum started the Dixon-Yates matter with Kenneth Nichols under Strauss, and Nichols is the one working on this with Flanigan. He will also say he is not satisfied with the way the fast breeder program is going.

Holifield then told me about the meeting the JCAE had with Gofman and Tamplin when they appeared before the Muskie Subcommittee. Holifield said he asked them why they were speaking out the way they were in California, Minnesota, Vermont, and before the Muskie Subcommittee. Gofman said he sent his paper to the AEC but couldn't get any reaction, and was, therefore, forced to go to the public. Holifield said he told them it was a mistake to take their "theories" to the laymen, rather than to their peers. Holifield said that Bauser later told him that they felt a little contrite about the methods they had pursued. Holifield suggested that, if I see them in California, I might assure them that I will arrange for the presentation of their theories before the very best people.

Holifield said that the tide might be turning in favor of nuclear power. In Vermont, the legislature has moved toward a state siting authority. He mentioned that New York has also moved in this direction; and he and Hosmer wrote Governor Reagan, urging California to do likewise. Holifield will tell the Forum that they may well consider getting behind this type of movement throughout the U.S. It is state-wide authority that is needed, rather than having the siting power controlled by local officials.

Lynne, Bill, Jody, and Brendan Canary had dinner with our family. Brendan spent the night with Dianne. Lynne and Bill spent the first night in their new apartment.

Saturday, November 29, 1969 - D.C.

I worked in the H Street office until 1 p.m. and then Justin Bloom and I had lunch at the GJS Ranch (18th Street).

I took a hike with Bill, Lynne, Jody and Suki in Rock Creek Park, starting at Pierce Mill and going north on the White Horse Trail to Fort DeRussy and back on the Black Horse Trail. Suki pulled a muscle jumping after a shrew near Military Road; so, while Lynne and Bill waited with her, Jody and I went to get the car to pick her up.

Bill, Lynne and Jody had dinner with us.

Eric spent the day and night with the Canaries.

Sunday, November 30, 1969 - Washington - San Francisco

Jody and I took a hike (without Suki) in Rock Creek Park, starting at Oregon and Nebraska Avenues, going north on the White Horse Trail to Cross Trail 3, then back on the Black Horse Trail to Cross Trails 3 and 4 and returning to our starting point.

Eric and I, accompanied by Justin and Mark Bloom, went to Kennedy Stadium to see the Los Angeles Rams-Washington Redskins football game, which the Rams won, 24-13.

Julius Rubin and I left Dulles Airport about 7 p.m. (an hour late) on TWA Flight No. 53 and arrived in San Francisco about 8:30 p.m. Pete and Ann Woodhouse met me at the airport. While Julius rode with Ward Blackmon to the St. Francis Hotel, I rode in Pete's Volvo to Palo Alto to pay a short visit to Anne's apartment on the edge of the Stanford campus, 7-D Hulme House, Escondido Village, Stanford, California, 94305. Her roommate is Kathryn Strachota, whom I didn't have the opportunity to meet. I did meet Kathryn's boy friend, John Brimm, a medical student. After we left Anne, Pete drove me to the St. Francis Hotel, where I checked into Room 601.

Monday, December 1, 1969 - San Francisco

I had breakfast in the English Grill of the St. Francis Hotel with Julie Rubin and Dr. Jean Van der Spek of BelgoNucleaire. Van der Spek repeated his previous invitation to me to visit the site of their proposed uranium enrichment plant during my visit to the Congo sometime around January 5 to 10. He said that BelgoNucleaire is involved in the building of a nuclear fuel fabrication plant with an annual capacity of 20 tons of 4 percent Pu-239 fuel (i.e., 800 Kg of Pu-239).

We met and talked to numerous attendees of the AIF-ANS Conference at the Registration Desk on the mezzanine floor of the St. Francis Hotel. (Among those I saw and who sent greetings to Helen was Marilyn Howe).

I was interviewed on tape for the RCA radio network by Bill Abbott. He asked questions on the environmental effects of nuclear power, the use of nuclear energy and isotopes in medicine and the use of nuclear energy in space.

Rubin and I then rode to Berkeley with Blackmon. I dropped some mail and speeches for Pete at his apartment and then we went on to visit with the people in the Chemistry Building (70A) of the Lawrence Radiation Laboratory.

I talked to Doral about her file material related to my work at the Metallurgical Laboratory and took some of the material, including laboratory notebooks.

Rubin and I then had lunch with Perlman, Ghiorso, Hyde, Cunningham and Asaro in Perlman's office. We discussed Perlman's and Asaro's work on identifying ancient pottery by neutron activation, Ghiorso's work on elements 103, 104 and 105, and my forthcoming visit with the Zinner Committee.

We then went to see Jim Harris and the setup in the Hot Laboratory (Building 70--where I met Emma Sabeskis, John DePew and Jay Weidenfeld). We also saw the He³ cyclotron.

We saw Stan Thompson, who told me about his desire to add Reiner C. Haese (a German NATO fellow now at ORNL) to his group, as well as to retain Tsang and Myers.

We then went up to the HILAC Building to see Ghiorso, who showed us the experimental setup they used in the chemical identification of element 104.

Rubin and I then went to University Hall, where we were met by Dick Wolfe, who took us to Room 150 for my meeting with the Zinner Committee. This committee was appointed by the Academic Council to consider the appropriateness of the present relationship between the University and the research laboratories at Livermore and Los Alamos. Present during the meeting were: Paul E. Zinner, Chairman (Political Science, Davis), Tom L Allen (Chemistry, Davis), George W. Wetherill (Geophysics and Geology, Los Angeles), Randy Wedding (Biochemistry, Riverside), Addison Mueller (Law, Los Angeles), Carl Helmbolz (Physics, Berkeley) and Rubin.

In answer to questions in a session lasting an hour and 10 minutes, I described the advantages to the AEC and to the University of retaining the present relationship between the University and Livermore and Los Alamos. I also suggested keeping the present relationship between the Lawrence Radiation Laboratories at Berkeley and Livermore but said that was less important. I suggested that the Berkeley faculty and administration pay more attention to the Livermore Laboratory (copy of minutes of meeting attached).

Rubin then returned to San Francisco, and I rode with Blackmon to Davis where I met Steve in his room (120) in Beckett Hall. Tung Fu, Mike Lowery and Steve's roommate, Paul Schwabe, were also there. We rode with Blackmon to Hammarskjold House of the Tercero Complex, where I met Monti Reynolds and others. We all went to the Dining Hall, where Dave joined us (he had a class in genetics from 5 to 6 p.m.). I had dinner with a group of about 25 people at three or four tables. In the course of the dinner and before and after my talk I met a number of people, including Dave Crawford (a fellow occupant of Dave's suite in Hammarskjold House and a Pre-Med student), Dianna Leggett (daughter of California Congressman Robert Leggett), Sarah Woerner (who types Dave's papers), and Donna Fazacerly.

After we returned to Hammarskjold House, some pictures were taken of me and Dave, Steve and Reynolds. Dave introduced me to a group of about 75 students; my talk consisted of a description of the AEC, including a short history, and a description of the peaceful uses of nuclear energy, including nuclear power, controlled fusion, nuclear power in space, Plowshare, the use of radioactive isotopes in medicine, agriculture and industry, etc. This was followed by questions during which I brought out the importance of the NPT, arms limitation, and described my visits to Hungary, Romania, Czechoslovakia, the Soviet Union, etc.

Reynolds then took Dave, Steve, Paul, Mike and me on a tour of Hammarskjold House. Reynolds asked if I could send him (on loan) an AEC movie on the peaceful uses of nuclear energy and three or four framed pictures that they could use on their walls. He said he would write me regarding these.

We said goodbye at Hammarskjold House and then Dave, Steve, Mike and I visited Tung Fu in his room (210) in Indio House of the Regan Complex. He showed us the excellent paintings he has done.

I then said goodbye and rode back to the St. Francis Hotel in San Francisco with Blackmon (who had heard my talk at Hammarskjold House).

The draft lottery was held today. Dave came out No. 316, a number so high that he is unlikely to be drafted. Pete came out No. 313.

Tuesday, December 2, 1969 - San Francisco

I had breakfast in the English Grill with Rubin. After breakfast Bill Johnson introduced me to Bill Kennedy (an attorney with G.E.) who described a plan for meeting the forthcoming crisis on the effects of nuclear power on the environment by creating a high level panel, including congressional involvement, to study the environment on a broad basis.

ENCL. BY DOE
NOV 86

Minutes

Monday, December 1, 1969
Room 150, University Hall
BerkeleyD R A F T

Present: T. L. Allen, A. C. Helmholtz, A. Mueller, R. T. Wedding, G. W. Wetherill, and P. E. Zinner, Chairman. The committee heard testimony from Dr. G. T. Seaborg, Chairman of the Atomic Energy Commission.

Dr. Seaborg arrived at 3:00 p.m. accompanied by his special assistant Mr. Rubin.

Professor Zinner welcomed Dr. Seaborg and expressed the committee's appreciation of his willingness to be questioned on matters pertaining to the University's relationship with the scientific laboratories at Livermore and Los Alamos.

In answer to a question from Professor Zinner on the freedom the laboratories have in their relations with the government Dr. Seaborg stated that the directors and scientists in the labs suggest ideas concerning the programs and they have rather free rein in initiating these ideas within some broad constraints. Their over-all assignment has to be consistent with the mission of the AEC. It is difficult to say if they have more latitude than they would have under industrial or civil service management.

The University has been a strong manager in the sense that it has protected a fair amount of freedom for the laboratories. On the other hand one could imagine other arrangements with equally strong management.

Although University management is not a crucial factor, the University has been a good representative of the laboratories. It would be hard to be better. It is possible that the Commission would try to restrict the freedom of a new, inexperienced manager.

In regard to the budget, Dr. Seaborg stated that the situation is very complicated. Every lab always asks for much more money than it receives. The ultimate decision is made by the Congress and all along

page 2

the way from the Division of Military Applications of the AEC, through the Bureau of the Budget paring takes place.

In response to a question from Professor Wedding, Dr. Seaborg said that non-weapons work in the laboratories now amounts to about 50% of their budget. Some commissioners, including Dr. Seaborg, favor maximizing non-weapons work. In general there has been a tendency toward increasing emphasis on non-weapons work and it is likely to continue.

The laboratories have some leeway in using money earmarked for weapons development to cover other, related projects. Non-weapons oriented research programs have to be consistent with the over-all purposes for which money is allocated to the laboratories. But these programs are initiated by the laboratories (e.g. the meson facility at Los Alamos) with very little prodding from the Division of Research of the AEC.

With regard to AEC control of personnel in the laboratories Dr. Seaborg explained that the Commission has effective veto power which it has never used because it has not had to. The director and associate directors are subject to approval by the AEC. So far the candidates suggested by the University have always been approved.

Security procedures in general are under AEC auspices, although actual clearance is processed by the Civil Service. In this sense the AEC also has veto power over appointments in the laboratories.

Dr. Seaborg agreed that security regulations in regard to visitors could be relaxed, but he did not see this as an immediate prospect. He doubted that the University had any leverage against the government in this respect. He was not sure that he agreed with Dr. Teller's suggestion that all weapons work be unclassified. But more unclassified work could be put outside the gate. Some of it already is.

page 3

Dr. Seaborg admitted that classifications and security cause an increasing problem for the University. This is related to changing attitudes of people. There ought to be some way of explaining the need for such work under University auspices. The AEC is aware of the problem and is working on it to the best of its ability.

In response to a question from Professor Zinner, Dr. Seaborg noted that the Federal Government derived benefits from the University's management of the laboratories. The atmosphere in the laboratories is better. The prestige of the University helps to make the laboratories much stronger than they would be under any other method of operation.

A discussion ensued concerning the management of other laboratories like Oak Ridge, Brookhaven, Argonne and comparisons were made with the University's management of Livermore and Los Alamos, which were not unfavorable to the University.

Dr. Seaborg saw no liabilities to the Federal Government stemming from the working relationship with the University. The only thing that is worrisome is the changing attitude of people, particularly students, that there is something wrong in the University's being involved in weapons work.

The University is seen by the government as a hard negotiator. That it gets such a low management fee is due to the Commission's feeling that as a non-profit organization it should receive a small fee if any.

Concerning the specifics of government management Dr. Seaborg referred to the prevailing sense of satisfaction in the laboratories and the smoothness of the operation in comparison with others. He agreed that the Board of Regents was not very assertive in running the laboratories, but he felt this was consistent with the behavior of other boards of directors.

page 4

Answering Professor Wedding, Dr. Seaborg said that it would not be possible to respond to a University request in the middle of a contract period to increase work on the peaceful uses of nuclear energy because the conditions for weapons work would be too firmly established.

Professor Mueller expressed concern about the non-utilization of laboratory resources for educational purposes. Dr. Seaborg gave a brief history of attempts to develop closer relations between Livermore and Berkeley. They foundered because of personality conflicts and attitudinal differences. If these problems of human relations could be solved it should be possible to make better use of laboratory facilities for all sorts of purposes. The meson factory at Los Alamos will certainly lead to closer cooperation with University scientists from all over the country. Opportunities exist in Livermore in the Bio-medical area, in work on super heavy elements, and in controlled thermonuclear research. The AEC is desirous of closer relations of this sort, but there is not much it can do. The AEC would have difficulty getting even \$ 50,000 for research in environmental pollution, but it would be willing to try.

Dr. Seaborg did not agree with suggestions that the same work done at Livermore and Los Alamos could be done elsewhere. In his view it would take a number of years to develop the same capacity. One could not just transfer the budget and go right on as if nothing had happened.

Dr. Seaborg felt that the University could retain its relationship with Livermore and sever it with Los Alamos. He intimated, however, that Washington would take a dim view of any proposal for the separation of Los Alamos from the University. He also indicated preference for maintaining the administrative arrangement now in effect concerning the Lawrence Radiation Laboratory at Berkeley and Livermore, but was not dismayed by the prospect of separating them, provided they both remained with the University.

Minutes - Special Committee
December 1, 1969

page 5

Asked by Professor Zinner if he had any suggestions for improving the relationship between the University and the laboratories, Dr. Seaborg replied that a show of greater interest in them on the part of the faculty might be helpful. On the administrative level a review committee appointed every five years would not be objectionable.

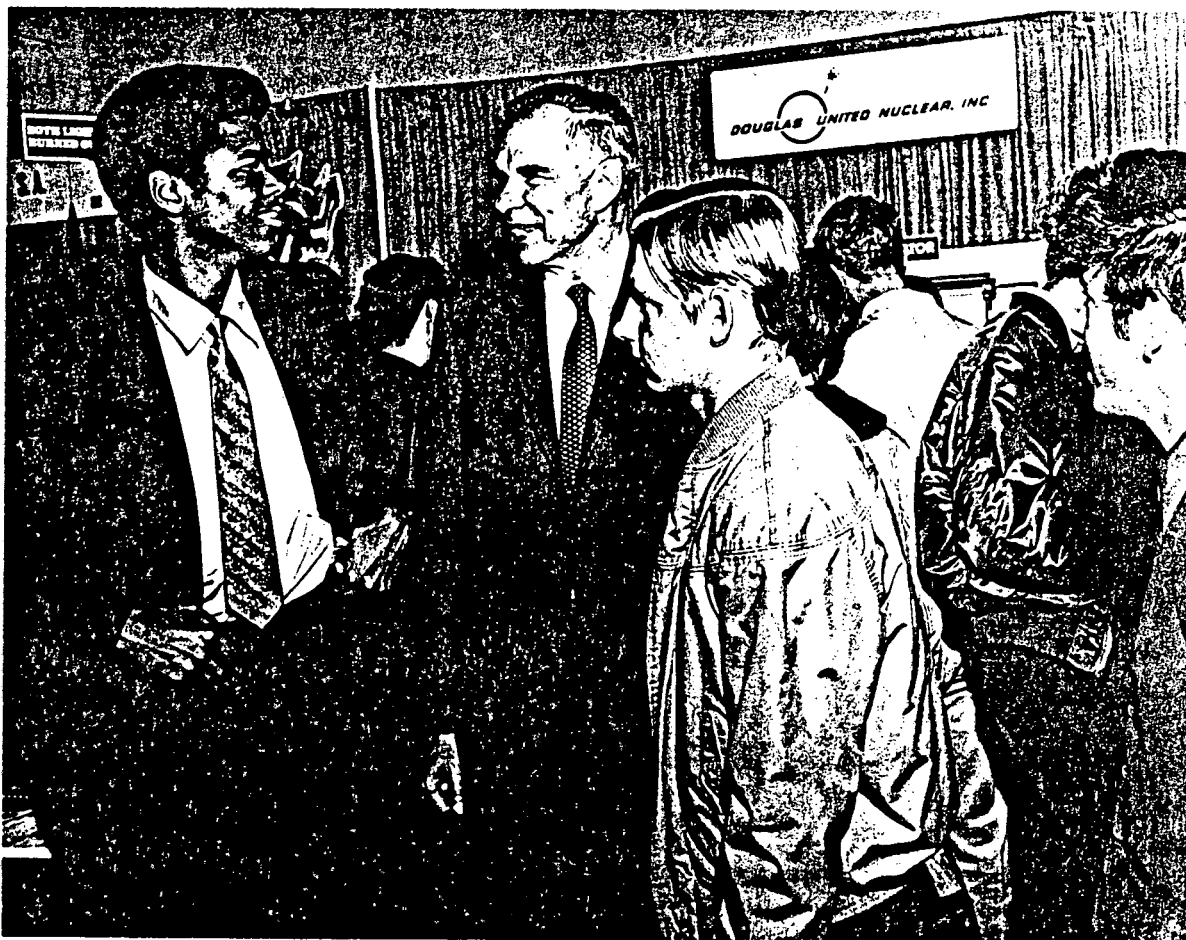
Professor Zinner thanked Dr. Seaborg for sharing his views with the committee. Dr. Seaborg left at 4:10 p.m.

P. E. Zinner, Chairman
Special Committee

PEZ/mt

Rubin and I walked to the Hilton Hotel where the program on "Criticality Problems of Synthetic Actinide Elements" was being held. After being introduced by Paul Gast, I gave my talk "The Synthetic Actinides - From Discovery to Manufacture."

We then went to the Veterans War Memorial Building Auditorium for the "Youth and the Atom" Program. Just before it was time for my talk, I was asked for a quick TV interview by Van Amburg of Channel 7 in San Francisco. His questions concerned the peaceful uses of nuclear energy and the future for applications for nuclear energy. I was introduced by John Bonner (Executive Vice President, PG&E) and gave my slide lecture on the transuranium elements. I spoke to an audience of about 750 students.



Visiting with students at the Atom Fair, San Francisco; December 2, 1969.

Following my lecture I made the usual tour of the Atom-Fair where a number of pictures were taken. After the tour box lunches were provided; and Julie and I were joined by Bill Perkins, Charles Keenan (Yankee Electric) and Myra. I was greeted by Warren Hyman, whom I remember as being at Berkeley in the 1950's.

We returned to the St. Francis Hotel for a brief stop and then returned to the Hilton Hotel for the Paul Aebersold Memorial Lecture. I was introduced by Gordon Brownell (of the ANS Isotopes and Radiation Division) and was presented a framed certificate of appreciation by Dr.

Ira Morgan (Director, Institute of Nuclear Studies, University of Texas) for presenting the Aegersold Memorial Lecture. My lecture, "The Expanding Role of the Atom in the Humanities", seemed to be well received by the about 200-300 people in the audience. I spoke to Micky Aegersold, as well as to Paul, Jr. and one of their daughters, Connie.

Just prior to the Fermi Award Ceremony Wally Zinn and I held a press conference, which was attended by Bob Adamson (Nucleonics Week), William Cook (Newsweek), Cyril Darby (Atom, London), Craig Dixon (Power Engineering), Robert Gillette (San Francisco Examiner), Paul Gorman (UPI Photos), Roy Gross (Nuclear Canada), Paul Leech (Electrical World), George McManus (KCBS & CBS News), Ken Owens (Electric Light and Power), Christopher Smith (Business Week), S. S. Smith (Nuclear Engineering), Pearl Marshall (Science News), Jim Hatchett (Hosmer News Service) and also representatives from the Voice of America and photographers from the San Francisco Chronicle and the San Francisco Examiner.

The Fermi Award Ceremony was very well attended with about 500 people seated and standing in the audience. I introduced the platform guests--Commissioners Ramey, Johnson, Thompson and Larson and Wally Zinn,



Presentation of Enrico Fermi Award, San Francisco; December 2, 1969.
L to R: Dr. Walter Zinn, Seaborg.

Howard Vesper, Nick Palladino and Sherman Knapp. I then made my remarks (about 15 minutes) and presented the 1969 Enrico Fermi Award to Wally Zinn who made some brief acceptance remarks. Wally and Mrs. Zinn (Terry), the other Commissioners and I then received all the guests. Pete, Bob Jansen and his friend, Susan Brown, attended the ceremony as well as the buffet that followed.

The Zinns, Rubin and I then rode up to the Fairmont Hotel with Ward Blackmon for a buffet dinner hosted by Combustion Engineering for Wally Zinn and their guests. It was an elaborate affair with cocktails and delicate hors d'oeuvres before dinner followed by a sit-down dinner. I sat at a table with the Zinns; Wally's sons, Bob and John, John's wife and Wally's stepson; Norman Hilberry; Francis Andrews (Zinn's secretary); Howard Winterson (Vice President, Combustion Engineering); Commissioners Thompson, Larson and Ramey; and Mr. MacDonald (a CE salesman who was master of ceremonies for the occasion).

After the dinner I rode back to the St. Francis Hotel with Julie where we met Arnie Fritsch and John Conway. The four of us walked back up the hill around the Fairmont and returned to the St. Francis.

Attached is a copy of the biweekly status report to the President which Justin Bloom signed in my absence.

Wednesday, December 3, 1969 - San Francisco

I had a phone call from Abbadessa and Bloch (in Washington) to tell me the results of the House-Senate conference committee meeting on the AEC FY 1970 budget. They restored \$22 million of operating expenses which leaves us with a \$4 million problem that Abbadessa feels we can cover by sales of heavy water to Canada. They restored \$6 million (out of \$25 million requested) for the 200 Bev Accelerator, \$6 million (out of \$7.5 million requested) for equipment and allowed operation of two K reactors. The latter, however, may not be allowed by BOB through action on the FY 1971 budget.

I had breakfast in the English Grill with Allan Labowitz, Myron Kratzer and Julie Rubin to discuss the press conference on safeguards in which we will participate this afternoon. Rubin and I went to the Sir Francis Drake Hotel, where I participated in a Panel discussion on "Nuclear Power Plants in Perspective" sponsored by PG&E. Shermer Sibley opened the program with some introductory remarks, introduced me and I spoke on "Nuclear Power - Public Acceptance and the Nation." He then called on the other speakers, as follows: Dr. John Totter on "Nuclear Power Plants and the Environment," Dr. Chauncey Starr on "Nuclear Safety in Perspective," Dr. Richard H. Jahns on "Earthquakes in Nuclear Perspective," Dr. Simon Kinsman on "Radiation in Perspective," and James R. Adams on "Thermal Effects and California Waters."

After the program I was interviewed by Bill Cook of Newsweek and Dick Leonard of KCBS Radio, a CBS affiliate.

I attended a luncheon hosted by PG&E after which various panel members answered written questions. I moderated this session which included questions concerning the limits on insurance available for nuclear

AEC BIWEEKLY STATUS REPORT FOR DECEMBER 2, 1969

1. The SNAP-27 radioisotope thermoelectric generator, placed on the moon November 19, is operating as designed and is serving as the sole power supply for the various lunar data gathering devices deployed by the astronauts during the Apollo 12 mission.
2. All five AEC Commissioners will participate in parts of the joint annual meeting of the Atomic Industrial Forum (an association of business firms and other groups interested in promoting the peaceful uses of nuclear energy) and the American Nuclear Society (a professional association) at various times during November 30-December 4 in San Francisco. The meeting will consist of speeches, symposia, and panels on a very broad range of topics related to the peaceful atom. Representatives from 14 countries, the International Atomic Energy Agency, and Euratom are expected to attend. One of the most significant events will be the presentation of the Enrico Fermi Award to Dr. W. K. Zinn by Chairman Seaborg on December 2. Dr. Seaborg will read a letter from the President to Dr. Zinn.
3. Research on foot-and-mouth disease by AEC's Brookhaven National Laboratory (on Long Island, New York) and the Department of Agriculture's Plum Island Animal Disease Laboratory has produced results of much interest to the medical community through an experiment in which mice were protected against the virus that causes the disease. It was found that injecting mice with synthetic, two-stranded RNA stimulated their natural defenses against viruses.
4. Two AEC contractors announced curtailments in employment on AEC-sponsored research programs because of budget reductions. Union Carbide Corporation will lay off about 300 employees at AEC's Oak Ridge National Laboratory during the next several months. Carbide now employs about 5,000 at the Laboratory and about 13,500 at all AEC facilities at Oak Ridge, Tennessee. In addition, at Princeton University about 100 employees on the staff of the Princeton-Pennsylvania Accelerator were terminated by November 28. Princeton continues to operate the accelerator on a reduced basis with the remaining staff of 100.
5. Youth Opportunity Campaign employment during summer 1969 increased by 23 percent over 1968 at AEC's contractor-operated facilities. Of the total of 1,252 young people

between ages 16 and 21, 44 percent were black and 23 percent were from other minorities. They worked in various jobs, including engineering and laboratory aides, clerks, and maintenance helpers.

6. AEC has publicly released a report on the fire at its plant in Rocky Flats, Colorado, on May 11, 1969, based on the findings of a special investigating board appointed by the AEC. This plant produces plutonium parts for nuclear weapons. The report describes the fire and mentions steps being taken to strengthen fire safety at both Rocky Flats and other AEC facilities.
7. Phase II of hearings on the Environmental Effects of Producing Electric Power by the Joint Committee on Atomic Energy has been scheduled to begin the week of January 20. Phase II will hear representatives of state governments, private industry, environmental groups, and the general public. Federal Government witnesses testified in Phase I during the October 28-November 6 period.
8. Chairman Seaberg and Commissioner Johnson will participate in the Northwest Conference on the Role of Nuclear Energy to be held on December 4-5 in Portland, Oregon. The Conference is being sponsored by Governor McCall.
9. Georgia will become the twenty-second state to assume part of AEC's Regulatory authority over the use of radioactive materials. An agreement will be signed by Commissioner Johnson and Governor Maddox in Atlanta on December 9. This transfer of authority is part of a general pattern, which is illustrated in item 6 of this report for August 12, 1969.
10. The nation's largest fast reactor critical assembly, the Zero Power Plutonium Reactor (ZPPR), was dedicated on November 20 at AEC's National Reactor Testing Station in Idaho. ZPPR is part of the program to develop a commercial breeder reactor in the million-kilowatts-electrical size. It will provide essential data for designing and operating a safe and economic breeder reactor.
11. AEC membership on the New England River Basins Commission has been approved by the Water Resources Council. The Commission, which is composed of Federal and state government agencies, coordinates water resource development in the New England area.

12. Two AEC films were seen on TV by an estimated 9 million viewers last summer. The films, "The Atom: Year of Purpose" and "No Greater Challenge," were booked 125 times over 162 stations in 45 states and territories.
13. An agreement was recently signed between Japan and France whereby the French atomic energy agency will provide technical guidance to the Japanese on constructing a plutonium fuel-element production plant. This is the third French-Japanese agreement on fast reactors to be signed in less than a year.
14. Construction of the first Bulgarian nuclear power plant is reported to have begun. This plant is expected to be the beginning of a nuclear power complex that will have a generating capacity of 2,000 electrical megawatts. Much of the technical support required for construction will be provided by the USSR.

accidents, development of the fusion reactor, alternatives to nuclear power for the near and long-term future, load centers for the generation of power, problems in disposal of radioactive waste, etc.

We then returned to the St. Francis Hotel for the safeguards press conference which was held in the Mayfair room. Those attending were: William Flynn (San Francisco Examiner), Peter Cleaveland (ABC radio), Douglas Willis (AP), Enez Viscun (Italian News Agency), Claudia Rauch (KOUR TV Sacramento), David Perlman (San Francisco Chronicle), James Benet (KQED-TV), Wally King (KSFO radio), Christopher Smith (Business Week), Bob Marsden (Channel 4, KRON, San Francisco), Robert Adamson (Nucleonics Week), Jack Christy (Nuclear Industry), M. Daccardo (NBC News), Peter Petrakis (San Francisco Bay Guardian) and Fred Olds (Power Engineering). The questions they asked concerned industry's stand on inspection by foreigners, reasons for classifying the uranium enrichment process and particularly gas centrifuge method, the cost of domestic and international safeguards inspectors, the key countries that would assure acceptance of the NPT, etc.

Following the safeguards press conference I was interviewed for Channel 4 in San Francisco by Daccardo of NBC-TV and separately by Bob Marsden of Channel 4.

I then rode with Blackmon to our home in Lafayette (1154 Glen Road). I surveyed the repair work that had been done on the roof of our home and the ceilings of the rooms below the repaired roof that need to be fixed. I picked up two of Helen's diaries (for 1943 and 1944) and the letters I wrote her while on my trips (from 1942-1946) as source material for my project to recreate the history of our Metallurgical Laboratory days. I then returned to the St. Francis Hotel.

About 6 p.m. Julie and I walked over to the Hilton Hotel where we joined the other head table guests at a special reception in the Toyon Suite. In addition to the head table guests, also present were Mrs. Carl Cohen, Mrs. Brush, Mrs. Zinn and Mrs. Davis. I also met Charlie Robbins and his new wife, Pauline Frederick of NBC News.

Following the reception I joined the other head table guests for the AIF-ANS Banquet. They were: Nunzio Palladino, Chauncey Starr, Jim Young, Jim Ramey, Howard Vesper, Wally Zinn, Shermer L. Sibley, Chet Holifield, Sherman Knapp, Lou Roddis, Rudolph Rometsch, Kenneth Davis, Karl Cohen, James Lilienthal, Brush and Greebler.

After the dinner, the head table guests were introduced and Lou Roddis (President, ANS) and Sherm Knapp (President, AIF) made brief remarks. Congressman Chet Holifield gave the main address, which included a strong personal position questioning any near-term sale of the gaseous diffusion plants and a challenge to the laboratories and industry for better cooperation and concentration on development of the fast breeder reactor. In connection with the latter point, he announced plans to have the JCAE select a blue ribbon panel to review the management of the fast breeder program.

Following the banquet Julie, Arnie Fritsch and I took a long walk through Chinatown and down Columbus Street to the main entertainment area in San Francisco.

Thursday, December 4, 1969 - San Francisco - Portland, Oregon

Rubin and I had breakfast in the English Grill. We then checked out of the St. Francis Hotel and rode with Blackmon to the Chemistry Building (No. 70A) of the Lawrence Radiation Laboratory in Berkeley. I picked up some more papers from Metallurgical Lab days, some information from Cunningham's notebooks prepared by Cunningham, some early correspondence with Jack Livingood, etc.

I called University of California Vice President Graeme C. Bannerman to report on my meeting with the Zinner Committee and to pass on to him the request of the Commissioners that they be presented with more than one name in connection with the choice of a successor to Norris Bradbury as Director of Los Alamos.

I talked to Segrè by phone about some articles on the actinide elements that he wants me to write for an Italian Encyclopedia of Chemistry (due next spring). He mentioned his reservations about the possible choice of Harold Agnew as a successor to Bradbury because of his hawk-like tendencies.

I called John Lawrence to discuss with him Jack Gofman's and Arthur Tamplin's strong position that the radiation protection standards of the AEC are much too lax; they plan to publish articles suggesting that this situation can lead to catastrophe.

I called Bob Mayo (in Washington) concerning the letter Senator Baker (Tennessee) has written to Bryce Harlow protesting the budget status of the Molten Salt Reactor project; I told Mayo that I had not discussed this with Baker, who must have procured his information elsewhere.

We visited Cunningham briefly, then Stan Thompson who accompanied us on a visit with Chin Fu Tsang and also with Bill Myers. We discussed with Tsang and then with Myers their present and proposed calculations on the stability of the superheavy elements. I called Ghiorso and told him about the Senate-House conference report on the FY 1970 budget. He told me about his recent confirmatory experiments on the production and identification of 8.6 MeV alpha emitting Lawrencium-258.

We had lunch in Perlman's office with Street, Hyde, Thompson, Hollander and Diamond. We had a spirited discussion about the continuing role of the University of California in operating the Los Alamos and Livermore Laboratories; Hollander opposes it vigorously and Hyde also tends to oppose.

Rubin and I then rode to the San Francisco Airport with Blackmon. We flew on Western Airlines Flight No. 640 to Portland. We left about 3 p.m., about an hour and a quarter late because our plane had been thrown behind schedule for the entire day because of fog at the San Francisco Airport in the morning.

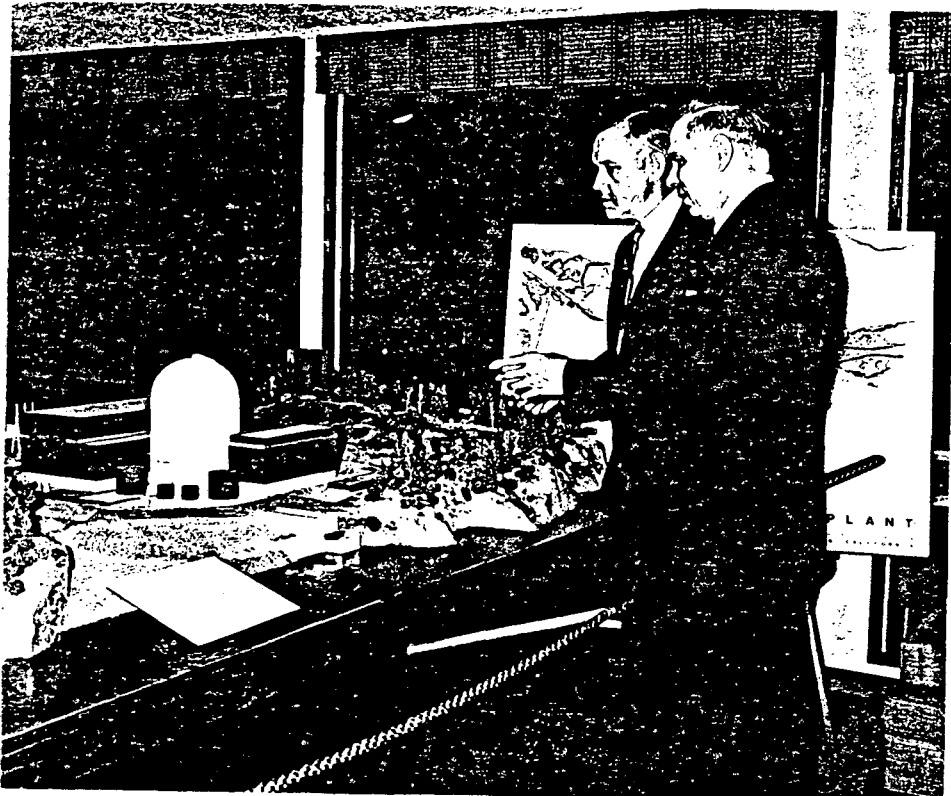
We arrived in Portland about 4:30 p.m. and were met by Governor Tom McCall (Oregon), L. E. Wilkinson (Atomic Energy Coordinator for Oregon), Lee Johnson (State Attorney General), Kes Cannon (Director, Division of Natural Resources), Mr. Milkean (Director, Division of Game Management) and Mr. Cassey of the Governor's staff. I also ran into Mr. and Mrs. Leo

Harris at the airport. Leo is the retired Director of Athletics of the University of Oregon. I knew him when I was connected with the Pacific Coast Intercollegiate Athletic Conference as Faculty Representative for the University of California, Berkeley.

We were then driven to the Airtel Motel (near the airport) by Keith Lofler (Portland General Electric) and I checked into Room 136.

I then returned to the lobby for a brief press conference. Those participating were Wayne Thompson (Portland Oregonian), Glenn Lee and Jack Briggs (Tri-City Herald), Gene Bryerton (Eugene Register-Guard), George Sample (KATU-TV Portland), Richard Potter (Daily News, Longview, Washington), and Russell Sadler (free lance writer, Eugene, Oregon). The questions were fairly hostile and concerned the effects of radioactive effluents from nuclear power plants, fog created by cooling towers, the public information problem, the sufficiency of insurance through Price-Anderson in the event of a major nuclear accident, the main areas of public concern about nuclear power, etc.

Following the press conference I attended a reception in Governor McCall's suite. Among those attending were Bill Johnson, Mr. and Mrs. Sam Healy, Byron Price and others.



Northwest Conference on the Role of Nuclear Energy, Portland, Oregon; December 4, 1969.

L to R: Governor Tom McCall, Seaborg.

After the reception I attended the banquet of the Northwest Conference on the Role of Nuclear Energy, held in the dining hall of the Airtel Motel. I sat at the head table with: Mrs. McCall, Richard Dunning, Dr. Arthur Scott, Dean George Gleason, Bill Johnson, Ron Donnelly, Russell Speed,

Sam Healy, Dr Kai Wong, Dunster, Larry Wilkinson, George Windgard, Fred Henderson, Jason Borne and Governor McCall. About 8:30 p.m. I was introduced by the Governor and delivered my speech, "20545," which was exceptionally well received by the 250 people in attendance. The entire program was taped for television news.

I saw Fred Albaugh and talked to him about his meeting earlier today with Commissioner Johnson and Bob Hollingsworth on reorganization of the PNL effort on the FFTF. I said that, even though there is some injustice in it and it is not the best way to proceed, he had better make a compromise and accept the situation; I, in turn, will try to put some sense into Milt Shaw's direction of the FFTF effort from Washington.

Friday, December 5, 1969 - Portland - Denver

Rubin and I left the Portland Airport about 7 a.m. on Continental Flight No. 420 and arrived in Denver (Stapleton Airport) about 10:10 a.m. We were met by Sam Donnelly (Manager, AEC Albuquerque Operations Office) and Frank Abbott (Area Manager, AEC Rocky Flats Office), who drove us to the Rocky Flats Plant.

Here we met C. M. Love (Industrial Relations Manager, Dow), J. F. Willging (Director, R&D, Dow), J. G. Epp (Division Services Manager, Dow), C. H. Dompierre (Controller, Dow) and E. A. Putzier (Health Physics Operations Manager, Dow). We then went to L. M. Joshel's (General Manager, Dow) office (in his absence) where we were briefed by Willging on the May 11th fire and the progress of the cleanup operation.

Putzier then briefed us on the environmental problems related to distribution of plutonium in the neighborhood of the Plant. He described the sampling stations around the Plant and the sampling procedures to look for plutonium. They found, offsite 10 to 20 miles, 0.003-0.007 pCi/M³, compared with Edward Martell's claim (by backward extrapolation for 15 years from ground measurements) of 0.04 pCi/M³. They are now studying the cost of the total containment by modifying buildings and waste control. Martell is planning a press release for next Sunday. I suggested that Rocky Flats get a press release ready also.

We were then driven to Building 707 where the fire occurred. We obtained shoe covers and safety glasses and were then escorted by A. R. Konecny (General Superintendent of Fabrication, Dow) and A. T. Schutten (Assembly Manager, Dow) to the parts of the building that have been decontaminated sufficiently to be back in operation. We observed the development line that is being used to substitute for certain equipment damaged by the fire. In the fabrication area we observed the impressive rolling of a 11-1/2 kg slab of plutonium that measured about 9 inches square and about 1/2 inch thick. Other glovebox operations and the conveyor system that carries the material through the fabrication operation were observed. The fronts of many new or repaired gloveboxes were identified where leaded glass had been used to replace the banalex previously uses, which had contributed to the fire during the accident. Also along the fabrication line we saw some W62 model weapons parts. We also were shown typical rubber gloves in the area where many had been intentionally damaged during the recent labor difficulties.

We then went to the cafeteria for lunch where the original group (except Putzier) was joined by M. J. Sunderland (Assistant General Manager for

Administration, L. M. Joshel, H. E. Bowman (Manufacturing Manager, Dow), E. J. Walko (Quality Manager, Dow) and H. A. Olander (Chief Auditor, Dow).

After lunch we met briefly with the union officials of Division 50--Jim Kelly (President), Ron Bradley (Vice President), Virgil Owen, Ike Roberts, John Ray, Abe Guffey and Bill Kennedy.

We were then met by Gene O'Ruark, Bob Simons and Arnie Fritsch of Gulf General Atomic. Rubin and I rode with them to the Public Service of Colorado Fort St. Vrain nuclear power plant (330 MW, HTGR) near Platteville. We had a short slide briefing by Bill Way (Site Manager for



Visit to Ft. St. Vrain, Colorado; December 5, 1969.
L to R: R. Walker, Seaborg, Bill Way, E. W. O'Ruark.

GGA) and Simons about the general construction of the HTGR and specifically the PSC project. Following the briefing the group toured the reactor. I climbed to the top level of the construction (some 6 or 7 stories) and returned to the bottom and at one point went half-way up again to observe some of the turbine installation work. After touring the main reactor and turbine building, we walked to a nearby area where some of the model work for the concrete containment development had been conducted.

Rubin and I then rode back to the Hilton Hotel in Denver with O'Ruark, Simons and Fritsch, and I checked into Room 1433.

I had dinner in the Beef Baron Room with Glenn Finley after which his mother, Eleanor, joined us in my room. He seems to be in good spirits and has a good chance to win his court case. I told him that I would help him get into a good college when he is ready for this.

The majority of nine judges of the U.S. Court of Appeals for the D.C. circuit upheld the Commission's decisions in the Vermont Yankee Nuclear Power Corporation and Duke Power Company nuclear power plant licensing cases. Municipalities from Massachusetts and North Carolina had contended that the plants are intended for commercial operation and should be licensed under Section 103 of the Atomic Energy Act which would make them subject to antitrust review. The Commission held the plants are properly licensed under the research and development section (104.b) in the absence of a statutory finding of practical value under Section 102. The stated goal of the municipalities was to obtain a share in the ownership of the plants. While upholding the Commission's decisions in these cases, the Court decision called attention to the growing number of plants of a size expected to be economically competitive, and also noted the AEC's plans to initiate rule-making procedures on a finding of practical value for light water reactors in mid-1970 unless pending legislation is enacted which would eliminate the need for such a finding.

Saturday, December 6, 1969 - Denver - Washington

Rubin and I had breakfast in the Hilton Hotel Coffee Shop. We then rode with Abbott and Harry Barnes (a driver from the Rocky Flats Office) to the Denver Airport. We left Denver about 9:30 a.m. on TWA Flight No. 470 and arrived at Dulles Airport about 2:30 p.m.

Eric, Suki and I took a hike in Rock Creek Park, starting at Oregon and Nebraska Avenues, going north on the White Horse Trail to Cross Trail 3, then back on the Black Horse Trail to Cross Trails 3 and 4 and back to our starting point.

Helen and I attended the wedding of Pat Goodwin and Leonard Norry in the Goodwin home, 5304 Broad Branch Road, N.W. Pat's parents, her four brothers and many friends were present, including a number from the AEC such as Em and Julie Rubin, Howard Brown, Stan and Rene Schneider, Marie Janinek, Helen Gearin, Doris Knief, Helen Brady and Blanche Mendoza.

Sunday, December 7, 1969

Helen and I attended a reception and buffet luncheon, given by the Independent Agency Wives, at the Marriott Motor Hotel, near the 14th Street Bridge. Mrs. William Burkhalter, the President of the Independent Agency Wives, hosted the luncheon. Among those present were: the Burkhalters, Jerry and Jo Tape, Mr. and Mrs. Loren Olson, Mr. and Mrs. Dale W. Hardin (ICC), Mr. and Mrs. Howard W. Fensterstock, Mr. and Mrs. Donald Whitehead, Mr. and Mrs. Edward McDermott, Mr. and Mrs. Jack Bush, Mr. and Mrs. Michael Greenebaum, Mr. and Mrs. Wilfrid Johnson, Mr. and Mrs. W. M. Whitman, Mr. and Mrs. T. Harold Scott, Mr. and Mrs. Howard Frease, Mr. and Mrs. John Crocker, Mr. and Mrs. Robert Tootell, Mr. and Mrs. Robert Heff, Mr. and Mrs. Everett Hutchinson, Mr. and Mrs. Willard Deason, Mr. and Mrs. Andrew Brimmer, Mr. and Mrs. G. Franklin Edwards, Mr. and Mrs. Hamar Budge, Mr. and Mrs. Laurence Walrath, Maureen Finnegan, Mr. and Mrs. J. K. Kuykendall, Mr. and Mrs. H. F. Owens, Mr. and Mrs. Rupert Murphy and Mr. and Mrs. Lewis Berry.

I watched on TV the Washington Redskins-Philadelphia Eagles football game, which was played in Philadelphia; the Redskins won, 34-29.

Eric, Suki and I took a hike in Rock Creek Park, starting at Oregon and Nebraska Avenues, going north on the White Horse Trail to Cross Trail 3, then back on the Black Horse Trail to Cross Trails 3 and 4 and back to our starting point.

I watched the Minnesota Vikings-Los Angeles Rams football game, which the Rams won, thus breaking the Vikings' eleven-game winning streak.

Bill and Lynne had dinner and spent the evening with us.

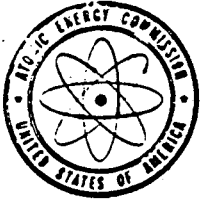
I received a telephone call from Robert D. Stiehler (3234 Quesada Street, N.W.), President of Woodrow Wilson Home and School Association, at home in the evening. He asked whether I would be willing to have my name submitted in nomination for membership on a committee to choose a principal for Woodrow Wilson High School. I said I would. The election will probably take place in January.

Monday, December 8, 1969 - Germantown

At 10 a.m. I presided over Regulatory Information Meeting 377 and at 10:40 a.m. over Information Meeting 976 (notes attached). Following the conference between the House and the Senate, our FY 1970 budget passed in compromise form last week and is now awaiting the President's signature. One question that remains is whether we should request apportionment of the \$3 million added for the molten salt reactor for FY 1970. This is probably not sensible because the FY 1971 budget sets this total at \$5 million and an addition of \$3 million now would mean we would have to find the money by taking it from other programs, which is almost impossible. It was decided that I would discuss this with Mayo. We approved a letter (copy attached) to Wilfred Rommel (Assistant Director for Legislative Reference, BOB), which expresses agreement with the concept of changing the fiscal year to the calendar year. We also approved a letter to Mayo which opposes the Bingham Bill which would transfer the regulatory function of the AEC to HEW.

Herm Pollack called to say that DuBridge has been in contact with Flanigan to ascertain with some precision the White House views regarding Smyth's probable replacement next June. The White House is vehement in their insistence on a replacement, but more than that, they do not want to wait until June; their candidate is Fred de Hoffmann. Pollack said that he and DuBridge are not very enthusiastic about this. According to DuBridge, Tape was not very affirmative with respect to his availability on any short timetable. Pollack spoke to Tape Friday evening (December 5) at a reception; Tape is concerned that this require one-third to one-quarter of his time, and he wants to consult with a member or two of his board, but will let Pollack know this week. DuBridge, feeling that you can't fight a nominee with nothing, again suggested Bob Bacher, and Pollack asked my reactions. I said Bacher is a good man but more independent and less predictable than Tape. Pollack said he will prepare a memo from Richardson to Flanigan, arguing against an abrupt change, but rather that the change be made after the June meeting; he will also take cognizance of the fact that they have suggested de Hoffmann and will question whether he would be the best choice.

I had lunch in the cafeteria with Milt Shaw and Julie Rubin in order to discuss general problems in the area of Reactor Development, including



UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

UNCL. BY DOE
NOV 86

December 8, 1969

REGULATORY INFORMATION MEETING 377

10:00 a.m., Monday, December 8, 1969, Room A-458, Germantown

1. Mr. Price's November 26 Memorandum re Denial of Proposed Change No. 26 for Pacific Gas and Electric Company's Humboldt Bay Unit No. 3, Docket No. 50-133

Deferred. (ADRA)

2. Mr. Price's December 2 Memorandum re Delaware River Basin Commission Hearing on the Salem Reactor

Noted. (ADRA)

3. December 7 Washington Post Article re Court Finding on Decision on Practical Value

Noted.

4. Mr. Price's November 28 Memorandum re Use of Depleted Uranium as a Coloring Agent in a New Glass Product

Approved with a request. (ADRA-SECY)

5. November 28 Letter from Northern States Power Company re ACRS Consideration of Application of License of the Monticello Project

The Commissioners will discuss with the Chairman, ACRS. (SECY)

6. AEC 783/145 - Proposed Letter to BOB re Comments on H. R. 14531

Approved with an addition. (GC-Rubin)

7. Mr. Tremmel's December 1 Memorandum re Visit to Combustion Engineering, Chattanooga

A visit by the Commissioners is to be scheduled in the early spring and staff will visit the facility in December 1969. (IP-SECY)

8. Certificate for Dr. Stephen Hanauer, Chairman, ACRS

Approved. (SECY)

9. Chairman's Meeting with Professor Marshall Dimock, President's
Advisory Council on Executive Reorganization, 4:00 p.m., December 10,
1969

Commissioner Ramey and Messrs. Price and Hennessey will also attend.
(Rubin-SECY)

W. B. McCool
Secretary

10:40 a.m.

PRESENT:

COMMISSIONERS:

Chairman Seaborg
Commissioner Ramey
Commissioner Johnson
Commissioner Thompson
Commissioner Larson

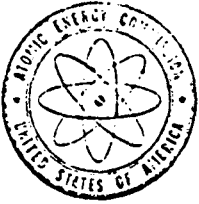
STAFF:

Mr. Beck
Mr. Henderson
Mr. Hennessey
Mr. Rubin
Mr. Wells
Mr. Buck
Mr. McCool
Mr. Hollingsworth*
Mr. Bloch*
Mr. Kull*

DISTRIBUTION:

Commissioners
Dir/Regulation
General Manager
General Counsel
Secretary

*Attendance by Topic (s)



UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

ENCL. BY L.
NOV 86

COPY NO. 3
December 8, 1969

INFORMATION MEETING 976

10:40 a. m. , Monday, December 8, 1969, Room A-458, Germantown

1. Schedule for the Commissioners' March 1970 Visit to Tokyo, Japan

Noted. (AGMIA-SECY)

2. December 3 TWX from Robert Moses Requesting AEC Representative Appear on Program for Station WPIX

Commissioner Ramey will participate. (Fremling-PI-SECY)

3. Schedule for the Commission Meeting with AEC-L, May 24, 25, 26, 1970. Toronto, Canada

Noted. (AGMIA-SECY)

4. Proposed Response to November 21 Letter from BOB re Proposals Concerning Executive Reorganization Act

Noted. (Rubin)

5. Chairman's Meeting with Professor Marshall Dimock, President's Advisory Council on Executive Reorganization, 4:00 p. m. , December 10, 1969

Commissioner Ramey and Messrs. Price and Hennessey will also attend.
(Rubin-SECY)

6. November 25 Letter from FCST Requesting AEC Name Representative to Committee on Government Patent Policy

Noted. (SECY)

7. Senator Baker's November 26 Letter to Bryce Harlow re Molten Salt Reactor Experiment; and, December 4 Memorandum from Controller re Congressional Action on FY 1970 Budget

The Chairman will call Director Mayo, BOB. (OC-Rubin)

8. Oral Report on Hanford Trip
9. AEC 901/501 - USSR Nationals: Proposed Visits to SLAC and CEA

Approved. (AGMIA)

10. AEC 89/182 - Indian National: Proposed Renewal of Employment at University of California, LRL-Livermore

Approved. (AGMIA)

11. AEC 23/91 - Proposed U. K. Export of High Speed Cameras to USSR

Approved. (AGMIA)

12. Staff Report on Status of Proposal re Cooperation with Europe on Diffusion Plant Technology

13. AEC 783/146 - Proposed Letter to BOB re Change in Fiscal Year

Approved with an addition. (GC)

14. AEC 720/211 - Opinion Concerning Submission to JCAE of Revised Uranium Enrichment Criteria

Approved with a change and a request for transmittal to the White House. (GC)

15. Pending Contractual Matters Report No. 337

Noted. (PAR)

16. Mr. Harris' December 5 Memorandum re Briefing on Fallout to Counteract Sternglass Statements

Noted with a request. (PI-SECY)

17. Meeting with the Advisory Committee on Radiation Pasteurization of Foods (See October 2-3 Advisory Committee Report)

To be scheduled. (SECY)

18. AERWA Christmas Parties, Bethesda and Germantown, December 19, 1969

Noted. (SECY)

19. NTS Events (See General Giller's December 4 Memorandum)

Noted. (AGMMA)

W. B. McCool
Secretary

12:30 p. m.

PRESENT:

COMMISSIONERS:

Chairman Seaborg
Commissioner Ramey
Commissioner Johnson
Commissioner Thompson
Commissioner Larson

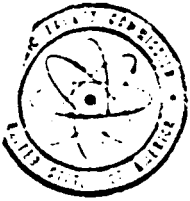
STAFF:

Mr. Hollingsworth
Mr. Bloch
Mr. Hennessey
Mr. Abbadessa
Mr. Rubin
Mr. Kull
Mr. McCool
Mr. Corso*
Mr. Kratzer*
Mr. English*
Mr. Fowler*

DISTRIBUTION:

Commissioners
General Manager
General Counsel
Secretary

*Attendance by Topic (s)



UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

ENCL. BY DOE
NOV 86

Dec. 9, 1969

Mr. Wilfred H. Rommel
Assistant Director for Legislative
Reference
Bureau of the Budget
Washington, D. C. 20503

Dear Sir:

This is in response to the Legislative Referral Memorandum of November 6, 1969, asking for our views on the proposed change in the fiscal year. The Atomic Energy Commission must agree with Mr. Hughes that the late enactment of appropriations is greatly disruptive of programming and management processes of the individual agency. The Commission would support legislation which would solve the problem of late appropriations or substantially alleviate the consequences. Apparently, the proposed legislation would provide Congress with six additional months to perform the authorization and appropriation process. Although Mr. Hughes says that this will not solve the problem of late appropriation, it must be assumed that some relief will result.

Mr. Hughes assigns annual "substantive" or "authorizing" legislation as the "major cause of Congressional delay" (and in fact mentions no other cause). If a change in the fiscal year will not solve the problem of a better time relation between the authorization and appropriation process or at least substantially improve such relationship, the change would appear to be unjustified.

The Commission's authorization for appropriation is required by Section 261 of the Atomic Energy Act of 1954, as amended, which in relevant part reads:

"a. No appropriation shall be made to the Commission ... unless previously authorized by legislation enacted by Congress."

In accordance with Section 261 annually Congress enacts an authorization bill for the Commission. It appears therefore that AEC's authorization act does fall within the category for which the alternatives in section 6 were devised. The Commission's authorization bill can be fitted into the transitional year by timely action on the part of the Commission and Congress.

Mr. Wilfred H. Rommel

Because of greater convenience the Commission would prefer an 18 month transitional year.

Section 251 of the Atomic Energy Act of 1954, as amended, requires the Commission to submit an Annual Report to Congress "... in January of each year". The report now covers programs and activities of the Commission for the Calendar Year, therefore the proposed legislation would have no impact on the report.

The Commission has little experience in the area of grants-in-aid and for that reason would prefer not to offer an opinion on item No. 3 of your memorandum.

We appreciate the opportunity to comment on the proposed legislation.

Sincerely,

ISI Blich

Dep. General Manager

problems posed by Holifield's announcement last Wednesday night, during his banquet talk to the AIF-ANS, of the creation of a blue ribbon panel to study the management of AEC's fast breeder program.

At 2 p.m. Commissioners Thompson, Larson and I met with the Historical Advisory Committee. Present were Dr. Alfred D. Chandler (Chairman), John T. Conway, Dr. Lauchlin M. Currie, Dr. A. Hunter Dupree, Dr. Ernest R. May, Dr. Robert P. Multhauf and Dr. Richard G. Hewlett of the Committee, as well as Bob Hollingsworth, Ed Bloch, McCool and others. This was a meeting to get acquainted with the new members of the Historical Advisory Committee. We discussed the progress on the writing of the naval reactors history. Hewlett indicated that he is getting fine cooperation from Admiral Rickover on this project.

At 2:25 p.m. Commissioners Johnson, Thompson, Larson and I, Bob Hollingsworth, Ed Bloch, John Abbadessa and Julie Rubin met (Information Meeting 977) to discuss the response we received from the President with respect to the policy items in our FY 1971 budget. The President's decisions were nothing short of disastrous. He cut \$10 million from physical research, \$1.9 million from biology and medicine, \$900,000 from the public information program and effectively 255 people from our AEC staff.

At 3 p.m. I left Germantown to attend a meeting of the NSC Under Secretaries Committee at the Department of State (Room 7219), which lasted from 4:10 to 5:15 p.m.

Before the meeting I told Dave Packard about the results of our appeal through Mayo on our FY 1971 budget, which resulted in a disallowance of essentially all the weapon items and the atmospheric test readiness program. Packard said he felt that this shouldn't be the last word and asked that we give him the information on the items involved so that he could seek reconsideration. I also told Packard about my forthcoming trip, at Secretary Rogers's request, to visit a number of African countries early in January and our need for an Air Force plane in order to make this feasible; he indicated that this should be easy to arrange.

Present at the meeting were: Elliot L. Richardson (Under Secretary), U. Alexis Johnson (Under Secretary for Political Affairs), Mrs. Tibbetts (Deputy Assistant Secretary for European Affairs), Wolfgang Lehmann, Arthur Hartman, David Biltchik and E. Pickering from the Department of State; David Packard (Deputy Secretary, DOD); Admiral Thomas Moorer and Admiral Frank Vannoy (JCS); Richard Helms (Director) and Peter Jessup (CIA); Myron Kratzer and William Wegner (AEC); Hermut Sonnenfeldt (NSC); William Weathersby (Deputy Director, Policy and Plans, USIA) and others.

Richardson opened the meeting by describing the problem regarding the President's discussions with Dutch Prime Minister de Jong in May, in which it was agreed that the Dutch and the U.S. might hold discussions concerning possible collaboration in the nuclear submarine field. He said he thought that there are essentially two possible courses of action: (1) we might recognize that the President went too far in suggesting discussions; hence, we might recommend that the plan be stopped and the Dutch informed that it wouldn't be worth coming to the U.S. for such discussions; and (2) we could recommend that they be invited to come but indicate that there wouldn't be any worthwhile purpose served by having a further study of the possibility of such collaboration.

Packard suggested that we shouldn't mislead them by inviting them for further discussions. Moorer agreed with this point of view; I indicated that it might be better not to mislead them when the prospects for collaboration are so small.

Johnson raised the question of what we might do if the Dutch turned to the French for help, and Packard replied that we would let them do so without any particular concern on our part.

Richardson suggested that perhaps we could have them come for limited discussions on financial and education matters, but Packard again indicated that it might be better if they did not come at all. He said we might mitigate this by giving them some aid in conventional lines, such as the P-3A airplane.

Richardson then referred to his memorandum calling the meeting of the NSC Under Secretaries Committee, with its reference to a study evaluating the pros and cons of various forms of far-reaching cooperation and the terms of reference for such a study, and raised the question of whether it is clear that we can't learn something from such a study. Packard indicated that he is against further study, and Moorer again supported this position.

Sonnenfeldt then put a different aspect on the meeting by saying that there are no indications that the President wouldn't want the Dutch to come over for discussions, and, similarly, no indications that the President wouldn't want to have a study of the possibilities of cooperation if the Dutch do come over.

Richardson indicated that perhaps there are three possibilities to consider: (1) should the Dutch be invited, (2) if so, should there also be a follow-on study, and (3) should the answer be that we cooperate with the Dutch. He called on Mrs. Tibbetts for her views on this, and she responded that she would answer yes to (1) and (2) but didn't feel she could prejudice (3).

Helms indicated that the question is made more difficult by the fact that we don't know what the Soviets have. Richardson raised the question of what the security trick really is since we are already cooperating with the U.K.

Johnson referred to a chronology, which had not been made available to the rest of us, which indicated a disposition on the part of the Executive Branch, and even of Congress, to cooperate with the Dutch and other NATO allies in 1958 and 1959, which was reversed in 1961 and 1962. Kratzer described his own involvement with these negotiations, and said that Congress at no time, even in 1958 and 1959, expressed approval for cooperation in the development of the nuclear submarine with the Dutch or other NATO countries--to the contrary, they expressed strong opposition consistently and at all times. I pointed out that all 18 members of the JCAE are presently unanimously against any such cooperation.

Packard, apparently influenced by Sonnenfeldt's expression of the President's view, suggested that perhaps we could at least invite the Dutch over for discussions. I indicated that I should think this would be possible without making any commitment concerning a follow-on study.

Richardson raised the question whether we could compromise by cooperating with the Dutch in the development of nuclear propulsion for surface vessels, to which Wegner replied that the technology is exactly the same for the nuclear propulsion of surface vessels and submarines.

Richardson closed the meeting by indicating that he would circulate a draft that would summarize the views of the agencies involved and suggest that the decision be made by the President.

After the meeting I talked to Richardson and Alex Johnson about the word that apparently has come from the White House through Flanigan's office to replace Harry Smyth immediately as the U.S. Representative to the IAEA. I indicated that such treatment of Smyth would be totally unwarranted and that we should give him a reasonable amount of time, such as until next summer, to complete his duties in reasonable fashion. I also indicated that I think Jerry Tape is the best possible replacement and mentioned that I understand that Fred de Hoffmann has also been mentioned as a possible replacement.

I received a memorandum from President Nixon, addressed to Heads of Departments and Agencies, advising that he has established by Executive Order the Office of Minority Business Enterprise in the Department of Commerce to coordinate the efforts and resources of Federal departments and agencies and private enterprise in this field (copy attached).

I received a letter from Senator Mansfield (copy attached) requesting our cooperation with the DOD and BOB in implementing Section 203 of the Military Procurement Authorization law which expresses a fundamental change in Federal funding for research severely limiting the extent that DOD can supply funding support for basic research.

Tuesday, December 9, 1969 - D.C.

At 10 a.m. I presided over Information Meeting 978. We discussed the President's decisions on our FY 1971 budget appeal and a possible additional direct appeal to the President. We decided that we will write a letter to the President with an additional appeal, as provided by the 1971 Budget Appeal Procedures. We will appeal for the restoration of one of the K reactors at Richland, an additional \$15 million for A&E in the Cascade Improvement Program, reinstatement of weapons production and the atmospheric test readiness program to an extent to be determined by conference with the DOD, reinstatement of NERVA in the space nuclear program to the extent determined by consultation with NASA, and restoration of some money for physical research and of some additional staff.

I called Pollack and told him I spoke to Richardson about the Smyth affair when I saw him yesterday afternoon in conjunction with the NSC Under Secretaries meeting. I said it would be bad to move Smyth out in a hurry. I mentioned that Fred de Hoffmann's name had surfaced, and indicated he might not be ideally suited for the job, giving some of the reasons, and saying that the only hope seems to be in convincing Tape to take the job. Pollack asked whether I have discussed this yet with DuBridge, and I said no.

THE WHITE HOUSE
WASHINGTON

ENCL. BY DOF
NOV 86

December 5, 1969

MEMORANDUM TO HEADS OF DEPARTMENTS AND AGENCIES

SUBJECT: Federal Procurement and Minority Business Enterprise

Minority business enterprise is a major concern of this Administration. For that reason, on March 5, 1969, I established by Executive Order the Office of Minority Business Enterprise in the Department of Commerce to coordinate the efforts and resources of Federal departments and agencies and private enterprise in this field.

One of the most important ways to promote this effort is to develop a program which will increase the involvement of minority group contractors in the multi-billion dollar Federal procurement program. The Office of Minority Business Enterprise, the Small Business Administration, and a Federal Task Force on Procurement -- under the leadership of Robert L. Kunzig, Administrator of General Services -- are working closely with members of my staff to develop such a program.

Leonard Garment, my Special Consultant, and Robert J. Brown, my Special Assistant, will assist in the development of that program, keep me informed of progress, and make such recommendations as they feel are necessary.

I request that during the period of program development, all departments and agencies provide to the Office of Minority Business Enterprise and the Small Business Administration full support in the following ways:

- Provide procurement opportunities.
- Supply management and technical experts.
- Help to set goals to measure progress of the efforts being made.

- 2 -

-- Name a representative of your department or agency to pursue these efforts.

This program has high priority on this Administration's agenda. I trust that all of you will give it your best attention and effort.

Richard Nixon

United States Senate
Office of the Majority Leader
Washington, D.C. 20510
December 5, 1969

ENCL. BY DOE
NOV 86

The Honorable Glenn T. Seaborg
Chairman
Atomic Energy Commission
Washington, D. C.

Dear Mr. Chairman:

On November 19, 1969, the Military Procurement Authorization for 1970 was signed into law by the President. Section 203 of that law expresses a fundamental change in Federal funding for research. In essence, it emphasizes the responsibility of the civilian agencies for the long-term, basic research. It limits the research sponsored by the Defense Department to studies and projects that directly and apparently relate to defense needs. The Secretary of Defense already has directed a determination of what projects do not comply with Section 203 and has begun an internal review of current projects. He has also invited the National Academy of Sciences to make an independent determination of those projects that may fall into a grey area with respect to Section 203. There is no design in the passage of this section of the law to eliminate or reduce the Federal Government's contribution to research. It is designed to realign and restrict the sponsorship of research to defense missions.

It is anticipated that a number of research projects and studies will not comply with Section 203. Some of these will be of a quality and importance that would justify sponsorship by civilian agencies. This is important, for the intent of Section 203 is to obtain a new balance among civilian agencies in their responsibilities for funding research, not simply to cut off DoD support of the research that does not meet the requirements of Section 203. The legislative record of Section 203 makes it clear that Congress seeks an orderly transfer of high quality research projects that the Defense Department can no longer fund to other departments and agencies. Obviously a change of this kind will pose some difficulties which will require thoughtful, positive action within the agencies and in Congress to resolve.

December 5, 1969

Page Two

I am writing to solicit your cooperation with the Department of Defense and the Bureau of the Budget as they adjust to the mandate of Section 203. And I would appreciate your timely advice and recommendations in its implementations.

Again, it is the Congressional intent to continue high quality research projects even if the sponsorship changes to another Federal agency. Some financial and funding arrangements will probably have to be made, and here I am looking to the Bureau of the Budget to recommend appropriate action.

Sincerely,

Walter T. Mansfield

I had lunch at the Longworth Cafeteria (18th and G Streets) with Julie Rubin, Justin Bloom, Stan Schneider and Bob Davids. After lunch Bloom, Schneider and I walked around Lafayette Park.

At 3 p.m. I met with Roger Lewis, President of General Dynamics; Julie Rubin was also present. Lewis explained that he has been talking to oil companies about the possible use of a nuclear submarine tanker and, since some publicity may appear soon about these discussions, he wanted to review the picture with me. He explained the background leading to the talks with the oil companies which included GD experience with building Navy nuclear submarines, and a study conducted several years ago for the Navy involving large, high speed underwater transports. Lewis stated the Alaskan oil discovery involves from \$15-40 billion worth of petroleum which is the largest discovery since that in east Texas. Since the U.S. has an oil shortage on the East Coast, the companies are exploring three possible methods for using the Alaskan oil: (1) surface tanker, (2) pipeline, and (3) a large submarine tanker. All three systems would use surface transports when warm weather, deep water ports were reached.

Lewis identified the major companies holding leases in Alaska as Humble Oil, Standard Oil of Ohio/British Petroleum and Atlantic Richfield, with Mobile and Phillips having a secondary position. Lewis has proposed a feasibility study jointly financed by the five oil companies plus General Dynamics which would include some model work that would result in some firm cost data about a submarine tanker by July 1970. Some projections have been made that the first submarine tanker could be delivered by mid-1974 at a cost of \$200 million with one every eight months thereafter. Orders for three would reduce the price to \$188 million each and an order for six would carry a price of \$175 million each. The ship would have a speed of 18 knots and would be about 900 feet long, 140 feet wide and 80 feet deep with a 50-foot diameter inside hull working space. The size is limited by existing U.S. shipyard capacity; if sufficient boats were ordered, special shipyards could be constructed that could accommodate up to 300,000-ton size tankers. Lewis explained that the recent trip by the MANHATTAN has shown that it is slow and not completely reliable. It has the advantage of a low capital cost, but it has a high total cost due to its slow speed. The pipeline alternative, if direct from Alaska to Chicago, would go through the Canadian oil fields and a heavy charge is anticipated. The alternative is to build a pipeline to Vancouver and use surface ships for a route to the U.S. West Coast and a new pipeline to the East Coast. Lewis projected savings of 25¢ a barrel by using a submarine tanker and the possibility of 40¢ a barrel savings eventually.

Lewis noted the Jones Act requires U.S. ships to be used in carrying cargo between two U.S. points. The oil companies do not like this as they can obtain cheaper ships in foreign shipyards and according to Lewis might still plan on shipping Alaskan oil to Europe in foreign hulls. Lewis also stated that everyone is applauding the Alaskan oil discovery since it provides independence from mid-east oil, but it would take something as dramatic as the submarine tanker to maximize the economic benefit to the U.S. because the oil companies could economically justify shipping the oil to foreign ports.

The geography of our coast line compared with that of the USSR was reviewed and Lewis stated the U.S. plus Canadian coast line is equal to

the USSR coast line. He pointed out the continental shelf (identified as extending from the shoreline to a point where the ocean is 600 feet deep) joins our two continents and that one reason the USSR is expanding their Navy and oceanographic activities is to exploit the potential of the continental shelf. Some miscellaneous data provided by Lewis includes the information that: icebergs are the only navigational problem, plus a narrow passage under the ice of 350 feet, both of which could be successfully navigated; no government assistance is being requested. If the project proceeds, it would be financed by conventional means with General Dynamics as the prime contractor. Lewis has talked to Rickover and apparently did not receive any violent reaction; the submarines will be designed for operation at a depth of 1000 feet and a hull crush specification of 1500 feet; a direct polar route to Greenland to connect with a surface tanker to Europe is a very short haul.

I called Mayo and mentioned the \$3 million for the molten salt reactor that Congress added to the FY 1970 budget; I said this would almost have to be matched by \$3 million in FY 1971. Mayo said that the President stated that he would wait until all the appropriations bills have come through before deciding whether to spend congressional add-ons. I said that, even to have it apportioned, we would have to identify a \$3 million reduction in our budget someplace else and asked what he thought the chances would be on the President's decision. He replied that he honestly couldn't say, and he would be inclined to reserve judgment. I then mentioned the December 5 letter which we received from Mansfield (attached to the December 8 Journal), describing the action to cut out non-mission oriented research in DOD and indicating that this should be picked up by other agencies. I asked whether he has any instructions on that, and he said not yet. He said he has just finished talking to McElroy (NSF), who has received a similar letter; of course, Foster is working on this in DOD. Mayo said that the President is taking a hard line on the matter of other agencies picking up Defense-dropped projects. I said that we would be in no position with our budget to pick up anything.

I then mentioned to Mayo those DOD items where BOB didn't allow us anything--weapons production, test readiness, etc. He said that DOD is focusing on this right now, and he doesn't know whether they will want him to raise this question with the President. He said that when the matter was discussed with the President, Kissinger, unfortunately, was not present. I said I understood that Mayo, Packard and Kissinger are a committee of three on this subject. Mayo said he absented himself from membership. Schlesinger is at a 4 p.m. meeting today on this. I said we are preparing our President's appeal letter, but we will just wait on that item until we hear the results of that meeting. I asked whether the President understands on the research cuts what a blow this will be to university contracts, etc. Mayo said the President understands this, and he has determined to cut down on university research; he will keep cancer research, etc., but even after all the cuts, the President still considers the level of research to be "pretty high."

At 3:50 p.m. I called William Evers, Executive Director, Camille and Henry Dreyfus Foundation, to follow up the request of Science Service for support. He was negative for this year but said Science Service could be considered for 1970 (normally in September or October). We can call in advance to remind him. I followed with a call to Ted Sherburne to relate the above.

At 4:35 p.m. I called Michael Ference of the Ford Motor Company about Science Service's request for funding. He was negative for this year but thinks they would consider a smaller request next year. I called Ted to tell him.

Wednesday, December 10, 1969 - D.C.

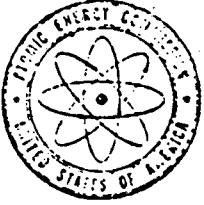
I called Lee DuBridge on several matters. The first was regarding the budget, and I said we seemed for a while to be doing all right on physical research. We got an additional \$10 million (added to \$278 million) which would permit us to hold our own. When it went to the President for review, however, he cut out the \$10 million, which we are going to appeal. DuBridge said this has happened to two or three other agencies in the past several days. He is trying to see Mayo this morning to learn what happened, and he will talk to the President tomorrow. He said there has been some feeling in some quarters in BOB that university research should be phased out of the agencies and put under NSF; I said that would be disastrous for AEC.

I next mentioned to DuBridge the Smyth case. DuBridge said that, as we know, someone at the White House got the idea that Smyth's appointment is temporary and that it ought to be terminated. Smyth agreed to step out next summer; Flanigan objected and said he felt Smyth should step out sooner. DuBridge told him that would be awkward. Then Flanigan said that Fred de Hoffmann should be the replacement. DuBridge has explored this but didn't find anyone who is very enthusiastic. I said I would feel that he would have the same problem he had trying to run General Atomic; I think that, although he is brilliant, he is not a great organizer or administrator. State Department people don't feel he has the diplomatic skills; Pollack is quite concerned about it. DuBridge said that Tape mentioned that he felt he couldn't do it in the very near future. DuBridge suggested that perhaps we could think of some other job for de Hoffmann. I said I would hope someone from his office could go along on my African trip--someone who would benefit from the contacts, and could act as a liaison for any follow-up. DuBridge said he is meeting with his staff people in a few minutes and would bring it up and let me know very promptly. He thought Norman Neureiter might be the one.

At 10 a.m. I presided over Information Meeting 979 (notes attached). We discussed the content of our letter of appeal to the President concerning the FY 1971 budget. We decided to include a request for the 2 K reactors, \$14.8 million for the CIP, \$13.6 million for weapons production, \$8.5 million for the test readiness program, \$12.9 million for physical research and biology and medicine and 140 reinstated staff.

In executive session, Commissioners Larson, Johnson and I discussed with Hal Price some organizational changes he has in mind in order to accommodate his deficiency in numbers of staff.

At 11:40 a.m. I presided over Commission Meeting 2400 to consider document AEC 809/1451. The Commission determined that it would not be inimical to the interest of the U.S. for Deuterium Corporation and the Lummus Company to enter into discussions and negotiations with representatives of the Government of Romania with a view to contracting to supply the Government of Romania with a heavy water plant.



UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

ENCL. BY DOE
NOV 86

COPY NO. _____
December 10, 1969

INFORMATION MEETING 979

10:00 a.m., Wednesday, December 10, 1969, Chairman's Conference Room, D. C.

1. Chairman's Appointment with Mr. Peter Flanagan, White House, Next Week
2. Agenda Changes for the Week of December 15, 1969

Noted. (SECY)

3. December 5 Memorandum from the President re Federal Procurement and Minority Business Enterprise

The General Manager will designate an AEC representative. (EAGM)

4. Senator Mansfield's December 5 Letter re Military Procurement Authorization

Noted.

5. Fiscal Year 1971 Budget

Discussed. The draft letter to the President is scheduled for consideration at 10:15 a.m. tomorrow. (OC-SECY)

6. Briefing on NATO Guidelines re Use of Tactical Weapons

To be scheduled. (SECY)

7. Inquiry from White House Staff re Atomic Energy Labor-Management Relations Panel

The General Manager will sign the responding letter. (AGM-EAGM)

8. AEC 213/149 - Safeguards Regulation of the Transportation Industry

Approved. Staff is to inform the Chairman whether he should telephone DOT and other departmental officials. (SMM)

9. AEC 89/183 - Swiss National: Proposed Assignment at LASL

Approved. (AGMIA)

10. AEC 809/143 - Proposed Westinghouse Assistance to Finnish Reactor Project

Mr. Kratzer reported on his discussions with JCAE staff and the Commissioners agreed staff may proceed. (AGMIA)

11. Commission Representation at the January 19, 1970 Dedication Ceremony of the Tarapur Atomic Power Station

Commissioner Ramey will attend. The Chairman and other Commissioners will regret. (AGMIA)

12. AEC 1059/3 - Rocky Flats: Plutonium Concentration Build-up in Soil

Approved. (BM)

13. AEC 1083/145 - Fourth International Congress of Radiation Research

Approved. (BM)

14. AEC 811/282 - Return of Carlsbad Site to Bureau of Land Management

Approved subject to clarification of the second sentence of paragraph 2, page IV, and to be discussed with the Congressional delegations. The letters are to be signed by the Chairman. (PNE-SECY)

15. AEC 1192/79 - New Air Service Contractor for Nevada and Albuquerque

Staff may proceed subject to the Commissioners' requests. (DC-Congr.-SECY)

16. Request for Clearances for KMS Project

Reluctantly approved. (GC)

17. AEC-R 202 - NSP Request for AEC Witnesses - Minnesota Litigation

To be discussed with White House staff. (DR-GC)

18. General Manager's Oral Report on Personnel and Other Matters

19. Mr. Price's Executive Session Discussion with the Chairman and Commissioners Johnson and Larson

To be discussed with Commissioners Ramey and Thompson. (DR)

W. B. McCool
Secretary

12:45 p.m.

PRESENT:

COMMISSIONERS:

Chairman Seaborg
Commissioner Ramey
Commissioner Johnson
Commissioner Thompson
Commissioner Larson

STAFF:

Mr. Hollingsworth
Mr. Bloch
Mr. Brown
Mr. Hennessey
Mr. Rubin
Mr. Kull
Mr. McCool
Mr. Abbadessa*
Mr. Corso*
Mr. Crowson*
Mr. Kratzer*
Mr. Facer*
Mr. Totter*
Gen. Giller*
Mr. Biles*
Mr. Smith*
Mr. O'Neill*
Mr. Price*
Mr. Henderson*

DISTRIBUTION:

Commissioners
General Manager
General Counsel
Secretary

*Attendance by Topic (§)

I had lunch at the White House Mess with Julie Rubin. During the course of lunch I talked with George Bell about the man he is pressing for us to put on our staff, with DuBridge about the problem of money for basic research and the 200 Bev Accelerator and with Mayo and Schlesinger about the appeal for weapons production and for the restoration of the two K reactors at Hanford in our FY 1971 budget.

Jerry Tape called and said he has come to the conclusion that it would be wrong for him to consider taking on Smyth's job as U.S. Representative to the IAEA at this time, and he will ask Pollack not to include his name among those being considered. In our discussion, the following names came up for possible consideration: George Beadle, Jim Fisk, James Jensen, Charles Townes, Anthony Turkevich, Polly Bunting, John Palfrey.

At 2:30 p.m. the other Commissioners and I attended a briefing by General Electric officials on the current status of nuclear power for space applications, short and long-term. Present were: Dr. D. Fink (General Manager, Space Division), L. Farnham (General Manager, Space Systems), D. Huebner (General manager, Nuclear Systems Programs) and T. Clark (Manager, Washington Region, PGS). Those from AEC were Bob Hollingsworth, George Kavanagh, Milt Klein, Bob Tharp and others. At the end of the briefing I did make it clear that the outlook is very pessimistic for the Space Electric Program in our FY 1971 budget.

At 4 p.m. Commissioner Ramey and I, together with Joe Hennessey, Harold Price and Justin Bloom, met with Marshall Dimock, Stephen Turner and Peter J. Wallison of the President's Advisory Council on Executive Organization. This Council, which is chaired by Roy L. Ash, is concerned particularly with the regulatory agencies. In this connection we described to them in detail the regulatory functions of the AEC and the problems that arise in connection with the recommendations of some that this regulatory function be separated from the development function, the problems with respect to the regulation of thermal effects, problems with regard to the desires of some States to enter the field of regulating radioactive effluents, the anti-trust and practical value problems, etc.

I received a call from Graeme C. Bannerman (Vice President, Administration, University of California, Berkeley) who said that, in talking with some of the search committee in connection with the selection of a successor to Norris Bradbury, the thought occurred to him that the Commissioners ought to be consulted before a decision gets locked in. He said all the people at Los Alamos have been invited to make whatever comments or recommendations they wish. He asked if it would be out of line if he suggested that the Commissioners comment in their personal rather than official capacity. I said that would be all right. He said that, of course, the committee has the responsibility of making recommendations, but the Commissioners' comments would not be used as controlling documents, merely as individual recommendations. He said they would be held personal and confidential. I said I would pass this on to the other Commissioners and ask them to send their comments to Jack Oswald. He said they should be in within a week and a half. I told him I have been getting indications that this will be a very controversial issue and that I was just mentioning it so they wouldn't be caught off guard. He said he has not heard this, but it probably is bound to happen.

Thursday, December 11, 1969 - D.C.

At 10:30 a.m. I presided over Information Meeting 980 (notes attached). We agreed on the final version of the appeal letter to be sent to President Nixon in connection with the FY 1971 budget (copy attached).

The other Commissioners and I, Bob Hollingsworth and Julie Rubin met with Norris Bradbury in one of the regular sessions that the Commission has with the laboratory directors. In addition to a general discussion of the status of the program at Los Alamos, we discussed the problem of finding Bradbury's successor as director since he is retiring sometime next year. Bradbury stressed the importance of defining the future role of the Laboratory, that is, weapons vs. a Brookhaven type, in order to help define the sort of director that would be required. He seemed to favor Harold Agnew but acknowledged that there are some problems in this connection with some members of the Laboratory.

I had lunch at the Roger Smith Hotel with Bradbury and Rubin. We continued the discussion concerning Bradbury's replacement. Although Harold Agnew is a logical candidate, there would be many problems because of his hawkish tendencies. We also discussed the possibility of an outsider, such as Stirling Colgate, or an internal arrangement whereby Rod Schreiber would fill the position for a year or two with Harold Agnew as associate director, during which time Agnew's actual views toward arms limitations, etc. might mature more.

Commissioners Ramey, Johnson, Larson, Thompson (for the first part only) and I attended a meeting with John Palfrey (Chairman), Del Crowson, Russell Wischow, Roger Batzel, Francis Cotter, Norman Ramsey, Clement Rodden, Charles Thornton, Francis Wilcox, Ernest Wilkins, John Conway, Bruce Smith and Ashton O'Donnell of the Advisory Committee on Nuclear Materials Safeguards. Bob Hollingsworth, Harold Price, Justin Bloom and other AEC staff were also present. Palfrey opened the joint meeting by summarizing their forthcoming report to the Commission. He mentioned their recommendation to continue a follow-on arrangement to the four-reactor IAEA safeguards arrangement and discussed the importance of the IAEA safeguards in connection with the forthcoming NPT. Batzel described the Committee's look at the AEC R&D program. Thornton described their look at the safeguarding of gaseous diffusion and gas centrifuge plants and discussed the importance of work on materials standards. Palfrey discussed the safeguarding of transportation of special nuclear materials and suggested that specialized career personnel might be best for this. Conway discussed the role of the AIF and the awakening of industry to the importance of safeguards; he also discussed the regulatory aspects.

At 4:20 p.m. I presided over Information Meeting 981 (notes attached). We discussed the Gofman-Tamplin testimony on permissible general radiation exposure levels and their comments regarding radiation hazards which attack AEC standards for levels of radioactive effluents. The other Commissioners appear to want to take some action in the way of setting rules against such statements; I am afraid that our only recourse is to answer the Gofman-Tamplin arguments logically in the public forum. We also discussed the labor situation at LRL in Livermore in which the University would take steps to bring the union members in line that would apply only to Livermore and not to other University campuses. We agreed that this is an unacceptable course of action.



UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

ENCL. BY DOE
NOV 09

COPY NO. 3
December 11, 1969

INFORMATION MEETING 980

10:25 a.m., Thursday, December 11, 1969, Chairman's Conference Room, D. C.

1. BOB Decision re Non-Apportionment of MSR Money
2. Letter to the President re Fiscal Year 1971 Budget Appeal
Approved with changes for signature this morning. (OC-Rubin)
3. Mr. Baranowski's December 10 Memorandum re Shutdown of K Reactors at Richland

Noted.

W. B. McCool
Secretary

10:55 a.m.

PRESENT:

COMMISSIONERS:

Chairman Seaborg
Commissioner Ramey
Commissioner Johnson
Commissioner Thompson
Commissioner Larson

STAFF:

Mr. Hollingsworth
Mr. Bloch
Mr. Rubin
Mr. Abbadessa
Mr. Corso
Mr. Ryan
Mr. McCool
Mr. Voigt*

DISTRIBUTION:

Commissioners
General Manager
Controller
Secretary

*Attendance by Topic (s)



UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

ENCL. BY DOE
NOV 86

December 11, 1969

The President
The White House

Dear Mr. President:

In accordance with procedures established by the Director of the Bureau of the Budget for appeal of increases to the Fiscal Year 1971 tentative budget allowances, we respectfully request restoration of FY 1971 budget reductions in the amount of \$98.9 million of new budget authority. Budget outlays associated with that amount are estimated at \$65.3 million.

The specific items for which we are requesting these fund restorations, together with our arguments in support of the additional funds, are as follows:

	<u>Budget</u> <u>Authority</u>	<u>Outlays</u>
	(In Thousands)	
Operation of two K Reactors, Richland, Washington.....	\$ 42,000	\$ 30,400

The FY 1971 budget allowance would necessitate the shutdown of the two K reactors at Richland, Washington. The Commission, with the active support of Senator Jackson and the other members of the Washington Congressional delegation, has undertaken an aggressive and, to date, successful program to attract private enterprise into the Richland community. The keystone of the success of this program has been the substantial amounts of private funds invested by these enterprises at the request of the Government. Although it is recognized that Richland is in process of transition to a more typical private economy, we are convinced that a precipitous shutdown of two reactors this year would result in the collapse of a sizeable portion of the private sector of the community's economy. Therefore, we propose restoration of funds to continue the operation of the two K reactors in FY 1971 with the view to a more orderly close-out which could be phased over at least a two-year period starting in 1972. A further advantage of this approach is that we would be better

assured of an adequate supply of plutonium for the Nation's nuclear weapons program. Specifically, we would maintain our ability both to meet a change in weapons stockpile needs and to produce weapons in the event of an interruption in the production of plutonium.

	Budget	
	<u>Authority</u>	<u>Outlays</u>
	(In Thousands)	
Cascade Improvement Program.....	\$ 14,800	\$ 3,000

This Administration has recently announced that the uranium enrichment facilities should be transferred to the private sector by sale at such time as the various national interests will best be served. However, until such disposition occurs, the Commission retains the responsibility to assure an adequate supply of enriched uranium for commercial and Government use and to meet foreign commitments. The amount we are requesting to be restored is considerably below our initial budget request and represents a compromise which will permit us to proceed modestly with architect-engineer services and the procurement of long lead-time plant and equipment items. Not only will the cost of these improvements be recovered in the sale of the plants, but also the economic benefits to be gained by the earlier introduction of improved technology will more than offset the requested budget restoration.

Weapons Production.....	\$ 13,600	\$ 10,200
-------------------------	-----------	-----------

The FY 1971 budget allowance for weapons production was \$26.5 million below our request. The Department of Defense has reviewed these reductions and has stated its minimum requirements for certain of the strategic and tactical weapons affected. A restoration of \$13.6 million is necessary to meet the restated requirements.

Atmospheric Test Readiness.....	\$ 11,300	\$ 8,500
---------------------------------	-----------	----------

Restoration of the \$8.5 million for the Off-Continent Test Readiness program is necessary if the third safeguard under the Limited Test Ban Treaty is to be continued. Each year, since ratification of the Limited Test Ban Treaty, we have been questioned intensely by Congressional

Committees as to the adequacy of our funding levels to maintain the four safeguards. This amount represents the AEC's portion of a greatly reduced joint AEC/DOD program being proposed for Administration approval.

	Budget	
	<u>Authority</u>	<u>Outlays</u>
	(In Thousands)	
Basic Research in Physical and Life Sciences.....	\$ 15,900	\$ 11,900

The FY 1971 budget allowance for our basic research activities is the same dollar level as the FY 1970 budget and will result in a severe reduction in the application of effective research effort in the development of the peaceful uses of atomic energy. This is most unfortunate when one considers that our basic research programs of today determine the technological advances of the next generation. At stake are the enormous benefits that will accrue from the development of atomic energy in both the economic strength and the general well-being of our Nation and its present role of technological leadership in the world community. Also placed in jeopardy is the effective conduct of our medical and biological research. Illustrative of the benefits growing out of such research are the advances made in the treatment of cancer, Parkinson's disease, and hoof and mouth disease.

Staffing.....	\$ 1,300	\$ 1,300
---------------	----------	----------

The FY 1971 budget allowance would require a reduction of 140 positions from the currently authorized strength. AEC has always held its Government employment level low and today has less employees than five years ago. In FY 1971 we face the need for increases in staff for our weapons program, our regulatory program where the workload is not within our control, and the new directorate for our uranium enrichment activities. We are requesting restoration of only 140 positions which would hold us at our currently authorized strength and would still require us to provide for these increased staff needs by redeployment of personnel from other activities. The supervisory function of the relatively small AEC Government staff is absolutely essential to assure effective and economical use of Government funds by our industrial operating contractors

The President

-4-

December 11, 1969

who have an aggregate employment level of more than
100,000 people.

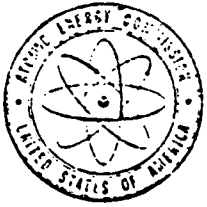
I am sending a copy of this letter to the Director of the Bureau of
the Budget.

I look forward to meeting with you and Mr. Mayo for a fuller discus-
sion of the program activities for which we are appealing restoration
of funds.

Respectfully yours,

(Signed) Glenn T. Seaborg

Chairman



UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

ENCL. BY DOE
NOV 86

COPY NO. 3
December 11, 1969

INFORMATION MEETING 981

4:20 p.m., Thursday, December 11, 1969, Chairman's Conference Room, D. C.

1. AEC 1318/27 - Comments on Gofman-Tamplin Testimony on Permissible General Radiation Exposure Levels; and
AEC 1318/28 - Gofman-Tamplin Comments re Radiation Hazards

Scheduled for discussion on Thursday, December 18, 1969. (SECY)

2. Deputy Secretary of Defense Packard's Decision re FY 1971 Budget Appeal on Weapons Item

3. Agenda for the Week of December 15, 1969

Approved. (SECY)

4. AEC 29/150 - Proposed Letter to Howard G. Vesper re Comments on 110th Meeting of the GAC

Approved with a correction. (SAGM-Rubin)

5. AEC 1323 - Electric Research Council: Proposed AEC Participation

Additional information is requested. (AGMO)

6. AEC 289/71 - Proposed Settlement of Patent Claim by E. O. Norris

Approved. (GC)

7. AEC 280/57 - Consolidation of the Headquarters Library Space

Noted. (HQS)

8. AEC 534/78 - LRL-L: Labor Situation

Noted. (LABR)

9. General Manager's Oral Report re Personnel Matter

Additional consideration is requested. (GM)

W. B. McCool
Secretary

5:10 p.m.

PRESENT:

COMMISSIONERS:

Chairman Seaborg
Commissioner Ramey
Commissioner Johnson
Commissioner Thompson
Commissioner Larson

STAFF:

Mr. Hollingsworth
Mr. Bloch
Mr. Hennessey
Mr. Rubin
Mr. Ryan
Mr. McCool
Mr. Brown*
Mr. DiNunno*
Mr. Buck*
Mr. Erlewine*
Mr. Anderson*

DISTRIBUTION:

Commissioners
General Manager
General Counsel
Secretary

*Attendance by Topic (s)

I sent letters to the Secretary of Transportation, the Chairman of the Interstate Commerce Commission and the Chairman of the Civil Aeronautics Board (copy of letter to the Secretary of Transportation attached) asking them to designate representatives of their organizations with whom the AEC staff might explore ways in which to more effectively safeguard fissionable materials against theft or other diversion to unauthorized uses during transportation.

Accompanied by Stan Schneider I went to Studio WAMU-FM at American University where I recorded "The Future of Nuclear Power" for a World Future Society radio program. The interviewer was Joseph Coates.

Friday, December 12, 1969 - D.C. - New York - D.C.

At 8:45 a.m. I met with Dr. Sigvard Eklund (Director General, IAEA). Myron Kratzer, William Yeomans and Julius Rubin were also present. Eklund advised he has presented his report to the UN on the IAEA General Conference and activities. He stated there were a number of complimentary speeches made by other countries about the IAEA. Eklund stated that with regard to our request for an environmental conference sponsored by the IAEA to be held in August at the UN Headquarters, there are administrative problems due to the UN's being on vacation that month. He stated the additional cost of bringing people, including interpreters, from Vienna might have to be borne by the U.S. Kratzer inquired whether we had specified August as the only month for the conference and agreed to work with Eklund on a possible change of date and other details. Eklund stated the 1971 Geneva Conference funding levels appear to be about the same as for the 1964 conference, which would mean some reduction in the program in view of increased cost of operations. I stated we are having similar problems but hope to present about our same number of papers by reducing the funds allocated to our exhibit. With regard to safeguards, I stated the desire for early consideration of a model agreement. Eklund indicated early discussions with Finland may establish some precedent but he wants to make certain sufficient time is available to clear this with the entire board. Eklund stated the composition of the board requires early consideration and I indicated this involves considerable political implications and is being handled by our Department of State.

I caught the 10 a.m. shuttle to New York. I was met by Walter Horn of the AEC New York Operations Office, who drove me to the Biltmore Hotel where I attended the 23rd Annual Pre-Christmas Luncheon given by William E. Knox (in the Bowman Room).

Among those present at the luncheon were: Umberto Agnelli (Director in charge of International Affairs, Fiat S.P.A., Torino, Italy), Eugene R. Black (Director, the Chase Manhattan Bank, NYC), Fletcher L. Byrom (President, Koppers Company, Inc., Pittsburgh), A. Denys Cadman (Vice President, Gulf Oil Corporation, NYC), Jean Cattier (Chairman, European-American Banking Corporation, NYC), F. R. Esty (Chairman, U.S. Banknote Corporation, NYC), The Honorable James A. Farley (Chairman, The Coca-Cola Export Corporation, NYC), N. E. Halaby (President, Pan American World Airways, NYC), Gabriel Hauge (President, Manufacturers Hanover Trust Company, NYC), E. J. W. Hellmuth (Director, Midland Bank Ltd., London), Jack R. Howard (President, Scripps-Howard Newspapers, NYC), John



UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

UNCL. BY DOE
NOV 86

DEC 11 1969

The Honorable John A. Volpe
Secretary of Transportation

Dear Mr. Secretary:

The regulations of the Atomic Energy Commission dealing with the protection of public health and safety against radiological hazards have exempted common carriers and certain others from the scope of the Commission's regulatory activities. The Interstate Commerce Commission and other agencies having responsibility for the regulation of carriers have cooperated and consulted with the Atomic Energy Commission in the regulation of shipments of such materials in such a way as to furnish adequate protection of the public from the point of view of health and safety.

As of course you know, the problem of the protection of fissionable materials against theft or other diversion to unauthorized uses has been in recent years a matter of particular international concern and has emerged as an important element of national policy.

The Commission is very much interested in exploring ways in which the safeguarding of such materials during transportation might most effectively be accomplished, with due regard for the needs of the transportation industry and of its customers.

We should be very much interested in having members of the staff of the Atomic Energy Commission and staff members of the Department of Transportation and its component agencies, the Interstate Commerce Commission and of the Civil Aeronautics Board discuss methods by which these purposes might be effectuated. We should appreciate your designating representatives in your organization with whom the Commission's staff might communicate in order to set up a working group to accomplish that result.

For your information, I have sent similar letters to the Chairman, Interstate Commerce Commission, and to the Chairman, Civil Aeronautics Board.

Sincerely,

A handwritten signature in cursive script, appearing to read "Glenn Seaborg".

Chairman

D. Iversen (President, Mesta Machine Company, Pittsburgh), J. K. Jamieson (Chairman, Standard Oil Company, NYC), P. E. Janssen (Executive Director, Societe Generale de Banque, Brussels), R. L. Jeans (Vice President, Westinghouse Electric International Company, NYC), N. B. Karakoulakis (President, Heirs B. Karakoulakis Ltd., Athens), Henry Kearns (President and Chairman, Export-Import Bank of the U.S., Washington, D.C.), R. E. Kirby (President, Industry and Defense Products, Westinghouse, Pittsburgh), J. Burke Knapp (Vice President, International Bank for Reconstruction and Development, Washington), E. W. B. Lewis (Vice President, Finance, Westinghouse Electric International Company, NYC), John M. Lyons (President, Chase International Investment Corporation, NYC), Edmund F. Martin (Chairman, Bethlehem Steel Corporation), William McC. Martin, Jr. (Chairman, Board of Governors, Federal Reserve System, Washington), A. B. McCloskey (Vice President, Westinghouse Electric International Company, NYC), John J. McCloy (Partner, Milbank, Tweed, Hadley and McCloy, NYC), James F. Miller (President Blyth & Company, Inc., NYC), George S. Moore (Chairman, First National City Bank, NYC), Robert D. Murphy (Chairman, Corning Glass International, NYC), Emil J. Pattberg, Jr. (Chairman, The First Boston Corporation, NYC), William S. Renchard (Chairman, Chemical Bank New York Trust Company, NYC), Roberto Rocca (President, Techint Engineering Company, Buenos Aires), Walter C. Sauer (First Vice President and Vice Chairman, Export-Import Bank of the U.S., Washington), Robert Schasseur (Administrateur de Societes, Paris), P. O. Schweitzer (Managing Director, International Monetary Fund, Washington), John W. Simpson (President, Power Systems, Westinghouse Electric Corporation, Pittsburgh), Kenneth W. Smith (President, U.S. Banknote Corporation, NYC), Theodore C. Sorensen (Partner, Paul, Weiss, Rifkind, Wharton & Garrison, NYC), Claude O. Stephens (Chairman, Texas Gulf Sulphur Company, NYC), E. McL. Tittmann (Chairman, American Smelting and Refining Company, NYC), Austin J. Tobin (Executive Director, The Port of New York Authority), Juan T. Trippe (Honorary Chairman, Pan American World Airways, NYC), Jan R. M. van den Brink (Managing Director, Amsterdam-Rotterdam Bank N.V., Amsterdam), Paul Verhagen (President, European-American Banking Corporation, NYC), Samuel C. Waugh (Consultant, Washington, D.C.) and John M. Will (Chairman, American Export Isbrandtsen Lines, NYC).

I sat between Esty and Murphy and across from Cattier, Iverson and Karakoulakis. I had a good opportunity to talk to Murphy who has had a long and interesting career in Government, e.g., he knew Adolf Hitler in the early 1920's during his assignment in Germany. I also talked to Ted Sorensen about his current race for the Senate from New York; he was interested in my reaction to working in a Republican Administration.

I flew back to Washington on American Flight No. 395, leaving at 3:30 p.m. and arriving about 4:30. I then went to the office to sign a few papers, etc.

I received a memo from Vic Corso advising that BOB would not approve an apportionment request for \$3 million added by Congress for the MSBR to the FY 1970 budget request.

I sent a letter (copy attached) to Howard G. Vesper (Chairman, GAC) commenting on his letter of November 12, which reported on the 110th Meeting of the GAC in Washington, November 10-12.



UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

DEC 12 1969

UNCL. BY DOE
NOV 86

Mr. Howard G. Vesper, Chairman
General Advisory Committee to the
U. S. Atomic Energy Commission

Dear Howard:

Supplementing my letter of November 24, we have the following comments on your letter of November 12 reporting on the 110th Meeting of the General Advisory Committee in Washington, D. C., November 10, 11 and 12, 1969.

Controlled Thermonuclear Research

The Commission is appreciative of the comments of the GAC on the report of progress being made in the controlled thermonuclear program. The Commission will continue to provide encouragement and take all practicable steps to obtain the necessary funds to permit this program to proceed on a most efficient basis.

Environmental Effects

We very much appreciate the Committee's interest in the problem of public acceptance of nuclear power and the time you devoted to the subject at your last meeting. We share the Committee's conviction that nuclear fuel as an energy source will produce minimal deleterious effects on the environment and that we must reassure the public of that fact.

We note the Committee believes that: The AEC should expand its public relations and educational role; should maintain close coordination with other federal agencies; should expand its research program on environmental effects; should play a more aggressive role in thermal effects even though it does not have legal authority in this area; should continue to give high priority to the consideration of environmental effects in the evaluation of possible future reactor systems.

I believe the first three points were covered during the staff's discussion with the Committee. We are pleased with the Committee's support of these plans. Relative to thermal effects, AEC has endorsed the proposed Water Quality Improvement Act of 1969 (S.7 and H.R. 4198) which would require applicants for Federal licenses to obtain advance certification from the appropriate state or interstate water pollution control agency before the license can be issued. We also obtain advice from the Fish and Wildlife Service of the Department of Interior on the ecological effects of thermal discharge for each proposed reactor. We have been sending this advice to the applicant with strong urging

that the suggestions be followed. In addition, the Commission plans to review with the regulatory and operating staff whether it would be desirable and feasible to seek or assume broader responsibilities in this area as the Committee suggests. We would welcome any specific suggestions the Committee may wish to make.

On the last point, the influence of the environmental effects on possible future reactor systems, this is a consideration which we plan to continue to take into account. We are especially conscious of the importance of this matter in view of both the growing public concern and the growing public dependence on nuclear power.

In view of the importance of the problems of environmental effects to public acceptance of nuclear power and the Committee's deep interest in the subject, we would be pleased to provide the Committee with a status report on our activities in this area at your next meeting.

Reactor Development

The comments of the Committee regarding the Space Nuclear Systems Division activities are appreciated. We hope we will have additional information on the role of nuclear devices for space use by the February meeting.

We were pleased to obtain the views of the Committee on the problems being faced in the advanced reactor program and the Liquid Metal Fast Breeder Program. We will continue to exert every effort to overcome the existing difficulties and provide all possible support for successful results in the Commission's highest priority program, the LMFBR. We will continue to keep the Committee informed of significant developments.

Safeguards and Materials Management

The Commission is pleased to note the Committee's conclusion that good progress is being made in measurement techniques to support varied research programs.

We share the Committee's view that the possibilities for large scale diversion during domestic transport of SS materials are of utmost concern in future operations. The Office of Safeguards and Materials Management is continuing to work diligently to develop firm policies and procedures to reduce these possibilities. Additionally, the Office of Safeguards and Materials Management and the Division of Nuclear Materials Safeguards are continuing discussions with the AIF to insure a better understanding of mutual problems related to safeguards and industry.

Subject only to more severe budgetary limitations, the Commission plans to provide safeguards with adequate funding support.

The Commission agrees with the Committee that good measurements may be very critical in the foreign market in order to prevent diversions and that the problems associated with control of fissionable materials abroad may be aggravated in centrifuge fuel enrichment areas where only perimeter surveillance may be allowed. In this connection, the Commission has asked the Advisory Committee on Nuclear Materials Safeguards to establish a special subcommittee to examine the subject of safeguards for fuel enrichment facilities. Such a subcommittee, chaired by Dr. Charles Thornton and composed of Drs. Manson Benedict and Norman Ramsey, has been established and they have held their first meeting on November 13. We are hopeful that this subcommittee will identify some alternative courses of action for the Commission to consider to deal effectively with this problem.

We also agree with the Committee's view that the offer by the U.S. to be partially placed under IAEA safeguards is a distinct positive factor in the acceptance of the IAEA system by the international community.

Uranium Enrichment

The Commission is very much appreciative of the views of the Committee concerning the future course of the Commission's gas centrifuge development program. We are hopeful that the program can be conducted in accordance with current plans and with continued technical success. We will continue to keep the Committee informed of all significant developments in this program.

Anti-Ballistic Missile Program

The Commission is very much appreciative to receive the Committee's comments in connection with the ABM program.

Reactors Subcommittee Review

The Commission was gratified to learn of the Committee's reaction to the light water reactor briefing and your assessment of the high probability of success of the program.

Concerning the heavy water reactor program in Canada, we have continued to follow its progress through (1) the formal AECL reports on technological accomplishments submitted under the USAEC/AECL Cooperative Program, (2) the reports of the USAEC Scientific Representative at Chalk River and (3) the personal contacts required to carry out the AEC-financed R&D under the Canadian Cooperative Program.

Regarding Canadian progress with the Heavy Water Organic Coolant Reactor (HWOCR) concept, we agree that successful demonstration to date in WR-1 represents substantial progress. The use of Zircaloy for pressure tube and cladding and the means for controlling organic fouling were prime considerations in

the HWOCR program at the time of cancellation. We continue to believe that long-term experience is required to (1) establish the high temperature and irradiation resistance characteristics of the organic coolant and (2) confirm the long-term performance of the fuel, cladding, and pressure tubes.

We shall continue to follow the progress of the Canadian heavy water reactor program through technical liaison under the USAEC/AECL Cooperative Program and sincerely hope that the Canadians have continued success.

The Commission very much regrets the necessity of having to close our Chalk River Office, particularly in view of the strong support which it has received from the GAC. The decision to close the office was reached reluctantly following receipt of a Presidential directive to all government agencies requiring a 10% reduction of employment overseas. After a careful review of our overseas staffing requirements, it was concluded that the elimination of the Chalk River Office would do the least damage to our International Cooperative program. We should like to advise the Committee that prior to reaching the decision to close the office it was discussed with Mr. Lorne Gray and agreement was obtained with him that adequate liaison functions of the responsible organizations could be maintained by direct contact with a designated staff member of our Division of International Affairs in Washington.

Fermi Award for 1970

We are looking forward to receiving the Committee's nominations for the 1970 Fermi Award.

We are also looking forward to the next meeting of the Committee to be held in the Savannah River Plant on February 25, 26 and 27. Commissioner Larson plans to join the Committee for that meeting.

Cordially,



Chairman

I went home and picked up Lynne and Bill (Helen was somewhat sick from her shots for her forthcoming African trip and didn't come with us) and went to the Swedish Embassy to attend the Lucia Day reception. At the Embassy I introduced Lynne and Bill to the George Meanys, Abe Fortas, Justice William Douglas, Ambassador Parsons, Deena Clark, the William Wirtzes, the Hobart Taylors and others.

Saturday, December 13, 1969 - D.C.

I worked at the office until 1 p.m. and then had lunch with Justin Bloom at the GJS Ranch. Some of the ACRS members were also having lunch there.

During the morning I called Lee DuBridge to tell him that I have sent the appeal letter to the President and that if we don't get the \$10 million for physical research it will make a big difference and create a lot of attention because we will have to cut out many university research contracts including the Cambridge cyclotron, the PPA accelerator, the Yale accelerator, the Columbia Van de Graaff, research contracts at Johns Hopkins, Harvard, Northwestern, Illinois, Georgia Tech and many, many others. I said that this would have a terrific impact and would result in voluminous correspondence. I said I thought it would also have a political impact and that the noise level of reaction to the cut would be all out of proportion to the money saved. DuBridge said that in connection with this general problem he has recently pointed out to the President that the idea has been thrown around that university research is to help universities whereas the major objective of university research is to help the agencies. He told the President that we need the support of universities, their people and their research.

The President told DuBridge that he would like to take a look at something on this; so DuBridge is asking me, Tom Paine, Melvin Laird and a couple of others, who have major university support programs, to write a letter indicating the importance to our agency of having university people working on problems relevant to our responsibilities. He said that AEC, for instance, has two reasons for supporting research: (1) in order to implement our applied work in atomic energy and nuclear reactors and (2) the law under which we operate specifies that one of our functions is to support research in nuclear fields. DuBridge said he would appreciate my writing a not too extensive letter along these lines. I said I would certainly be glad to do this. I said I have not spelled out too much in my appeal letter to the President because I presumed that I would get to meet with him on our FY 1971 budget.

In the afternoon I took a hike in Rock Creek Park with Lynne and Bill, Stan and Renee Schneider and their friend, Louise Behr, and Suki. We started at Pierce Mill and hiked to Fort DeRussy and back.

Bill, Lynne and Dianne's friend, Brendan Canary, had dinner with us; Brendan spent the night.

Sunday, December 14, 1969

Suki and I took a hike in Rock Creek Park, starting at Oregon and Nebraska Avenues, going north on the White Horse Trail to Cross Trails 3 and 4 and back to our starting point.

I went to the Washington Redskins-New Orleans Saints football game in Kennedy Stadium with Eric, Lynne and Bill. The Redskins won, 17-14.

After the game, Eric, Dianne, Brendan and I went to a lot near Chevy Chase and purchased our Christmas tree. Brendan had dinner with us.

Monday, December 15, 1969 - Germantown

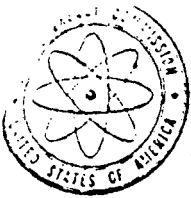
Stan Schneider and I went down to the DPI recording room where, with the help of Elton Lord, I recorded for about nine minutes excerpts from my Nobel Symposium speech, "Science, Technology and the Citizen" for the Voice of America End of the Year Program.

At 10 a.m. I presided over Information Meeting 982 (notes attached). We discussed the problem of higher costs per unit of separative work for highly enriched, as compared with low enrichment U-235 (which, of course, has an impact on reactors like the HTGR) and decided to continue our policy of having one charge corresponding to average cost. We also discussed the proposal of the BOB to have NASA make a study to determine whether NASA should fund the development of SNAP devices and their programs; we decided to oppose this proposal for such a study. We also discussed the suggestion by Vic Bond of Brookhaven, who is chairman of the Subcommittee on Radiobiology of the NAS-NRC Committee on Nuclear Science, that there be a study of nuclear power and its attendant radiation effects directed toward the social risk to man and the genetic and somatic effects of radioactive effluents. We will keep in close touch with the proposal for this study.

I had lunch in the cafeteria with Paul McDaniel and Julie Rubin to discuss the impact of the President's \$10 million reduction for physical research in the FY 1971 budget on our national laboratories, university contracts, etc.; this will have a tremendously adverse impact, and we must do everything possible to seek a reversal of this decision.

The other Commissioners and I, Bob Hollingsworth, George Kavanagh, Milt Shaw and others met with Byron Price (General Manager, Eugene Water and Electric Board, Eugene, Oregon), who was accompanied by John A. Tiffany (Chairman of the Board, EWEB), Trygve S. Vik (Commissioner, EWEB), General E. C. Itschner (Vice President, Engineering and Construction, PG&E), N. W. Richards (Head, Nuclear Power Division, PP&L), Jack T. Stiles (Vice President, Engineering & Power Operations, PP&L), Francis L. Adams (Assistant Vice President, PP&L), A. V. Peterson (Nuclear Consultant, FBD), Kenneth W. Sieving (Project Engineer, EWEB Project), C. F. Jones (Group Vice President, NUS) and J. S. Scarborough (Senior Staff Consultant, NUS). The purpose of the meeting was to discuss the interest of EWEB in acquiring a 1,000 Mwe HTGR. This raises such considerations as the Commissioners' future policy regarding: (1) the buyback of U-233, (2) guaranteed reprocessing, (3) support for the HTGR recycle development program, (4) availability and costs of highly enriched U-235, and (5) lease of Government-owned uranium and waiver of use charge.

I indicated a high degree of support for the HTGR by the Commission and our delight that they are interested in this concept. We discussed our views on the questions they raised and indicated that these would have to be answered more fully after further study. They will pose the questions



UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

ENCL. BY DOE
NOV 88

COPY NO. 3
December 15, 1969

INFORMATION MEETING 982

9:55 a. m., Monday, December 15, 1969, Room A-458, Germantown

1. Agenda Changes for the Week of December 15, 1969

2. AEC Citation Ceremony for Dr. Lauritson Taylor

To be rescheduled. (SECY)

3. Draft Letter to Dr. Lee DuBridge re Effects of Fiscal Year 1971 Budget Cuts

The Chairman said a letter is in preparation. (R)

4. December 1 Letter from Senator Muskie re Testimony of Drs. Gofman and Tamplin Before Subcommittee on Air and Water Pollution

An early response is requested. (AGM)

5. December 12 Memorandum from Federal Radiation Council re Budget Appeal for Fiscal Year 1971

Staff will inform FRC staff of AEC support of their recommendation. (AGMO)

6. AEC 1283/58 - NAL: Proposed Letter re Effects of FY 1970 Construction Funding Level

Approved with changes. A meeting will be scheduled in early January. (R-SECY)

7. AEC 289/72 - CTR Patent Application Implications

Staff recommendations are requested. (C-GC)

8. AEC 89/184 - Swiss National: Proposed Assignment at LRL-L
Approved. (AGMIA)
9. AEC 783/147 - Draft Reply to Director, National Resources Programs Division, BOB
Approved with a change. (GC)
10. AEC 1128/8 - Proposed Letter to Department of the Air Force re AEC's Phaseout of Work at Evendale
Revisions are requested. (DC)
11. AEC 1000/148 - Funding for the Space Nuclear Power Development Program
The General Manager's recommendation re a position to take in discussions at the BOB is approved. (OC)
12. December 11 Memorandum from General Crowson and Mr. Kratzer re Loss of Euratom Source Material
Staff will report further. (AGMIA-SMM)
13. AEC 695/52 - Cost of Separative Work at Higher U-235 Assays
The Commissioners requested staff development of a draft policy statement. (AGMP&P-OC)
14. NTS Events (See General Giller's December 12 Memorandum)
Noted with a request. (AGMMA-Rubin)
15. Staff Plans re Apportionment of Fiscal Year 1970 Funds
Noted. (OC)
16. Draft Letter from NAS Subcommittee on Radiology
Staff will discuss with Mr. Bond, BNL, and others, and the Joint Committee is to be informed. The Chairman will call Dr. Handler, President, NAS, at an appropriate time. (AGM)

17. General Counsel's Oral Report on Contract Problem at ALOO

W. B. McCool
Secretary

12:05 p. m.

PRESENT:

COMMISSIONERS:

Chairman Seaborg
Commissioner Ramey
Commissioner Johnson
Commissioner Thompson
Commissioner Larson

STAFF:

Mr. Hollingsworth
Mr. Bloch
Mr. Brown
Mr. Hennessey
Mr. Abbadessa
Mr. Rubin
Mr. Kull
Mr. McCool
Mr. Erlewine*
Mr. Kinney*
Mr. McDaniel*
Mr. Vinciguerra*
Mr. Marshall*
Mr. Friedman*
Mr. Schur*
Mr. Kohler*
Mr. Hiestand*
Mr. Brenner*
Mr. Kratz*
Mr. Quinn*

DISTRIBUTION:

Commissioners
General Manager
General Counsel
Secretary

*Attendance by Topic (s)

in greater depth a little later. They are evaluating a proposal for an HTGR in competition with proposals from the four vendors of light water reactors. The proposals are due on March 15 and the choice will be made by early June of next year.

At 3:30 p.m. I presided over Commission Meeting 2401 (action summary attached). We were briefed on the history of PAL devices in connection with the desire of Commissioner Ramey to force the DOD to pay more attention to the wishes of the AEC in establishing a policy for unlocking the devices. I doubt that this is a realistic aim.

I participated in a ceremony in the auditorium in which division leaders participating in the Combined Federal Campaign were given certificates related to their 100 percent accomplishments. I presented signed letters to those who have given at least one percent of their salary to the CFC. Pictures were taken of the one percenters and the division leaders that had reached 100 percent quota in participation.

At 6 p.m. I watched President Nixon's TV speech in which he announced that he is authorizing a further reduction of 50,000 U.S. troops in Vietnam to be in effect by April 15, 1970.

I received NSSM-71 (copy attached), signed by Henry A. Kissinger, which advises that the President has directed that a review be conducted of our policies governing the access by foreign countries to certain advanced technologies (including nuclear power reactors) vital to our national security, with full consideration to the necessity for free exchange of scientific knowledge when national security is not impaired.

I received a memorandum from President Nixon addressed to the Heads of Executive Departments and Agencies (copy attached) concerning his approval of H.J. Res. 966, which provides temporary appropriations to finance governmental programs for which FY 1970 appropriations have not been enacted as of October 31, 1969. He voices his deep concern with the particular terms which would permit some agencies, such as the Department of Health, Education and Welfare, to commit the government to make expenditures at a rate inconsistent with his efforts to keep the budget under strict control and thereby restrain inflation. He asks full cooperation in demonstrating our fiscal responsibility.

I received a letter from C. Stanley Blair thanking me on behalf of Vice President Agnew for the copy of Atomic Shield that I sent to him.

Tuesday, December 16, 1969 - Bethesda - D.C.

Upon our arrival in Bethesda, Commissioner Larson and I, accompanied by Harold Price, Chris Henderson and Julie Rubin, toured the new automated secretarial pool in the Bethesda office.

At 9:40 a.m. I presided over Regulatory Information Meeting 379 (notes attached). We discussed the question of amending the regulations (10 CFR, Parts 20 and 50) to make the control of releases of radioactivity to the environment from nuclear power plants more stringent. Thompson and Larson spoke for minimal changes. I favored making the regulations more



UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

December 16, 1969

UNCL. BY DOE
NOV 88

Approved _____
RHM

Date _____

R. E. Hollingsworth, General Manager

ACTION SUMMARY OF MEETING 2401, MONDAY, DECEMBER 15, 1969, 3:25 P.M.,
ROOM A-410, GERMANTOWN, MARYLAND

SECY:SBR

Commission Business

1. Minutes of Meetings 2395, 2396, 2397 & 2398

Approved, as revised.

The Commission requested further discussion of the time period of
guaranteed purchase price for U-233. (SECY)

2. AEC 25/432 - Proposed New Safety Rules

Approved. (AG/MA)

3. Briefing on PAL Issues
AEC 25/419 - Interim Approval and PAL Issues in Safety Rules

Discussed.

To be rescheduled. (SECY)

4. TRUE Magazine Article re Weapons Diversal

The Commission requested a staff report. (AG/MA)

5. Briefing on Recent Developments in NARO

Commissioner Ramey requested additional discussion of policy and
planning procedures and related matters. (AG/MA/SECY)

W. B. McCool
Secretary

- cc:
Chairman Seaborg
Commissioner Ramey
Commissioner Johnson
Commissioner Thompson
Commissioner Larcof

NATIONAL SECURITY COUNCIL
WASHINGTON, D.C. 20506

UNCL. BY DOE
1988

August 14, 1969

National Security Study Memorandum 71

TO: The Secretary of State
 The Secretary of Defense
 The Secretary of Commerce
 The Director of Central Intelligence
 The Director, Office of Science and Technology
 The Chairman, Atomic Energy Commission
 The Administrator, National Aeronautics
 and Space Administration
 The Director, Arms Control and Disarmament Agency

SUBJECT: Advanced Technology and National Security

The President has directed that a review be conducted of our policies governing the access by foreign countries to certain advanced technologies vital to our national security. The review will consider nuclear power reactors, ballistic missile systems, advanced computers, and other scientific and technological devices and information whose acquisition from the United States by other nations would assist in the development or improvement of independent national nuclear weapons capabilities or strategic delivery systems.

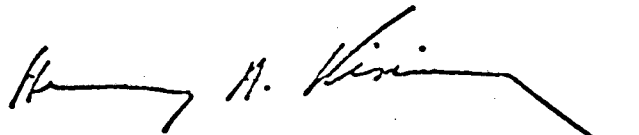
The review should clarify the purposes and scope of existing policies and discuss the major issues posed by the export of sensitive technologies worldwide and with respect to specific countries. As a result of the review, recommendations should be offered on alternative policies to regulate the export of these technologies and on various procedures for policy implementation. Consideration of the impact on friendly and hostile governments should be included in reporting the assets and liabilities of each option. More specifically in recommending alternatives, the report should:

- Consider any further obligations of the United States Government with regard to advanced technologies that result from (a) the commitment of this government to a single global commercial communications satellite system, and (b) the nuclear Non-Proliferation Treaty should it come into force;

- Make explicit those policies applicable to all countries; when a policy is not universally applicable, adequate guidelines should be prepared for identifying those countries, or types of countries, to which it is directed;
- Propose criteria to be applied in considering requests for export licenses or for government financing of foreign projects involving these advanced technologies;
- Offer any necessary procedures to allow the United States Government to monitor policies governing advanced technologies.

This review should give full consideration to the commitment of the United States Government to international cooperation in the peaceful application of nuclear and space technologies and to the necessity for free exchange of scientific knowledge when national security is not impaired.

This review will be conducted by a committee to be chaired by a representative of the Secretary of State. The committee will include representatives of the addressees of this memorandum and the Assistant to the President for National Security Affairs. The committee will forward its report to the NSC Review Group by September 30, 1969.



Henry A. Kissinger

cc: The Chairman, Joint Chiefs of Staff
Director, Office of Emergency Preparedness

THE WHITE HOUSE

WASHINGTON

November 14, 1969

ENCL. BY DOE
NOV 26

MEMORANDUM FOR THE HEADS OF
EXECUTIVE DEPARTMENTS AND AGENCIES

I have approved H.J.Res.966, which provides temporary appropriations to finance governmental programs for which 1970 appropriations have not been enacted as of October 31, 1969.

This legislation is required for continued operation of our government. But I must express my deep concern with the particular terms which would permit some agencies, such as the Department of Health, Education, and Welfare, to commit the government to make expenditures at a rate inconsistent with our efforts to keep the budget under strict control and thereby restrain inflation.

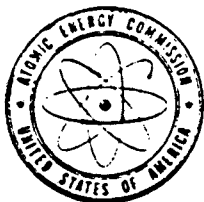
I am fully aware of our needs in health, education, training, and other social areas, and have reflected those in my budget proposals as best I can. At the same time, I feel strongly that the soundness and stability of our economy demand stringent fiscal measures on all fronts, and that such stringency will better serve the long-run interests of all the American people.

I take this occasion, therefore, to reconfirm my statement of August 12, 1969, on the action by the House of Representatives that added \$1.1 billion to the appropriations for the Department of Health, Education, and Welfare when I stated "my intention not to spend in this fiscal year any funds appropriated in excess of my budgetary estimates of April this year. No commitments will be made to spend these additional appropriations until the Congress has completed action on all appropriation bills and revenue measures."

Any increases in appropriations that permit spending beyond that level must be offset by equivalent reductions, either by the Congress or by the executive branch. Therefore, I direct you to make no commitments at this time which will lead to spending in excess of the 1970 outlay ceiling which the Director of the Bureau of the Budget communicated to you at my direction.

I expect your full cooperation in demonstrating our fiscal responsibility. It is imperative that this Administration do everything in its power to fight the inflationary pressures which are eroding the purchasing power of the American people.

A handwritten signature in black ink, appearing to read "Hubert H. Humphrey". The signature is written in a cursive style with a long, sweeping underline.



UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

ENCL. BY DOE
NOV 86

December 16, 1969

REGULATORY INFORMATION MEETING 379

9:40 a.m., Tuesday, December 16, 1969, Room P-118, Bethesda

EXECUTIVE SESSION

1. Planning for Geneva IV

Commissioner Thompson will proceed. Staff will check the funding item.
(Rosen-OC-SECY)

2. Executive Session Item

3. ACRS Consideration of Northern States Power Company (Monticello),
Docket No. 50-263, January 8, 1970

4. Executive Session Item

5. Mr. Price's December 10 Memorandum re Sea Disposal by Dupont Company
of Chemical Plant Effluents Containing Trace Quantities of Uranium

To be scheduled. (SECY)

6. Chairman's Letter to Dr. Lee A. DuBridge, President's Science Advisor

Approved and dispatched. (SECY)

7. Mr. Price's December 12 Memorandum re Proposed Amendments to Parts
50 and 20 on Control of Radioactive Effluents from Nuclear Power Reactors
(See also Mr. Price's September 8 Memorandum)

Staff will develop alternatives for discussion with the Commissioners
and the ACRS. (ADRA-SECY)

8. Mr. Price's November 26 Memorandum re Denial of Proposed Change No. 26 for Pacific Gas and Electric Company's Humboldt Bay Unit No. 3 - Docket No. 50-133

To be revised and rescheduled. (ADRA-SECY)

9. Mr. Price's September 8 Memorandum re Early Hearings on Site Suitability (See also Dr. Buck's September 25 Memorandum)

Staff will develop recommendations for Commission consideration.
(RPS-SECY)

10. Mr. Price's December 12 Memorandum re Revised Procedures for Staff Papers on Rule Making

Approved with a change. (ADRA)

11. Status of Proposed Rules (See Item 7, Page 5 of Pending Docket Digest dated December 11, 1969)

Staff action is requested. (ADRA-SECY)

12. Mr. Price's December 11 Memorandum re Williams and Morrow "Recommendations for Radioactive Air Pollution Control for Colorado"

A briefing in late February 1970 is suggested. (SACM for Env. Affs. -ADRA)

13. Mr. Price's December 12 Memorandum re Proposed Amendment of 10 CFR Part 20 - Transportation of Licensed Materials

Approved. (SECY)

W. B. McCool
Secretary

12:05 p.m.

PRESENT:

COMMISSIONERS:

Chairman Seaborg
Commissioner Ramey
Commissioner Johnson
Commissioner Thompson
Commissioner Larson

STAFF:

Mr. Price
Mr. Beck
Mr. Hennessey
Mr. Henderson
Mr. Rubin
Mr. Fremling
Mr. Helfrich
Mr. Rosen
Mr. Suprgeon
Mr. Griffin
Mr. Mr. Bloch
Mr. McCool
Mr. Schur*
Mr. Morris*
Mr. Wells*
Mr. Buck*
Mr. Biles*
Mr. Case*
Mr. Mann*
Mr. Yore*
Mr. Rowden*
Mr. DiNunno*
Mr. E. Price*
Mr. Shapar*
Mr. Low*
Mr. Kronblith*

DISTRIBUTION:

Commissioners
Dir/Regulation
General Manager
General Counsel
Secretary

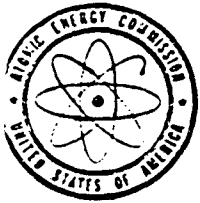
*Attendance by Topic (s)

stringent; Ramey tended to agree, while Johnson's position seemed to be somewhat in between. This matter will be discussed further with the ACRS. We also discussed the matter of an early public hearing on site suitability for nuclear power reactors as recommended by the internal study group under the chairmanship of Harold Mangelsdorf. The effect of this, if adopted, may be to move to an earlier date in the regulatory process the hearing for a construction permit for a power reactor.

At 12:05 p.m. I presided over Regulatory Meeting 281 (action summary attached).

Julie Rubin and I then went directly to the White House Mess where we had lunch with Peter Flanigan and William Kriegsman. We ate in a special new dining room located on the right side of the hall from the regular White House Mess. Also in the room, at a separate table, were Bryce Harlow and Sam Hughes (former Deputy Director of the BOB), and at another table, Vice President Agnew.

During lunch we reviewed a number of topics as follows: (1) The organization of the separate directorate for future operation of the gaseous diffusion plants. I reviewed three possible staffing arrangements and indicated that AEC favors proceeding along the lines of a very small separate staff under the General Manager with a strong top-level person in charge. Flanigan promised to let me know soon if any different approach is desired; (2) Dr. Smyth's replacement as Ambassador to the IAEA. Flanigan reported a commitment from DuBridge that Smyth would be replaced by the end of the year and also referred to our discussion about Smyth's being retained on the occasion of our first meeting. De Hoffmann was suggested as his replacement. It was agreed that I would identify other names to consider. Flanigan agreed to a replacement's being postponed until after Smyth attended the February meeting of the IAEA with the objective of having the replacement on board in time for the June meeting. Smyth could plan on attending the June meeting to introduce his replacement; (3) FY 1971 budget and appeals. The impact of the \$10 million reduction in research funds was carefully reviewed. The letter to DuBridge detailing this matter was noted (copy attached). All the other items in my letter of December 11 to the President were discussed. Flanigan emphasized the President's concern about a balanced budget but appeared somewhat sympathetic to the items discussed. The door seems open for substitution within the existing AEC ceiling. The DOD items were noted with specific reference to the additional recent request by Packard to add another \$10 million for the artillery shell; (4) The shutdown of the two K reactors was particularly reviewed, and I emphasized the impact on the Richland area plus the need for a contingency supply of plutonium for future weapons systems. The political significance of Senator Jackson's running for reelection this year was noted; (5) We discussed Holifield's speech at the AIF meeting and reviewed his plans for a blue ribbon panel to study management of the breeder development program; (6) The status of the Minnesota regulatory issue was reviewed and Flanigan still retained a strong position on letting any State take steps to require operation at more restrictive levels than required by the AEC. He referenced a conversation with Tommy Thompson on this matter as not being too convincing in support of the AEC position; (6) A brief reference to the selection of a new laboratory director for Los Alamos; (7) As a parting topic I mentioned the Dutch submarine matter. Flanigan was not familiar with the subject, and



UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

ENCL. BY DOE
NOV 86

December 16, 1969

Approved _____

HLP

Date _____

H. L. Price, Director of Regulation

ACTION SUMMARY OF REGULATORY MEETING 281, TUESDAY, DECEMBER 16, 1969,
12:05 p.m., ROOM P-118, BETHESDA OFFICE

SECY:JFB

Commission Business

1. Minutes of Regulatory Meeting 279

Approved, as revised. (SECY)

2. AEC-R 30/95 - Proposed Amendment to Part 30 - Exemption of Microwave Receiver Protector Containing Tritium

Approved. (RPS)

3. AEC-R 38/18 - Proposed Amendments to 10 CFR Part 73 - Physical Protection of SNM in Transit

Approved. (NMS)

4. AEC-R 30/96 - Petition to Amend 10 CFR 30 to Modify the Present Exemption for Lock Illuminators Containing Tritium or Promethium-147

Approved. (RPS)

W. B. McCool

W. B. McCool
Secretary

cc:

Chairman Seaborg
Commissioner Ramey
Commissioner Johnson
Commissioner Thompson
Commissioner Larson



UNITED STATES
ATOMIC ENERGY COMMISSION

WASHINGTON, D.C. 20545

DEC 16 1969

ENCL. BY DOE
NOV 88

Dr. Lee A. DuBridge
Science Advisor to the President
1600 Pennsylvania Avenue, N.W.
Washington, D. C. 20500

Dear Lee:

The full benefits from the development of nuclear energy can be obtained only by achieving a thorough and deep understanding of the underlying basic scientific fields. To this end, the Congress, when it established the Atomic Energy Commission, directed it to assist in the acquisition of an ever-expanding fund of theoretical and practical knowledge in fields related to atomic energy. The Atomic Energy Commission is convinced that we have the mission and duty to obtain the basic information needed to implement our applied work on a solid foundation.

In acquiring basic research results, the Atomic Energy Commission must go to the people and to the institutions that can best get them for us. Our large laboratories, with their specialized equipment and unique interdisciplinary teams, concepts, and traditions are used whenever possible, because these laboratories are the places where the results of mission-oriented basic research are used in applied nuclear technology. In addition, many of the nation's best scientists, with interests parallel to ours, are located in the universities. To secure their services, it is essential that we conduct some of our basic and applied research activities in the universities.

In our letter of December 11, 1969, to President Nixon, we requested restoration of \$11.9 million in outlays in FY 1971 for basic research in the physical and life sciences (\$10.0 million and \$1.9 million respectively). The basis for this appeal is readily documented.

The Physical Research Program costs for FY 1970 are estimated at \$278.18 million. To hold this program to the present FY 1970 level of \$278.2 million in FY 1971, while meeting our high priority needs, will require the AEC to impose severe reductions in our activities.

In the High Energy Physics Program it is necessary, in order to meet our commitments, to increase the operating funds in FY 1971 over FY 1970 by \$2.9 million for the 200 Bev Accelerator, by \$0.84 million for the Stanford Linear Accelerator, and by \$0.925 million for the converted Alternating Gradient Synchrotron Accelerator at Brookhaven National Laboratory. To provide these sums in FY 1971 from the \$121.0 million now allocated to us (the FY 1970 level is \$120.53 million), we will have to terminate the operation of the Princeton-Pennsylvania Accelerator and the Cambridge Electron Accelerator and hold all other activities to their FY 1970 levels, or, in some cases, to even less. If our appeal for restoration of \$10 million is approved, we could add \$4.0 million to the High Energy Physics Programs as follows: continued operation of the Princeton-Pennsylvania Accelerator (\$1.35 million) and the Cambridge Electron Accelerator (\$1.15 million); additional effort at the 200 Bev Accelerator (\$0.4 million); continuation of FY 1970 operating levels at the Zero Gradient Synchrotron and Bevatron (\$0.3 million); and maintenance of the university user programs at about their present level (\$0.8 million).

The high priority Controlled Thermonuclear Research Program was allowed a \$2.32 million increase over the FY 1970 level (\$27.68 million) by the Bureau of the Budget. This increase, together with funds to be obtained by reprogramming the base budget, will allow the Controlled Thermonuclear Research scientists to initiate some of their most urgently needed new experiments. If our \$10.0 million appeal is approved, we would allocate \$0.35 million to this program, thus preventing the termination of that amount of important work.

The constraints of the Bureau of the Budget allowance will require a reduction of \$2.67 million in the Other Physical Research Programs below their FY 1970 level of \$129.97 million. This reduction is offset by the increase of \$0.47 million in High Energy Physics and \$2.32 million in Controlled Fusion research. The actual reductions in the base program are much larger than this because it is necessary to provide for some of the most urgent needs of the Los Alamos Meson Physics Facility, the Oak Ridge National Laboratory and Massachusetts Institute of Technology Electron Linear Accelerators, and the large Tandem Accelerator at the Brookhaven National Laboratory. Taking these into account, we will have to reduce or terminate about \$2.9 million in university contracts (about 125 man-years of effort in about 60 contracts). These actions will result in the shutdown of several low energy accelerators in the universities. In addition we will have to reduce the operating effort in some of the

national laboratories. If our \$10.0 million appeal for restoration is approved, we would allocate \$5.65 million to these programs as follows: Medium Energy Physics, Low Energy Physics and Mathematics, \$3.05 million; Chemistry, \$1.8 million; Metallurgy, \$0.8 million. Such allocation would permit our base program to continue at just about the present level and the special programs mentioned above to be funded at a minimum level.


Similarly, we are requesting an increase of \$1.9 million for our Research Program in the life sciences. We have been allowed a level of \$39.5 million by the Bureau of the Budget for FY 1971, the same as the FY 1970 level. Our appeal is predicated on the need for an additional \$1.3 million to strengthen and increase research related to environmental problems and for an additional \$0.6 million to avoid a severe reduction in research conducted on the nation's university campuses.

All of the above figures indicate to me that even with an additional \$11.9 million added to our research budget, we will hardly be holding our own in a time when costs are increasing rapidly. In the event of our failure to obtain the \$11.9 million increment, the impact on the overall program - and particularly on our support of university research - will be, in a word, disastrous. I am sure that you are as profoundly concerned about this situation as I am, and I ask you to join me in making our appeal as effective as possible.

Cordially,

(Signed) Glenn T. Seaborg

Chairman

cc: Chairman (2) 
Commissioner Ramey
Commissioner Johnson
Commissioner Thompson
Commissioner Larson
GM (2)
AG:RD
Secretary (2)

Kriegsman stated he would brief him on it. I suggested that Flanigan advise the President to talk personally to Rickover as withholding nuclear submarine technology from any foreign government would receive very strong support in the Congress.

We agreed to meet again to continue these fruitful discussions, and it was left for Kriegsman and Rubin to arrange for a date whenever sufficient topics warranted.

I sent my biweekly report to the White House today (copy attached).

Lynne, Eric, Julie Rubin and I attended the Christmas Tree Lighting ceremony in the Ellipse area around 5 p.m. The program included, as usual, the Christmas Pageant of Peace. Edward R. Carr (President, Pageant of Peace) presided and there were remarks by Mayor Walter E. Washington, the Honorable Walter J. Hickel and others. There was a presentation to Mrs. Nixon by the Campfire Girls and the Boy Scouts. President Nixon presented his Christmas greeting to the world and then pushed the button that lighted the national Christmas Tree.

Wednesday, December 17, 1969 - D.C.

I received a call from Dr. Mason Willrich (Director, Center for the Study of Science, Technology and Public Policy, University of Virginia) who said that the Center has received a grant from the Ford Foundation to sponsor a conference next spring on the problem of civilian nuclear power and international security. He called me at the suggestion of Harry Smyth. He said he hoped to get me, Smyth, Rhode Island Senator John Pastore and New Jersey Senator Clifford Case, among possibly others. I said it was impossible for me to do it on such a short time-scale; I am booked already far beyond that; I said I would suspect that the others might be in the same situation. He will check, however, to see whether he could get a group together; if not, he will try for later. He asked whether someone else on the Commission would be able to do it; I said that off-hand I didn't know. I did mention Tape's name.

I had lunch in the Commission dining room with Rubin, Schneider and Davids.

At 2 p.m. I was interviewed by Lloyd Schwartz, Chief of the Washington Bureau of Fairchild Publications. Guy Delort took photos during the interview. The questions concerned my recollections of December 2, 1942, my reaction to the success of the Fermi experiment, how far have we come in the uses of the peaceful atom, the supply of uranium, the potential of radioisotopes in medicine, agriculture and food processing, thermal effects, the sharing of nuclear information internationally, etc.

Mike May called me regarding the excavation program. Kelly told him it might be in serious trouble. I said that STURTEVANT is still tied up in the Under Secretaries Committee; also, because of the budget stringencies for FY 1971, it may end up simply as a line item. May said there is one unique development in the device; and, quite apart from any specific application, it would be helpful to have the device developed to a useful size and tested. Regarding the Gofman and Tamplin matter, he said that Carl Walske has made two suggestions: (1) that someone make a public

AEC BIWEEKLY STATUS REPORT FOR DECEMBER 16, 1969

UNCL. BY DOE
NOV 86

1. The Enrico Fermi Award was presented to Walter H. Zinn by Chairman Seaborg, who read a congratulatory message from President Nixon as part of his remarks. The ceremony took place on December 2 in San Francisco before an audience of more than 1000 people.
2. Negotiations between the Governments of Britain, Netherlands, and West Germany for a gas centrifuge agreement have reached the point where ratification by the three Governments and approval by Euratom could occur by early 1970. The agreement would provide for building and operating two gas centrifuge plants (for the production of enriched uranium) through two tri-national companies owned by the Governments and private firms in participating countries.
3. In a decision related to participation by United States industry in the development of nuclear power in Europe, the French Government rejected a proposal by Westinghouse to buy a controlling interest in a major French electrical equipment manufacturing firm (the Jeumont-Schneider Corporation), with President Pompidou stating a preference for a French-centered industry. Westinghouse indicated it will look elsewhere for European partners in heavy electrical equipment manufacturing, especially in Britain and West Germany. In France there is some sentiment for the formation of a "national group" composed of all major French electrical equipment companies that could have ties with foreign countries, especially West Germany, on nuclear power reactors. It is expected that the French Government will soon invite bids on large nuclear power plants based on light-water, enriched uranium technology, which was developed in the United States.
4. AEC's "This Atomic World" lecture-demonstration program for secondary schools received special recognition when the AEC contractor that operates the program, Oak Ridge Associated Universities, was given the 1969 award by the Atomic Industrial Forum for the most outstanding accomplishment in informing the public about nuclear science and technology. "This Atomic World" has been presented to 19 million students and teachers in 19 thousand high schools in 50 states.
5. The Chairman of the Joint Committee on Atomic Energy, Representative Holifield, recently spoke on the importance of cooperation between AEC, the Joint Committee, and the nuclear industry for (1) developing

fast breeder power reactors, (2) solving the problem of power plant siting, and (3) determining the future of the gaseous diffusion plants. His speech, made on December 3 to the Atomic Industrial Forum Annual Conference, was printed in the Congressional Record, December 8, 1969, H11931-33. Representative Holifield later denied a press report that in this speech he gave the nuclear industry a choice of joining the Joint Committee in fighting the sale of the diffusion plants or not expecting help from the Committee in support of the breeder reactor.

6. AEC's report on "The Nuclear Industry - 1969" has been released. This annual publication is a detailed source of information about peaceful nuclear developments in commerce and industry and AEC's contribution to strengthening free competition in private enterprise.
7. AEC is raising the price of heavy water because of the increased costs of manpower, materials, and electricity. Heavy water is produced in AEC's Savannah River Plant in South Carolina and sold and leased for use in certain types of nuclear reactors. The new price is \$30 per pound, and the lease price will be based on this figure. The price had been \$28.50 since May 1968.
8. The seventh meeting of the Inter-American Nuclear Energy Commission (IANEC) was held during November in Washington, with 13 Western Hemisphere countries, including the United States, represented. IANEC is a technical commission within the Organization of American States (OAS) and provides consultation and facilities for cooperation in the peaceful uses of atomic energy. IANEC approved resolutions of the following subjects: (1) IANEC participation in the OAS Regional Program of Scientific and Technological Development, (2) establishment of nuclear energy projects of short and long range economic significance, and (3) support for relevant nuclear development programs being undertaken by other international organizations.

statement that their statements are simply the expression of personal opinion and are not backed with evaluation; (2) there are disagreements within the scientific community as to whether their statements are right or wrong. Walske has therefore suggested convoking a technical working group meeting (of about a week's duration, maybe in January) to focus on two questions (a) what evidence do we have to extrapolate radiation to low dose rates; and (b) as stated by Gofman, are all forms of cancer caused by radiation with doubling doses about the same as leukemia. The working group would consist of about a dozen experts, including such people as Bob Evans, John Totter, Gofman, and maybe Tamplin. The sponsorship of the meeting could be any way we wished--AEC, or Livermore, etc., and could be held anywhere. I said I would check and let him know.

After discussing this at the Executive Session, I called him later in the afternoon. I told him that the consensus is that some kind of working group meeting of the type he suggested would be worthwhile. We are not entirely sure how to sponsor it or where it might best be held. Larson and Totter will be the ones to follow this, and they will be in touch with May. May said that Mel Calvin is at Livermore today, and he mentioned this suggestion to Calvin, who said that he himself had arrived at the conclusion of the desirability of such a meeting. Calvin hopes to see me sometime in January and will talk to me about it.

At 3:15 p.m. I met in Executive Session with Commissioners Ramey, Johnson, Larson and Thompson, Bob Hollingsworth and Julie Rubin for a policy discussion. Commissioner Johnson provided the attached outline of topics he would like considered and the discussion essentially followed these topics.

The first topic related to policy issues regarding the HTGR. The requirement for information early in 1970 for realistic evaluation of a large HTGR power reactor was recognized. (January 26 was suggested for the meeting with Gulf General Atomic and March 26 for the meeting with the Eugene Water and Electric Board). With regard to the Commission charges for highly enriched uranium, it was generally agreed the present practice of averaging costs over all levels of enrichment would be the preferred Commission position. The desirability of having this cost averaging practice accepted as a long-range policy commitment was reviewed. The possibility of an adverse decision by the White House or the JCAE was noted if the question were raised; the consensus seemed to be not to force the issue at this time. Larson requested data on the actual cost experience for highly enriched uranium versus the typical low enriched product for water reactors and Hollingsworth agreed to develop this information. I summarized the picture by stating the entire industry has been established based on AEC's practice of averaging costs for all levels of enrichment; with the potential future influence of the centrifuge to consider, the desired course of action appears to be to continue to average costs.

On buyback of U-233, it was noted that data are being developed to support the price to be included in extension of the buyback period for another five years.

A similar notation was made of the plans for developing appropriate reprocessing charges based on a current review of the conceptual plant, which is the present basis for this charge.

Policy Approach for HTGR

A. Issues

1. Enrichment charge
2. Duration of U-233 buyback offer
3. Reprocessing charges based upon conceptual plant
4. Base R&D program
5. Possibility of accommodating points 1-4 through a cooperative program on first plant (budget problem).

B. Timing

1. EWEB to solicit proposals before January 1, due March 16, 1970.
2. GGA to meet with Commission January 26, 1970.
3. If GGA to overcome barriers to market entry and become successful competitor, 1970 is crucial year.

Diffusion Plant - Interim Operation

- a) staff paper prepared on organization, personnel and management.
- b) Determination of price for %W (Who doing this? Criteria)
- c) Clearance of JCAE
- d) Legislative approach

Centrifuge Policy

To consider bringing industry back into R&D:

- At industry expense
- On classified basis
- With royalty for AEC technology
- Limited number of participants
- Prohibition on foreign dissemination

Need to give industry assurance as to centrifuge technology, or diffusion plants likely to sell at give away if saleable at all.

Complications of foregoing on cooperative initiative with Europeans of diffusion.

Policy on Stockpile Sale and Removal of Foreign Import Restrictions

- White House road block
- How to remove
- See Flanigan? Mayo?
- Letter to Mayo in preparation by staff

Cooperation with foreign countries on enrichment

- Will come up in NSC. (Richardson, Packard, Seaborg, Kissinger, et. al.) - early in January.
- Who will attend?

Johnson suggested that the Commission consider what the Gulf officials could be told, during our meeting on January 26, about AEC support for a base R&D program and any possibility for a cooperative effort on the first large HTGR power plant. The recent experience of requesting \$6 million for R&D support in FY 1971 and ending with a \$2 million markup by the BOB was noted, and it was agreed that Gulf could only be offered assurance of AEC's intent to support a base R&D program to the extent funds are available. With regard to a cooperative effort on the first plant, there was general support for the idea but very little basis for encouragement that the BOB would go along with this approach. Commissioner Ramey surfaced a third round type project at a level of \$15 million as something worth considering. BOB agreement was mentioned as a possibility if no budget dollars were involved such as by a loan of fuel. Again it was agreed that Gulf could only be informed of AEC's intent to explore the matter.

The second topic related to the diffusion plants. I reported on a conversation with Peter Flanigan in which Flanigan was informed of the various staffing plans for the separate directorate considered by the Commission. He was also informed that the AEC favors, and would proceed to implement unless advised to the contrary by the White House, a minimum separate staff approach under a high level director reporting to the General Manager. Johnson and Hollingsworth reported on the preparation of a staff paper for consideration by the Commission that would include consideration of organization, financing, pricing, and other key factors. This was followed by a request by Johnson and a discussion regarding the price that could be charged for separative work within the present criteria. Hollingsworth suggested we not fix on a firm position regarding price pending informal review of the information developed by the White House and the JCAE. Hollingsworth will prepare information for review by the Commission by late January 1970. There was considerable discussion about the basis within the present criteria for, and acceptability of, a price increase and the reaction, if any, by the White House, the JCAE, the industry, including utilities and manufacturers, and the Commission to the level of increase. Larson expressed a view that a \$1.50 price increase is reasonable and probably acceptable to all concerned. Ramey voiced reservations about the need and acceptability for any price increase at this time.

The third topic related to centrifuge technology. Johnson raised the question of whether it is appropriate at this time to again bring U.S. industry into development of the gas centrifuge. He offered as one possibility a licensing arrangement with AEC controlling security and possibly the direction of R&D by each participant's being based on the level of private funds each company is willing to commit to this work. The importance of private companies' being fully aware of the present status and future potential of gas centrifuge technology was emphasized in any consideration for new enriching capacity or sale of the present gaseous diffusion plants. The security aspects of private industry participation in developing this technology were reviewed, and Ramey expressed a view that even with Europe and other countries increasing their effort in this area, we might buy another five years' protection by confining U.S. development to government activities. It was generally agreed the U.S. rate of development and progress for the centrifuge under an exclusive government operation should be maintained and increased if possible. Johnson suggested the BOB be informed of the importance of

developing timely information about the potential of the gas centrifuge and the fact that sale of our present diffusion plants would be difficult in the next five-year period until this information is developed. Thompson suggested we may wish to arrange for an exchange of information with European groups and emphasized that they are fully capable of achieving the same level of progress that we have achieved. It was suggested the European organizations may even be ahead of the U.S. in developing reliability data while we have been concentrating on improving the efficiency of single machines.

Larson and I suggested that Johnson plan on reviewing this matter again at a future meeting and present plans in a little more detail of possible ways U.S. industry could again be used in developing this technology. It was agreed the other Commissioners should also be prepared to offer suggested plans that would accomplish this objective. Larson observed that the security issue will be reduced significantly when large quantities of plutonium are available throughout the world from power reactors.

At this point Thompson informed the Commission of recent discussions involving the patent on the U.K. braking device. The possibility of an exchange of patents with the U.K. by offering the U.S. end cap for the U.K. braking device was mentioned. U.S. need for the braking device or opportunity to use it is not clear unless there is a change in the design of the U.S. unit. Thompson will pursue this matter.

The next topic discussed was stockpile sale and removal of foreign import restrictions on uranium. Johnson noted there is a roadblock on consideration of this matter at the Dave Freeman and Tom Moore level at the White House. He suggested a need for consideration of this policy at a higher level, as broader issues involving oil imports, a pending agreement with Canada on all energy sources, and the economic impact on the U.S. uranium industry have to be considered. Hollingsworth reported on a meeting attended by George Quinn yesterday (December 16) in which Mr. Spears of BOB and Mr. Freeman of OST seemed to be supporting use of low cost foreign uranium while it is available and protecting U.S. reserves by deferring their mining. Johnson reviewed the problem of holding U.S. sales at a constant level and allocating growth as the nuclear power industry expands to using U.S. stockpile material and increasing foreign imports. The possibility of my raising this issue at the Peter Flanigan level was suggested and the problem of the consequences of obtaining an unfavorable answer was discussed. It was left that I would raise the question with Flanigan when the circumstances seem appropriate. Hollingsworth suggested we observe the consideration of this matter by those at the Freeman, Moore and Spears level and be prepared to take steps if a policy appears to be developing that is not in the overall best interest of the AEC or the U.S. uranium industry.

There was a brief reference to the current status of cooperation with foreign countries in enrichment technology. Johnson reported the next step will be review of this subject by the NSC and at my request agreed to try and defer any NSC meeting on this matter in January when both Ramey and I will be out of the country.

It was agreed that another policy discussion period should be scheduled for the Commission in early February.

In a follow-on discussion not related to the above policy issues, I noted a call from Mike May in which he suggested a meeting with Drs. Gofman and Tamplin and other experts to review the present controversy about appropriate control levels for discharge of radioactive materials to the environment. Thompson reviewed his discussion with Carl Walske in which a similar discussion has been suggested by Carl Walske following a talk with Gofman and Tamplin. There was general agreement that a meeting or some review with Gofman and Tamplin is desired. The possibility of the Commission, Carl Walske, the AEC Division of Biology and Medicine, and FRC and possible other groups initiating the meeting was discussed, and it was decided that the best group would be the AEC Advisory Committee for Biology and Medicine. I agreed to inform Mike May of this plan and will then inform Hollingsworth to proceed with an inquiry through the Advisory Committee for Biology and Medicine to obtain their agreement and cooperation.

Ramey reported on a call from Merrill Eisenbud about Tamplin's plan to present a paper in Boston at the end of this month in which he will request a moratorium on all nuclear power plants because of questions about reactor safety. Thompson questioned the relevance of Tamplin's position on reactor safety and his experience and past position involving discharge of radioactive materials from nuclear power plants. Johnson repeated statements from an earlier Information Meeting in which it was suggested that AEC laboratory employees publish their views in scientific journals or be required to clear them with the responsible AEC division. Larson and I voiced grave concern about any attempt to censor laboratory employees and particularly in this situation where Gofman is a full professor at the University of California. It was agreed that the best solution to the problem is to have individuals in such matters criticized by their peers rather than restricted by the supporting agency.

On a separate but related subject, Larson reported news yet to be confirmed that the ICRP has issued new standards on uranium mining that reduce activity levels in air by a factor of five and in urine by a factor of seven. No further details were available.

I reported on receipt from K. C. Morgan of correspondence in his capacity as President of the International Radiation Protection Association in which they are asking to co-sponsor the proposed IAEA conference on the environment. Copies of the correspondence are being circulated to the other Commissioners and Mr. Hollingsworth.

Thursday, December 18, 1969 - D.C.

At 11 a.m. Commissioners Larson, Thompson, Ramey (later) and I, Bob Hollingsworth, Harold Price, George Kavanagh, Howard Brown, Spof English, Milt Shaw, John Erlewine, Julie Rubin and others attended a briefing by Constantinos A. Doxiadis (Doxiadis Associates), Edward George (President, Detroit Edison Company) and Andre Simeon (Washington Representative, Doxiadis Associates). Doxiadis and Simeon described the large regional planning effort they have been making for the Detroit area, and George and Simeon described the site they are planning for nuclear power reactors near the present Enrico Fermi Reactor site near Detroit. This site includes wildlife preserves, lakes, an information center and walking areas for the public, etc. All in all, it is a very impressive effort.

I had lunch in the Commission dining room with Julie Rubin, Stan Schneider, Howard Brown and Myron Kratzer. We discussed such things as the itinerary for my forthcoming African trip, my planned speech before the Japanese AIF next March, the replacement of Smyth as U.S. Representative to the IAEA, my trip report on my visits to several European countries in September and October, the possible adverse impact of the RULISON trial opening in Denver next month, etc.

At 2 p.m. the other Commissioners and I, Bob Hollingsworth, Harold Price, Ernie Tremmel, Joe Hennessey, Milt Shaw, Jim Hill and others attended a briefing by W. B. McGuire (President), B. B. Parker (Executive Vice President), W. S. Lee (Vice President, Engineering), C. Horn (Vice President, General Counsel) and A. C. Thies (Vice President, Production) of the Duke Power Company. They described plans for the nuclear power station at the Oconee site. Horn emphasized the problems attendant with sharing their power with small municipalities if they should ever be required to do that.

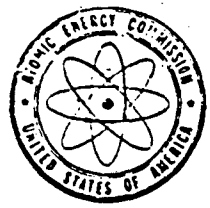
At 4:20 p.m. I presided over Information Meeting 983 (notes attached). We discussed the question of which Commission employees it might be proper to make available to testify in the case of the Northern States Power Company against the State of Minnesota, challenging the validity of the Minnesota Pollution Control Agency's permit for the Monticello plant. We decided that it would be proper to have Ed Case of the Office of Regulation, someone from the General Manager's operation, someone from the General Counsel's office and some former ACRS members do this.

Walter Sullivan of the New York Times called. He said he is writing something about the prospects for the 1970's and wants to mention something in connection with atomic energy and the possibility that fusion will be in sight before the end of the 70's; also that a new generation of fast breeder reactors will bring down power costs. He asked if those were reasonable statements. I said that, in the case of the breeders, we will have the first demonstration plant (300-500 MW range) in the 70's; it will be built cooperatively by industry and the AEC. We will be in the 1980's before a large, 1000 MW economic, low reproduction type breeder is in operation. I said we don't see anything on fusion in the 70's. We still need to get to the point where we were with fission on December 2, 1942. We need to get the proper combination of high temperature and containment before we demonstrate fusion. We ought to reach that in the 70's; then we will go on from there, which will take another few decades. I suggested that he read the speech on fission and fusion that I gave in San Francisco recently.

At 6 p.m. I met with Jim Ramey and Dr. Chung-Ming Wong (Director, Office of Saline Water, Department of the Interior) in Ramey's office. We discussed cooperation between the Office of Saline Water and the Atomic Energy Commission in the area of nuclear power plants for desalting.

I received from Joseph Hennessey a memorandum (copy without enclosures attached) containing additional information concerning actual establishment of the \$26 price charge for enrichment services (requested at Information Meeting 976 on December 8).

I received a letter from Senator Edward Kennedy (copy attached) requesting information regarding documents we have made available under the Freedom of Information Act for use in a possible revision of the Act.



UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

ENCL. BY DOE
NOV 88

COPY NO. 3
December 18, 1969

INFORMATION MEETING 983

4:20 p.m., Thursday, December 18, 1969, Chairman's Conference Room, D. C.

1. Chairman's Oral Report re SNM
2. Commissioners' Dinner with JCAE early 1970
To be scheduled. (Rubin-SECY)
3. AEC 1083/146 - Proposed U.S. Offer to Host IAEA Symposium in 1970
(See also AEC 1083/142 and AEC 1083/144)

Approved. (AGMA-AGMIA)

4. AEC 484/14 - Proposed Letter to JCAE re Improvement of Operations
of AEC Facilities

Noted.

5. AEC 1044/27 - Visit of Spouses to Nevada Test Site

Noted. (AGMMA)

6. Appeal to the President on FY 1971 Budget

Scheduled for Tuesday, p.m., December 23, 1969, or Wednesday, a.m.,
December 24, 1969. (OC)

7. Commissioner Johnson and GM's December 16, 1969, Meeting with Mr. Fawcett, PNL

Noted.

8. Status of Rulison Litigation (See AEC 811/283)

Staff will check with the Department of Justice. (GC)

W. B. McCool
Secretary

4:55 p. m.

PRESENT:

COMMISSIONERS:

Chairman Seaborg
Commissioner Ramey
Commissioner Johnson
Commissioner Thompson
Commissioner Larson

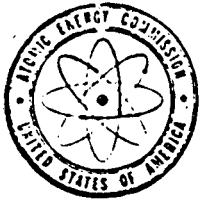
STAFF:

Mr. Hollingsworth
Mr. Bloch
Mr. Brown
Mr. Hennessey
Mr. Rubin
Mr. Kull
Mr. McCool
Mr. Friedman*
Mr. Slawson*

DISTRIBUTION:

Commissioners
General Manager
General Counsel
Secretary

*Attendance by Topic (s)



UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

ENCL. BY DOE
NOV 66

DEC 13 1969

Chairman Seaborg
Commissioner Ramey
Commissioner Johnson
Commissioner Thompson
Commissioner Larson

THRU: General Manager *RHP/12/18/69*

ESTABLISHMENT OF \$26 SEPARATIVE WORK CHARGE

At Information Meeting 976 on December 8, in considering my Memorandum of Law concerning the requirement for submission to the JCAE of certain types of revisions in the uranium enrichment criteria, the Commission requested additional information concerning actual establishment of the \$26 price charge for enrichment services.

As pointed out in my memorandum the \$26 charge had not yet been established at the time of the JCAE hearings on the criteria for uranium enrichment. Consequently, there was no discussion in Committee hearings of the actual charge other than a recognition that the charge itself was not part of the criteria and could be established and revised without submission to the JCAE of the revised charge.

Following the close of the hearings the Commission proceeded to determine the actual charge on the basis of the criteria that were published following the JCAE review. No further Congressional hearings were held on the subject. Our search of the records discloses the following with respect to notice to the Joint Committee and action taken by the JCAE upon receipt of notice of the establishment of the charge.

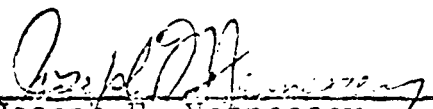
By letter dated September 19, 1967 (Tab A) Chairman Seaborg advised Chairman Pastore of the \$26 charge for separative work and the general basis on which it was established. On the same day Chairman Pastore requested the Comptroller General (Tab B) to review the charge and advise whether it was consistent with the Criteria and whether it provided any subsidy to the foreign or domestic nuclear industry.

On September 20, 1967, Mr. Trosten telephoned Mr. Abbadessa (Tab C) and indicated that the \$26 charge and proposed announcement regarding it presented no problems to the JCAE.

On September 25, 1967, The Comptroller General (Tab D) responded to Chairman Pastore's letter indicating that the \$26 charge was consistent with the Criteria and that he did not see a basis for asserting that a subsidy is being provided to the domestic or foreign nuclear industries, or any portion thereof.

Encl.

- Tab (A) as noted above
- Tab (B) as noted above
- Tab (C) as noted above
- Tab (D) as noted above



Joseph F. Hennessey
General Counsel

United States Senate

WASHINGTON, D.C. 20510

December 12, 1969

ENCL. BY DOE
NOV 86

Chairman Glenn T. Seaborg
Atomic Energy Commission
Washington, D. C. 20545

Dear Mr. Seaborg:

As you know, the Freedom of Information Act has been in effect now since July 1967. The Act established a principle, as well as a mandate, for openness in government.

In May 1968, the Subcommittee on Administrative Practice and Procedure put together a Ten Months Review of the Act, containing agency regulations, commentaries, and cases brought under the Act. We now plan to publish an updated version of our Review. In compiling this publication, we would like you to furnish the following:

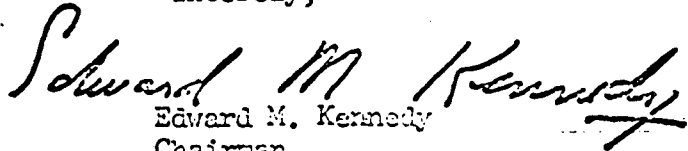
- 1) A list of all information, records, or other documents which your agency has made available as a result of the Freedom of Information Act.
- 2) A list of all classes of records or documents made generally available to the public on the agency's own initiative since July 1967 which were theretofore considered non-public information.
- 3) A list of all information, records, or other documents which your agency has not made available since enactment of the Act, where the Act was cited as the statutory reason for withholding the information, records, or other documents. Please cite the exemption invoked in each case.
- 4) Two copies of any implementation regulations or memoranda promulgated by or within your agency pursuant to the Freedom of Information Act.
- 5) Two copies of any agency opinions in which this Act is cited.

If your agency was included in the Ten Month Review your answers to 1, 3, and 5 may be restricted to the period since May 1968.

A number of agency regulations on their face, and administrative action in response to requests under the Act, make it clear that continuing attention to this area is necessary. Revision of some regulations under the Act may be in order, or amendment of the basic Act may even be necessary. Any comments you have on the operation of the Act would be welcome.

I will appreciate your notifying the Subcommittee of changes in your regulations after we have received them, so that our compilation will be completely up-to-date. Thank you for your assistance - we would like to have your response and materials before January 1, 1970.

Sincerely,



Edward M. Kennedy
Chairman

Subcommittee on Administrative
Practice and Procedure

CROSS REFERENCE SHEET

Document # 911862

TITLE OF DOCUMENT LETTER DATED 10/18/69, one page
(incomplete)

This document requires further classification review and has been removed from this folder.

Jeffrey B. Adair
Name

September 2, 1986
Date

121801

I sent a letter to Robert P. Mayo (copy attached) giving our views and recommendations on S. 3169, "to amend the Atomic Energy Act of 1954, as amended, and for other purposes." This extends for five years authority for licensing of atomic energy patents, increases criminal penalties for unauthorized diversion of special nuclear material, deletes authority to impose the death penalty, confers on the Commission authority to levy certain monetary penalties, etc.

Bill and Lynne went to the Dulles Airport to meet Pete and Steve who came in on the late afternoon plane from San Francisco.

Pete, Steve, Lynne and Bill joined us for dinner, and after dinner the Christmas tree was set up and decorated.

Friday, December 19, 1969 - Germantown and Bethesda offices

At 9:55 a.m. I presided over Information Meeting 984 (notes attached). We discussed the proposed reply from DOD and AEC to the State Department concerning a draft letter to the President regarding the Dutch submarine question (copy attached). We discussed the RULISON litigation and the witnesses that may be called by the plaintiffs and by the AEC. We also discussed the status of the U.K.-Netherlands-West Germany Tripartite Agreement on the Gas Centrifuge (copy of Kratzer's memorandum attached).

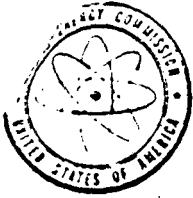
In an executive adjudicatory session concerning the granting of a provisional construction permit to Consolidated Edison Company of New York (Indian Point Nuclear Generating Unit 3) we decided not to require all of the iodine removal measures advocated by some members of the hearing board. There was a briefing by Howard Brown on the progress that is being made in the Commission's program of responding effectively to the criticism of the environmental effects of nuclear power. (Present at the briefing were: the Commissioners, Bob Hollingsworth, Ed Bloch, Howard Brown, Joseph Hennessey, Woodford McCool, Julie Rubin, Stan Schneider, Chris Henderson, John Crawford, Algie Wells, Martin Biles, W. W. Burr, Spofford English, and John Kelly.)

I had lunch with Ed Brunenkant, Commissioner Larson, Julie Rubin, and Stan Schneider to discuss possible books that might be prepared for use as U.S. presentation volumes at the forthcoming Geneva Conference on the Peaceful Uses of Atomic Energy (1971).

At 2 p.m. I attended and spoke at the annual AERWA Christmas Party presided over by Virginia Lott. She first introduced Lee Sellers, who spoke about "Operation Needy" and the work of AERWA and gave some humorous remarks.

I then went to the Bethesda Office and attended the AERWA Christmas party there. Mr. Sullivan was master of ceremonies. He introduced Hal Price, who, in turn, introduced me. I spoke briefly, introducing the other Commissioners and the General Manager, and including a few humorous words of greeting.

In the evening we had our annual Christmas party at home for the Chairman's, Commissioner's and General Manager's key staff, including wives. A total of 67 attended. Steve drove to Dulles Airport to meet



UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

ENCL. BY DOE
NOV 86

DEC 18 1969

Honorable Robert P. Mayo
Director
Bureau of the Budget

Dear Mr. Mayo:

We are pleased to respond to your memorandum of December 16, 1969, asking for our views and recommendations on S. 3169, an enrolled bill "[t]o amend the Atomic Energy Act of 1954, as amended, and for other purposes."

The bill is an "omnibus" bill incorporating in substance three proposals submitted by the Commission for action by the Congress.

The first, Section 1, would amend Section 153h. of the Atomic Energy Act by extending for an additional five years the Commission's authority to require the licensing of certain atomic energy patents. The amendment would extend the authority to September 1, 1974. It is identical with the Commission's proposal on this subject.

The second of the Commission's proposals is incorporated in Sections 2 and 3 of the bill. Section 2 would amend Section 222 of the Act to increase the maximum criminal penalties for unauthorized diversion of special nuclear material and related offenses to imprisonment for 10 years and a fine of \$10,000, when the offense is committed without intent to injure the United States or secure an advantage to any foreign nation. The maximum penalty currently provided for such a violation is imprisonment for five years and a fine of \$10,000.

Section 3 of the bill would amend Sections 222, 224, 225, and 226 of the Act by deleting authority to impose the death penalty, and by deleting the requirement for a recommendation by the jury for imposition of life imprisonment before such a penalty could be imposed. As a result of a recent Supreme Court decision, that requirement would very likely be found unconstitutional in its present form. Section 3 also would amend these sections of the Act to eliminate any question as to the authority of the courts to impose a prison term for a fixed term of years less than life imprisonment. The offenses for which Section 3

would provide revised penalties are those committed with the intent to injure the United States or to secure an advantage to a foreign nation, imposed for diversion of special nuclear material and other offenses (Section 222), unauthorized communication of Restricted Data (Section 224a.), receipt of Restricted Data (Section 225), and tampering with Restricted Data (Section 226).

Sections 2 and 3 of the enrolled bill differ in a number of details from the proposal submitted by the Commission to the Congress, but the differences are technical and do not affect the substance, which is the same as that proposed by the Commission.

The third Commission proposal appears in Sections 4, 5 and 6 of the bill. Section 4 would add a new Section 234 to the Act to confer upon the Commission statutory authority to levy civil monetary penalties on persons who violate certain licensing provisions of the Act, or violate any rule, regulation, order or license issued thereunder. Section 5 of the bill, essentially a technical amendment, would amend Section 221c. of the Act to make it clear that "action", as referred to in that section, does not include administrative action initiated by the Commission, including action under the new Section 234 being added by Section 4 of the bill. Section 6 of the bill, also a technical amendment, would amend Section 223 of the Act by adding the word "criminal" before the word "penalty", in order to make it clear that the penalties referred to in the latter section (covering criminal violations of the Act for which no penalty is specifically provided) do not include civil monetary penalties imposed under the new Section 234.

The civil monetary penalty provisions of S. 3169 serve the same purpose as the proposals which the Commission submitted to the Congress. They differ in the amount of penalty which may be imposed in certain cases, and in the applicability of the section to persons subject to licensing, as well as those holding a license. Although the bill differs in detail from the Commission proposal, we have no objection to the civil monetary penalty provisions of S. 3169.

Section 7 of the bill is a "saving" provision, and provides that the amendments in Sections 2 and 3 of the bill apply only to offenses committed on or after the date of enactment of the bill; and further that

Honorable Robert P. Mayo

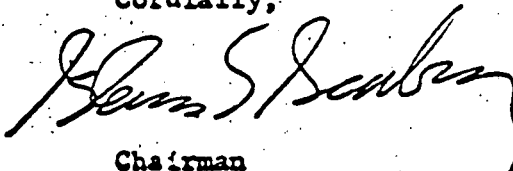
- 3 -

the penalties authorized under Sections 222, 224, 225, and 226 of the present law shall continue to apply to offenses committed before the date of enactment of the bill. The Commission's criminal penalty proposals did not include a section of this type. Since it is of a technical nature, and merely declares what we understand to be the law even without such a provision, we have no objection to its inclusion in the Act.

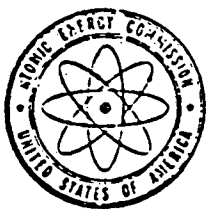
The patent provision of Section 1 of the bill would have a budgetary effect only to the extent that the Commission exercises its authority under Section 153 of the Act. To the extent that it does so, the budgetary impact would be minimal. The criminal penalty provisions would have no budgetary effect. The civil penalty provisions would have no predictable budgetary effect, but any civil penalties assessed and collected would increase the total net Federal revenue to the extent that they were not offset by any expenses of collection. Enactment of S. 3169 would not result in any additional man-years of employment during the next five years.

The Atomic Energy Commission believes that each of the provisions of S. 3169 represents a desirable clarifying or corrective amendment of the Atomic Energy Act and will help the Commission to carry out a rapidly evolving program. We believe that the changes in our proposals which the Congress included in S. 3169 do not materially change the Commission's proposals. We accordingly recommend that the President sign the enrolled bill.

Cordially,

A handwritten signature in cursive script, appearing to read "Paul S. Seaborg".

Chairman



UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

DECL. BY DOE
NOV 86

COPY NO. 14
December 19, 1969

INFORMATION MEETING 984

9:55 a. m., Friday, December 19, 1969, Room A-458, Germantown

1. Commissioners' Dinner Meeting with the Joint Committee on Atomic Energy, February 4 or February 5, 1970
To be scheduled. (Rubin-SECY)
2. AEC 152/254 - Proposed Comments to JCAE on Energy Research and Development
Approved. (Fremling)
3. Agenda for the Weeks of December 22, 29 and January 5 and 12
Approved. (SECY)
4. Meeting Schedule Guidelines (See Secretary's December 18 Memorandum)
Approved. (SECY)
5. Commissioners' Tentative Calendar Commitments, January 1970 through March 1970 (See Secretary's December 18 Memorandum)
Noted with a request. (SECY)
6. Commissioners' Meeting with Westinghouse Company Officials, 2:00 p. m., February 17, 1970
Scheduled. (SECY)

7. AEC 1323/1 - Electric Research Council (ERC); and,
AEC 1323 - Electric Research Council: Proposed AEC Participation

Staff will discuss with EEI and Department of Interior, and report back to the Commission. (AGMO)
8. AEC 901/503 - USSR Nationals: Proposed Participation at LRL, Berkeley

Approved. (AGMIA)
9. Draft Letter to Under Secretary Richardson re Cooperation with the Netherlands

Approved. (AGMIA)
10. Status of UK-Netherlands-West Germany Tripartite Agreement on Gas Centrifuge

Noted with a request. (AGMIA)
11. AEC 1088/147 - Symposium on Progress in Safeguards Techniques

Noted. (TI)
12. AEC 610/197 - Foreign Agent Registration of Belgian Syndicate Interested in Gaseous Diffusion Plant in the Congo

Noted. (GC)
13. AEC 811/283 - Rulison Litigation of Pre-Trial Proceedings

Staff will proceed as discussed. Commissioner Thompson will review the proposed next phase of Rulison operations. (GC-PNE-Rosen)
14. Informal Symposium to Discuss Statements re Radiation Standards

Commissioner Larson will telephone Dr. Michael May today. (Griffin-SECY)

15. Status of AEC Organization for Environmental Matters

The staff briefed the Commissioners on progress to date and plans for the future. (AGM-SAGM/EA-SECY)

W. B. McCool
Secretary

12:15 p. m.

PRESENT:

COMMISSIONERS:

Chairman Seaborg
Commissioner Ramey
Commissioner Johnson
Commissioner Thompson
Commissioner Larson

STAFF:

Mr. Hollingsworth
Mr. Bloch
Mr. Brown
Mr. Rubin
Mr. Hennessey
Mr. Ryan
Mr. McCool
Mr. Shaw*
Mr. Erlewine*
Mr. Kratzer*
Mr. Kelly*
Mr. English*
Mr. Burr*
Mr. Crawford*
Mr. Barr*
Mr. Catlin*
Mr. Rowden*

DISTRIBUTION:

Commissioners
General Manager
General Counsel
Secretary

*Attendance by Topic (s)

CROSS REFERENCE SHEET

Document # 911864

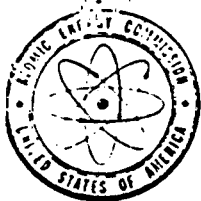
TITLE OF DOCUMENT Memo for the President. 3 pages
Draft, no date, re Dutch interest

This document requires further classification review and has been removed from this folder.

Jeffrey B. Kala
Name

September 2, 1986
Date

689
21801-108173



UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

DEC 19 1959

ENCL. BY DOE
NOV 66

AS 12/20/69

Chairman Seaborg
Commissioner Ramey
Commissioner Johnson
Commissioner Thompson
Commissioner Larson

[Signature]
THRU: General Manager

TRIPARTITE ENRICHING ARRANGEMENT

Late yesterday afternoon representatives of the U.K., German, and Dutch embassies delivered to the State Department the enclosed diplomatic note, public announcement, and interim agreement relating to the establishment of the tripartite enriching organization of the three countries. The enclosed public announcement was to have been released in Europe today at 11:00 a.m. European time. The embassy representatives requested that the other two documents continue to be treated as confidential.

The representatives stated that agreement by their three governments on the tripartite enriching enterprise has now been reached and the agreement pertaining to this will be submitted to Euratom for the required review by the European Commission on January 29. The Commission has 30 days in which to review this document and its formal signature is scheduled for mid-February. The enclosed interim agreement is a security arrangement to provide security protection on any information communicated between the three governments before the formal agreement comes into effect. The interim agreement will be effective immediately upon its signature and since, unlike the definitive agreement, it will not require ratification.

The enclosed documents contain essentially no new information concerning the enrichment enterprise and completion of the negotiations at approximately this time had already been anticipated.

[Signature]

Myron B. Kratzer, Assistant General
Manager for International Activities

Enclosures:
As stated

NOT DECLASSIFIABLE

OFFICE DIARY
GLENN T. SEABORG
Chr USAEC, 1961-72
FOLDER-PAGE/08/80-108/81

DOCUMENT TITLE Diplomatic note No. 303 (12-18-69)

Regarding establishment of the Tripartite

Organization

09/18/66

This document has been determined to be NOT DECLASSIFIABLE and has been removed from this folder.

C. Seeger
Name

11-30-87
Date

Reference letter DOS, Burke to DOE, OC
Gilbert dated 8-19-87

CROSS REFERENCE SHEET

Document # 91863

TITLE OF DOCUMENT

Memo for the President, 12/10/69

This document requires further classification review and has been removed from this folder.

Name

Jeffrey B. Kohn

Date

September 2, 1986

108172-108175

(To be released in Bonn, The Hague and London not before 1100 hours local time on 19 December, 1969)

ANNEX A

TRIPARTITE STATEMENT

The Governments of the Federal Republic of Germany, of the Kingdom of The Netherlands, and of the United Kingdom of Great Britain and Northern Ireland, have approved the terms of an agreement for collaboration in the development and exploitation of the gas centrifuge process for enriching uranium. The Netherlands and German Governments will shortly communicate the draft of the agreement to the European Commission in accordance with Article 103 of the Euratom Treaty. After completion of the procedures laid down in that Article, it is the intention of the three Governments to sign the agreement.

2. Research and development work on the gas centrifuge process has been carried out independently in the three countries for a number of years, and each has reached the point where industrial exploitation can be undertaken. The three Governments are of the view that the rapid growth in the demand for enriched uranium for nuclear power stations makes it essential to establish in Western Europe a substantial and growing capacity for uranium enrichment. They consider that, in European conditions, the gas centrifuge process will be economically the most attractive method of enrichment. They believe that collaboration in this advanced field of technology will strengthen European technological cooperation generally and that its joint industrial exploitation will contribute to European economic integration.

3. The three countries, as they have made clear from the outset of their negotiations, stand ready to collaborate with European or other countries interested in the enrichment of uranium by the gas centrifuge process. Given the urgency of making a start with the development and exploitation of the gas centrifuge process in Europe, and given the fact that the three countries are individually well

advanced along this road, they have thought it right to concentrate most of their attention so far on getting industrial collaboration going on a tripartite basis. Their readiness to consider collaboration with other countries has, however, been demonstrated by the holding of informal discussions with the Governments of Italy and Belgium, the two countries which have so far formally expressed interest.

4. The three Governments will promote the establishment and operation of joint industrial enterprises to build centrifuge enrichment plants, to operate such plants and otherwise to exploit the process on a commercial basis. Their research and development effort will be integrated and responsibility for it will be assumed by the joint industrial enterprises as soon as possible.

5. The following understandings concerning the industrial and financial arrangements have been reached.

6. Two principal enterprises are envisaged under the collaboration known as the enrichment organisation and the prime contractor. In each case the shares of the joint industrial enterprises will be held, as to one-third each, by a commercial enterprise or group of enterprises nominated by each of the three Governments: and the Board of Directors of each of the enterprises will consist of an equal number of representatives from each of the three enterprises or groups of enterprises concerned. These national enterprises will be meeting shortly to prepare for the early establishment of the prime contractor and enrichment organisation.

7. The enrichment organisation will establish subsidiary companies to own and operate the initial plants at Alnelo and Capenhurst, and further plants to be established in the future to meet demand arising in the three countries or elsewhere. The enrichment organisation will normally provide at least 51% of the equity capital of each subsidiary. Its headquarters will be in the United Kingdom.

8. The prime contractor will design and construct plants for the

enrichment of uranium by the centrifuge process for the enrichment organisation or its subsidiaries, and will design and manufacture centrifuges for this purpose. It will also be able, subject to approval by the three Governments under the collaboration agreement, to market enrichment plants or centrifuges, and to license the related technology in fourth countries. Its headquarters will be in the Federal Republic of Germany.

9. The initial programme of collaboration will comprise the construction, commissioning and operation of uranium enrichment plants of a total separative work capacity of 350 tonnes per annum, together with the facilities necessary to provide centrifuge machines for this purpose.

10. Enrichment plants for this initial programme will be set up at Capenhurst in the United Kingdom and at Almelo in The Netherlands. It is expected that a separative work capacity of 50 tonnes per annum will be reached at each plant during 1972.

11. Expansion of the plants beyond the 50 tonnes level and up to a combined total of 350 tonnes will proceed in accordance with the growth in the level of demand for enrichment within the three countries, together with any further demand which may be accepted from elsewhere.

12. Decisions as regards expansion of capacity beyond the initial programme of 350 tonnes will be taken in due course by the joint industrial enterprises.

13. In order to provide effective supervision of the joint industrial enterprises, the three Governments will set up a joint committee. Its main tasks will be to consider and decide upon questions regarding safeguards in respect of non-proliferation, security and classification and agreements with other States or with international organisations. Its decisions will be taken unanimously. Pending the establishment of the joint committee a centrifuge preparatory committee of officials is already in operation.

14. The three Governments fully recognise their responsibilities with regard to the non-proliferation of nuclear weapons, to which they attach the greatest importance: and their collaboration will be entirely consistent with their policies and with their international obligations in this field. Appropriate international safeguards will be applied: these will include the procedures of the safeguards system established by the European Atomic Energy Community and the procedures resulting from any additional obligations pursuant to an agreement or agreements concluded with the International Atomic Energy Agency. The three Governments will take all appropriate steps to continue to protect the security of the sensitive technology involved. They take the view that the establishment of international enterprises to develop and exploit the gas centrifuge process will be a substantial contribution not only to the development of the peaceful uses of atomic energy but also to the cause of non-proliferation. The three Governments will ensure that information, equipment and material which may be at their disposal for the purpose of or as a result of the collaboration will not be used by or to assist any non-nuclear-state to manufacture or otherwise acquire nuclear weapons or other nuclear explosive devices.

NOT DECLASSIFIABLE

1-11101

OFFICE DIARY GLENN T. SEABORG Ch: USACC, 1001-72 FOLDER-PAGE/08/86-108/91
--

DOCUMENT TITLE Annex B - Tripartite Centrifuge
collaboration, interim agreement on
security procedures and classification
09/18/68

This document has been determined to be NOT DECLASSIFIABLE and has been removed from this folder.

E. Seeger
Name

11-30-87
Date

Reference letter DoS, Burke to
DoE, OC Gilbert dated 8-19-87

Dave, coming in on a delayed flight from San Francisco, arriving about 7 p.m. They joined the party a little after 8 p.m. Lynne and Bill, Pete, Eric, Dianne, and Dianne's friend Amy Ballou also participated. After the party, Julie and Em Rubin, Justin and Robbie Bloom, Howard Brown and Jan Reinhold, and Lynne and Bill stayed on to talk for a while. Pete, Dave and Steve, of course, are staying with us for the Christmas holidays.

Saturday, December 20, 1969 - D.C.

I worked in the office until about 1 p.m. and then I had lunch at the GJS Ranch with Julie Rubin.

In the afternoon I took a hike with Pete, Larry Novey and Suki in Rock Creek Park. We started at Oregon and Nebraska Avenues and hiked north on the White Horse Trail to Cross Trail 2, then back on the Black Horse Trail to Cross Trails 3 and 4 and back to our starting point.

I then took Dianne to see Santa Claus at Woodward and Lothrop's in the Friendship Heights area; Eric went along. During the afternoon Dave and Steve attended a joint meeting of the Virginia Herpetology Society and Maryland Herpetology Society held at the Washington Zoo. Among those present were Frank Tobey, President of the Virginia Herpetology Society (who works here at AEC), and Peters who is the head of Herpetology at the Smithsonian.

Helen and I attended a Christmas party at the home of Carl and Lois Baker in Potomac, Maryland (11006 Lamplighter Lane). Lois (then Lois Moquin) was the secretary at the Berkeley project beginning in 1942, after I left for Chicago. Among those present, besides Carl and Lois and their daughters, Kathy and Jeannette, were Dr. and Mrs. Endicott (NIH), Mr. and Mrs. Berliner (Chief Scientist, NIH), Dr. and Mrs. Rod Hiller, Dr. and Mrs. Hueber, Dr. and Mrs. John Weisberger and Lois's parents, Mr. and Mrs. Oxon.

Helen and I then attended a reception at the Myron Kratzers in Bethesda (7201 Selkirk Drive). Among those present were the Craig Hosmers, Commissioner and Mrs. Johnson, Commissioner and Mrs. Ramey, numerous atomic energy and scientific attaches from various embassies in Washington and many AEC people.

Attached is a copy of a clipping from today's Washington Post noting that Senator Henry M. Jackson has invited top Pentagon and AEC officials to explain their budget cuts in the national test readiness program in hearings the Senate Nuclear Safeguards subcommittee (of which he is Chairman) hopes to hold early next year.

Sunday, December 21, 1969

Eric and I took a hike in Rock Creek Park, starting at Oregon and Nebraska Avenues, going north on the White Horse Trail to Cross Trail 2, going back on the Black Horse Trail and along the Turtle Trail to Cross Trail 5 and back to our starting point.

I watched on TV the Washington Redskins-Dallas Cowboys football game, which the Cowboys won, 20-10. I also watched the Oakland Raiders-Houston Oilers game, which the Raiders won, 56-7.

**U.S. Readiness
For A-Tests ^{NC}
To Be Reduced**

WASH. POST 12/20/69

Sen. Henry M. Jackson (D-Wash.) said yesterday that the Defense Department and the Atomic Energy Commission have decided to reduce the national nuclear test readiness program to one-third of what it has been as an "economy measure" in the President's budget for fiscal 1971.

Jackson, who is chairman of the Senate Nuclear Safeguards subcommittee, said this budget cut will mean "increases in response time" should the Soviet Union ever decide to resume nuclear tests in the atmosphere and the United States find it has to do the same.

Accordingly, Jackson declared, he has invited top Pentagon and AEC officials to explain their budget cuts in hearings his subcommittee hopes to hold early next year.

I spent a good part of the day working on the Met Lab Section C-1 history.

Lynne and Bill joined us for dinner. Steve and Dave also had dinner with us, while Pete had dinner at his friend's.

Monday, December 22, 1969 - Germantown

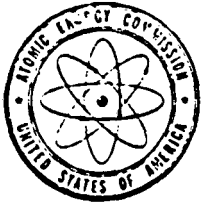
I called Keith Glennan and asked him if he would consider being a candidate for U.S. Representative to the IAEA. After asking several questions about the position he said he would think it over and let me know in a day or two.

At 10 a.m. I presided over Information Meeting 985 (notes attached). We discussed a letter that I will send to Chairman Moss of the House Government Operations Committee, replying to nine questions relative to the policies of the AEC in connection with the rights, privileges and responsibilities of Congress. We decided that this letter should have White House clearance before it is sent to Moss. We also discussed a proposed letter to Mayo, setting dates for the restriction of the import of foreign uranium and the disposal of AEC surplus stocks. We decided to send this letter, thus changing our minds with respect to the discussion of this topic at our special meeting last Wednesday (December 17). We also discussed the work on the AEC task force on AEC Operational Radioactive Waste Management and noted that the following proposed policy has been sent to the AEC field offices for comment: (1) Costing concerned with waste burial must include all costs, e.g., depreciation of facilities, land, and perpetual care. (2) Wastes contaminated with long-lived nuclides (e.g. plutonium) must be kept segregated from other types of waste in a solid waste burial ground. (3) Wastes contaminated with long-lived nuclides must be buried in such a fashion that they are readily retrievable.

I called Chet Holifield and told him I will be sending him a letter today giving a full explanation of my forthcoming African trip and that I think after he knows the background he will have a better feeling about it. In response to his query, I said that I will be using an Air Force plane since it would be impossible to visit the countries on my itinerary using commercial flights; he agreed with this.

I called Tom Paine to ask him what he knows about the message the President is going to deliver tomorrow on space and what role nuclear power will play. He said they have been working on a draft statement for the last week and sent one to the White House yesterday which is made up of basic points for the future, one of which is the importance of atomic energy. He said the input for both power and propulsion is very strong. He also said that the draft statement that was originally sent to them from the White House did not include nuclear power, but NASA added it. He read me the portion of the statement that refers to nuclear power and said he will send me a copy of the complete statement. He said the latest word is that the President is not going to release the statement tomorrow but will do so right after Christmas.

At 12:10 p.m. I presided over Commission Meeting 2402 (action summary attached). We decided to take the staff's recommendation to select one



UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

ENCL. BY DOE
NOV 86

COPY NO. 3
December 22, 1969

INFORMATION MEETING 985

9:55 a.m., Monday, December 22, 1969, Room A-458, Germantown

1. APPA Luncheon Meeting, January 19, 1970, Mayflower Hotel, Washington, D. C.

The Chairman has accepted. (Rubin-SECY)

2. Denver Post and Rocky Mount News Articles re Radon Gas

3. Chairman's 1969 Year-End Statement

To be checked. (SECY-PI)

4. December 17 Letter from Sheldon Novick re Article for Environment Magazine

A response is requested for review by Commissioner Thompson.
(SAGM/EA-PI-SECY)

5. Proposed Letter to Dr. Hanauer, ACRS, re AEC Reactor Safety Research Program and Power Burst Facility Program

A revised letter is requested which should refer to the Commissioners' discussion of this subject with the Committee at the February 1970 meeting.
(RDT-SECY)

6. Proposed Letter to Dr. DuBridge re Panel to Review ORNL Recommendations on Middle East Study

Approved. (Rubin)

7. Presidential Statement re the Space Program

The Chairman telephoned Dr. Paine, and the draft NASA language will be made available. (SNS)

8. AEC 400/17 - Congressional Rights to Agency Information

Approved with revisions. The White House is to be informed. (AGM-GC)

9. AEC 180/72 - Status of Task Force on AEC Operational Radioactive Waste Management

Approved. A briefing is requested. (AGMO)

10. AEC 1192/80 - Proposed Extension of Contract at Richland and Savannah River

Additional information is requested. (DC)

11. AEC 720/213 - Restrictions on Foreign Uranium Enrichment and Disposal of AEC Surplus

Approved with changes. (AGMP&P)

12. Commissioners Ramey and Johnson's 5:00 p. m. Meeting with Senator Jackson Today

13. December 28, 1969, Statement by Dr. Arthur R. Tamplin re Man-Made Radiation

Staff will telephone Dr. Michael May. The statement is to be circulated for the Commissioners' information. (SAGM/EA)

14. Mr. Hennessey's December 19 Memorandum re Owens Corning Fiberglass Corporation and Polytron Company by and through Walsh Construction et. al. Court of Claims #301-66

Approved. (SECY)

W. B. McCool
Secretary

12:00 N

PRESENT:

COMMISSIONERS:

Chairman Seaborg
Commissioner Ramey
Commissioner Johnson
Commissioner Thompson
Commissioner Larson

STAFF:

Mr. Bloch
Mr. Hennessey
Mr. Rubin
Mr. Kull
Mr. McCool
Mr. Pressesky*
Mr. Williams*
Mr. Schoenhaut*
Mr. Erlewine*
Mr. Quinn*
Mr. English*
Mr. DiNunno*
Mr. Crawford*
Mr. Barr*
Mr. Burr*

DISTRIBUTION:

Commissioners
General Manager
General Counsel
Secretary

*Attendance by Topic (s)



UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

UNCL. BY DOE
NOV 86

December 23, 1969

Approved _____

E. J. Bloch, Acting General Manager

EJB

Date _____

ACTION SUMMARY OF MEETING 2402, MONDAY, DECEMBER 22, 1969, 12:10 P.M.,
ROOM A-410, GERMANTOWN, MARYLAND

SECY:JFB

Commission Business

1. Mr. Shaw's August 22 Memorandum re Release of Systems Analyses Task Force Report "Potential Nuclear Power Growth Patterns" (See also AEC 152/253 - Suggested Addition to WASH 1098 - Potential Nuclear Power Growth Pattern and Secretary's December 19 Memorandum)

Approved: (RDT)

2. AEC 1000/147 - Thermionic Reactor Development Program

Approved. (SNS)

Commissioner Johnson abstained on this decision.

3. AEC 780/46 - Establishment & Award of AEC Unit Citation

Approved with revisions. (AGYO/SECY)

I will schedule a Ceremony in early 1970.

4. AEC 1285/6 - Agreement for Cooperation with Finland

Approved. (AGYIA)

5. AEC 867/157 - FY 1971 Nuclear Weapons Deployment Ceiling Plan
AEC 867/158 - FY 1971 Nuclear Weapons Deployment Ceiling Plan
AEC 867/159 - FY 1971 Nuclear Weapons Deployment Ceiling Plan

Approved. (AGYMA)

6. Dr. English's Oral Report on Telecon with Dr. Michael Nav, Director, IRL

W. B. McCool
Secretary

cc:
Commissioners

of the two existing AEC contractors (G.E. or Atomics International) to carry on the thermionic reactor development program; the budget doesn't permit keeping both contractors. We also decided to award a unit citation to the fire department and guard organizations of the Dow Chemical Company in recognition of their actions in fighting the fire at the Rocky Flats plant on May 11, 1969.

I had lunch with Marion Bowden (Assistant for Equal Employment Opportunity, General Manager), John Erlewine and Julie Rubin. We discussed a proposal being developed by Bowden to obtain support from AEC industrial contractors for private contributions at an \$18 million level over the next four years for increasing facilities, scholarships and improving faculty at the six major Negro universities offering engineering degrees. Roger Hibbs of Oak Ridge is organizing this effort. Bowden also explained the present controversy between the GAO and the Department of Labor involving the Philadelphia plan. Marion's explanation is that contractual arrangements were suggested in Philadelphia that require construction contractors to provide certain quotas and goals for minority employment on federal projects. The GAO ruled that setting quotas was illegal in terms of the Civil Rights Act of 1964. The problem involves the lack of qualified craftsmen in certain trades and a plan to force the unions to accept more minorities into these crafts.

I received a call from Bob Penneman (LASL) who said he wanted to tell me that he feels very good about the letter (copy attached) I sent to Bob Fowler. He said that Bob got a tremendous lift out of it and was so touched by it that he nearly broke down. Penneman said it was on a par with something Abraham Lincoln might have written. On another note, he said he met with the committee that is trying to find a replacement for Bradbury and he made a very strong case in my behalf. He said the laboratory has to remain broad and innovative, and he thought my point of view could correct a lot of its problems. I said this thought had never occurred to me, that I doubt such a thing would be likely, but I did want him to know I appreciated it.

Henry Kearns (President, Export-Import Bank) called to say that there is \$1 million yet to be drawn on in the arrangement made (before he came to the Bank) for financing Euratom and that the interest rate is still 4.5 percent. He asked if there is any chance that this rate could be modified to be more in line with current interest rates. I said I am not too familiar with the background on this but that I will look into the matter and be back in touch with him.

I sent a letter to Lee DuBridge commenting on Bryce Harlow's memorandum to him (November 20) concerning the Eisenhower-Strauss desalination project in the Mideast; I agreed with Harlow's proposal that a panel of overseers be set up to review the ORNL Middle East study. (Copies of this correspondence without the draft report are attached.)

I sent a letter to President Nixon (copy attached), with a copy to Budget Director Mayo, concerning two additional items we are requesting be restored to the FY 1971 budget. These additional appeals result from recent DOD decisions on two additional tactical weapons systems.

November 24, 1969

Dear Bob:

I saw Bob Penneman at the Conference on Transuranium Elements in Houston last week and learned from him that you are having some health problems. I was distressed to hear this and hope that you will be feeling better soon.

I was reading the current (October) issue of California Monthly and ran across the enclosed article by John Kenneth Galbraith, describing early days at Berkeley. I must say that this brought back nostalgic memories of my early work with you and George Ernest Gibson in that little room in the Radiation Laboratory.

I don't know whether you have ever realized how important my early association with you in those experiments was to my development as a scientist. You took a gangling youth, unsure of himself and certainly undecided as to his future, and gave him sympathetic attention and direction at a critical time in his career. I recall with fondness, bordering on a feeling that there was almost a magic about it, how you instilled in me an enthusiasm for nuclear science that has never left me. Perhaps you remember those Sunday evening sessions in your little house on the north side of the campus, where you played host to Lou Blanc and me in our little personal seminars on the latest developments; these were of inestimable value to me, and I shall never forget them. And then there were the Tuesday evening seminars run by you and Bill Libby and attended faithfully by G. N. Lewis, Wendell Latimer, Ermon Eastman, and even William Bray, although this wasn't his primary field of interest. I don't believe that I have ever attended a more exciting series of seminars. Here, again, was an example of what I can only describe as "Berkeley magic," and your contribution had so much to do with making it that way.

With best wishes for a speedy recovery,

Fondly,

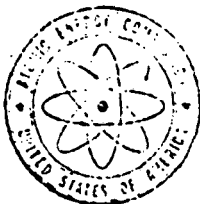
~~Signed~~ Glenn T. Seaborg

Glenn T. Seaborg

Dr. Robert D. Fowler
Los Alamos Scientific Laboratory
Los Alamos, N. M. 87544

Encl.

GTS:HG
Fowler
Spec. Occ.



UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

ENCL. BY DOE
NOV 85

DEC 2 2 1969

Honorable Lee A. DuBridge
Science Adviser to the President
The White House

Dear Lee:

This is in reply to your letter of November 26 and Bryce Harlow's memorandum to you of November 20 in which he sets forth a suggestion that a panel of overseers (members of Congress, scientists, technicians, etc.) be set up to review the Oak Ridge National Laboratory (ORNL) recommendations on their Middle East study.

I believe the suggestion is a good one. Such a panel could provide the effective means of informing Congressional members of the results of the Middle East study, and provide an assessment of the pros and cons of the agro-industrial energy center complex applied to the Middle East, as well as an independent judgment of the ORNL recommendations. It is noted that the ORNL report will refer quite specifically to the potential of the agro-industrial center in the Middle East. Thus, we believe it would not be appropriate to use only this report as a basis for deciding overall policy on a much broader desalinization program as could be inferred from the suggestion in Mr. Harlow's letter.

A first draft of the ORNL general report on the Middle East study is scheduled to be available in January and the final draft incorporating the comments of the ORNL, Advisory Panel and Government agencies is scheduled for April. Based on this schedule, and if it is determined that such a panel is appropriate, it would be advisable to schedule the first meeting of the panel as soon as practicable after the final draft of the report becomes available.

Honorable Lee A. DuBridge 2

We would be pleased to work with you in setting up such a panel and would be glad to suggest candidates for membership if you so desire.

Cordially,

A handwritten signature in cursive script, appearing to read "Glimmer".

Chairman

Enclosure:

Status report on Middle East study, w/attachments

THE WHITE HOUSE
WASHINGTON

ENCL. BY DOE
NOV 86

November 26, 1969

Dear Glenn:

I would be pleased to have your comments on the enclosed memorandum from Bryce Harlow. I would be interested in knowing also the status of the Oak Ridge work in this field.

Sincerely,



Lee A. DuBridge
Science Adviser

Enclosure

Honorable Glenn Seaborg
Chairman
Atomic Energy Commission
Washington, D. C.

MEMORANDUM

THE WHITE HOUSE

WASHINGTON

November 20, 1969

ENCL. BY DOE
NOV 26

TO: Dr. Lee DuBridge

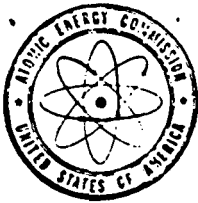
FROM: Bryce Harlow *BH*

The President expressed interest in giving Senator Baker some visibility with regard to the Eisenhower-Strauss desalinization project in the Mideast. As you may know, he has long been a leading supporter of this scheme.

I understand from Saunders of the NSC staff that there are certain significant studies now being conducted by the Oakridge Laboratory which will, when completed in a month or two, have a decided impact on the future of our desalinization policy.

Rather than sending a delegation of Congressional Members to the Mideast following the results of these studies -- which Saunders feels would be inappropriate at this time because of the highly explosive situation there -- he suggested setting up a panel of overseers (Members of Congress, scientists, technicians, etc.) to review the Oakridge recommendations.

Would you check with AEC to see what the feasibility of such a panel would be? If something of this type could be worked out, I am sure the President would like Senator Baker to serve on the panel.



UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

ANCL. BY DOE
NOV 86

DEC 22 1969

The President
The White House

Dear Mr. President:

Subsequent to our letter to you dated December 11, 1969, concerning our appeal for restoration of certain FY 1971 budget reductions, we have been advised that the Department of Defense has requested reconsideration of two additional tactical weapons. Their memoranda dated December 11, 1969, and December 19, 1969, set forth the requirements for these weapons. We, therefore, are requesting that our appeal for weapons production be increased by \$15.2 million in budget authority and \$7.5 million in budget outlays. Of the increase in budget authority, \$7.2 million represents the FY 1971 funding required to initiate construction of a \$17 million production facility.

I am sending a copy of this letter to the Director of the Bureau of the Budget.

Respectfully yours,

Signed Glenn T. Seaborg

Chairman

Tuesday, December 23, 1969

I had lunch in the Commission dining room with Julie Rubin and Stan Schneider.

At 2:15 p.m. the entire group which will be traveling with me to Africa and Europe, with the exception of Helen, Mrs. Jane Pollack and Dr. Cyril Comar, assembled at the State Department for a briefing on the countries in Africa we will visit. The briefing was chaired by Robert Smith (Deputy Assistant Secretary) who was assisted by Edward W. Holmes (Country Director, Ethiopia and Kenya), Raymond L. Perkins, Jr. (Country Director, Ghana), John A. McKesson (Country Director, Congo) and James Blake (Country Director, Morocco and Tunisia) who explained the political and economic status of the six countries. We asked questions about climatic conditions, places of interest, and technical matters of interest to the AEC. David D. Newsam, Assistant Secretary for African Affairs, came in near the end of the briefing.

I then went to the White House to meet with President Nixon concerning our appeal on the FY 1971 budget. The meeting was held in his oval office and lasted from 4 to 4:30 p.m. Others present were Robert P. Mayo (Director, Bureau of the Budget), James R. Schlesinger (Deputy Director, BOB), John D. Ehrlichman (Assistant to the President for Domestic Affairs) and Henry A. Kissinger (Assistant to the President for National Security Affairs). The President began the meeting at 4 p.m. by saying that this is a tight budget year, particularly due to the need to make up a shortfall of \$2.5 billion as a result of recent congressional action. He then called on me to present my case. He had some briefing papers before him which he referred to as I talked. Actually it was pretty much a monologue with my presenting my arguments with very little comment from the others. Mayo and Schlesinger made essentially no comments, while Ehrlichman and Kissinger made a couple of comments. The President pretty much limited his remarks to calling for the next item as I proceeded and indicated at the end of each item that he understood the issue, making notes on his legal pad as I talked.

I began by saying that there were six items that I wanted to take up with him as appeal items. He asked me to proceed with the first item which he identified as the CIP. I described the need for additional money for A&E on the process equipment, modifications and the advance procurement of long lead time items in order that the Cascade Improvement Program might be put into effect. I pointed out that the additional money amounted to a budget outlay of only \$3 million and said that this would lead to an additional separative work capability of about 25 percent and that the unit cost for this additional capability would be only about half that of the existing capability. I pointed out that this would be needed to meet forthcoming requirements and that Congressmen Hosmer and Holifield had indicated that they would hold hearings and possibly try to enact legislation establishing a government corporation that would make it possible to apply revenues in order to provide for the Cascade Improvement Program if the FY 1971 budget did not include sufficient provision for this item.

At the President's suggestion I went on to the second item which was the matter of the shutdown of two K reactors at Richland, Washington. I indicated that my main concern here is the impact on the community which

is about 60 percent dependent on the operation of the Hanford plant. I described the amount of money that would be needed to restore both reactors and also the amount that would be needed to restore one or to operate the two reactors sequentially. I reminded him that he had restored the two reactors as a budget action soon after he came into office. I also reminded him of the interest of Senators Jackson and Magnuson and Congresswoman May in this matter. I said that the impact of an immediate shutdown of two reactors would be disastrous to the community and that a shutdown should be carried out over a longer period of time. I described the diversification program and the amount of money that has been invested in the tri-city area by private industry in this connection.

I then went on to the third item which was the restoration of funds for the production of four nuclear weapons. These are: the B-61 bomb, the warhead for Minuteman III, the 155 mm. artillery fired atomic projectile and the Army Lance missile. I said that these are not in our severely cut nuclear weapons production budget which has led Dave Packard to feel that this budget has been cut too deeply and to ask that this be restored. I indicated that the total involved here is \$17.7 million of budget outlay and \$28.8 million of budget authority. Kissinger and Schlesinger indicated that the addition of funds to meet the Minuteman III schedules is not an issue, and I agreed, saying that I understood that the other three items are issues.

I then described the issue concerning the readiness capability to resume atmospheric tests. I described the four safeguards that had been agreed to by President Kennedy as a matter of national policy in connection with the adoption of the Limited Test Ban Treaty. I explained that the combined budget for test readiness had been running at \$40-50 million and would have continued at this level, but it has been cut to zero in the BOB action. I indicated that DOD and AEC are asking for restoration of about \$15 million in the FY 1971 budget and are proposing that it be held at this level in subsequent years. I said that the AEC portion of this is \$8.5 million and that of the DOD, \$7 million. I indicated that it might be possible to eliminate the readiness capability to resume atmospheric tests sometime in the future, but it is probably too drastic to do so in one step. I indicated that Senator Jackson feels strongly about this and has recently made statements that indicate dissatisfaction with the cut in the program--it is difficult to assess his greater degree of dissatisfaction if the program is cut out entirely. I also referred to the letter that Congressman Holifield has written to me protesting the cutback in the atmospheric testing readiness program, which I said I haven't yet attempted to answer, and I pointed out that copies of this letter have gone to Senator Jackson, Henry Kissinger and Secretary Melvin Laird.

I then went on to describe our requirements for the restoration of funds in basic research. I said that an increase of \$10 million is required in the physical research program to, in effect, hold it even, although the FY 1971 budget proposed by BOB is \$278 million, the same level as the FY 1970 budget. There is a sort of built-in required increase of \$10 million, largely in the high energy physics field. This corresponds to the required increase in operations for the 200 Bev Accelerator, the two-mile long Stanford Linear Accelerator Center, the AGS at Brookhaven and in the field of controlled thermonuclear research. I said that

controlled thermonuclear research is regarded by some as the most important field of research today, and I quoted Lewis Strauss's statement to that effect made at a meeting of the Washington Section of the American Nuclear Society last May. I said that to counterbalance this \$10 million built-in increase, it would be necessary to cut \$10 million from the physical research program, which would terminate the operation of the Princeton Proton Accelerator and the Cambridge Electron Accelerator (which, I said, represents the only capability for clashing beam experiments), reduce operation of the Berkeley Bevatron, reduce the research level at AEC laboratories, such as Argonne National Laboratory, Brookhaven National Laboratory, Lawrence Radiation Laboratory, Oak Ridge National Laboratory, etc. and to terminate approximately 60 research contracts at universities. I said that the latter, especially, would have a terrific impact and would be something that we have never done before.

I then went on and explained that we would need an addition of \$1.9 million in the Biology and Medicine program, which has been held level at \$89.5. This increase is required to carry on our work on the interaction of radiation with biological systems, our work on the control of radiation exposure to man and his environment, etc. At this point Ehrlichman said that he has been concerned about the criticism concerning the effect of nuclear power plants on the environment, and I responded that that is a criticism of all methods of electricity generation and that the criticism is even more against fossil-fueled plants because of the air pollution that they cause.

I then went on to the last item, which the President referred to as a small item. That had to do with AEC staff. I pointed out that the staff at AEC has been held constant and has even gone down since 1964. I said that we are asking for an increase of 140 people in order to hold level in FY 1971. I emphasized that we have only 7,000 employees to direct the work of our contractor employees which number about 125,000. I also emphasized that the salaries for an additional 140 employees would be much smaller than would correspond to the money that would be saved through the more efficient operation that would be made possible by the supervisory efforts of these additional employees. I said that due to the burgeoning nuclear power business, we simply have to have more people in the regulatory field and that these would have to be taken from the supervisory employees directing the Commission's operation, which would lead to a difficult situation.

At this point Ehrlichman asked how many of the 7,000 employees are concerned with regulatory matters, and I said that this is about 500. He called the President's attention to the fact that Senator Jackson's bill creating an agency to centralize all environmental regulatory matters is making progress; he asked whether, if such an environmental regulatory agency were created, the AEC regulatory function should be placed under it. I said that this would be possible some day, but it would be premature now because this is a highly technical field which requires the regulatory people to be in close proximity to the people doing safety research and to the programmatic work on nuclear power reactors. Ehrlichman said that he would write me a memo asking for an explanation of my statement on this.

The meeting was brought to a conclusion by the President repeating that this is a tough budget year and that things might be better next year.

He referred again to the \$2.5 billion shortfall. He indicated, somewhat enigmatically, that the AEC budget had been well prepared and inferred, well treated. The President thanked me for my presentation and the session came to a close at exactly 4:30 p.m. This budget appeal session was in sharp contrast to my meetings with Presidents Kennedy and Johnson, with their give-and-take discussions. I have the impression that President Nixon had his mind made up before I came and will rule against me on practically all of my appeal items.

A grim-faced Tom Paine was in the waiting room and was asked to enter just as I was leaving.

I had a call from President Charles Hitch of the University of California. He asked if I would be on the West Coast in the next few weeks as he and Jack Oswald are anxious to talk to me about problems relating to Los Alamos and the Radiation Laboratory. I told him I would be going to Africa the first of January for two weeks. I told him I am beginning to pick up a little information on a possible controversy over the successor to Bradbury and that I have the feeling that it might be wise to slow down the selection process. I said if they go ahead knowing there is no generally acceptable solution, they will have some unhappy people. I said with a little more time it would be possible to begin to lean toward one or the other and give that person a chance to prove himself with the others. I told him that people have talked to me about it confidentially, and they are quite worried that one candidate or the other will be chosen. He said he has had letters and phone calls on this matter. He asked if I am thinking of asking Bradbury to delay his retirement. I said that is not out of the question and that I rather suspect that Norris would not be adverse to doing that under the proper circumstances. I said that is the only solution I can see at the present time. He said he would try to have a talk with me after I return from Africa.

I asked him how the tuition matter is coming along. He said they are not using that term but calling it fees which will be used for increased student financial aid and needed capital facilities. He said the increase would probably be \$200-\$350, spread over three years. He doesn't think they can hold it lower than that and accomplish the purpose. I said I am still concerned about it.

Martin Sherwin, Acting Assistant Professor of History at Berkeley, stopped by to see me. With a Ph.D. from UCLA pending, he is writing his Ph.D. thesis on "The Decision to Drop the Atomic Bomb." We discussed my role in the writing of the Franck Report.

I received another memorandum from Allan Labowitz (copy attached) bringing me up to date on the SALT negotiations taking place in Helsinki.

I received a letter from Chet Holifield (copy attached) concerning a possible revision in AEC supply policies for plutonium sales abroad in reply to my letter of July 25, 1969 (copy attached).

Wednesday, December 24, 1969 - D.C.

At 10 a.m. I presided over Information Meeting 986 (notes attached). We decided to send a letter to Attorney General Mitchell (copy attached)

DEC 23 1969

UNCL. BY DOE
NOV 86

Files

SALT-HELSINKI

On December 13, I again visited Phil Farley and read several cables from the SALT delegation at Helsinki. The cables reported on three formal meetings with the Soviet delegation during the preceding two weeks.

Key points that emerged were:

1. The Soviet delegation reiterated its interest in including in the program of work for the substantive talks the subject of an agreement prohibiting the transfer of strategic delivery vehicles to other countries.
2. The Soviet delegation pointed out that discussion of verification by means other than "national means" ran the risk of raising that issue to a primary position, thereby endangering the prospects for reaching agreement on the most important matter - limitations on strategic weapons. In expressing their concern that the issue of verification could become the dominant issue, they referred to the negotiations preceding the LTBT and recalled that the US had said that other than national means were necessary for such an agreement, but that the LTBT had "worked" just as it was intended, without any other form of verification, and that the national security interests of both sides had been preserved. The Soviet position on verification in SALT was expressed as: present technology and the potential for further advances are sufficient to provide the necessary confidence to both sides of compliance with any SALT agreement.
3. The Soviet delegation expressed interest in discussing limitations on flights of strategic aircraft (such as prohibitions on such flights outside each country's territories) and limitations on patrols by naval vessels, such as submarines. (Ambassador Smith stated that the US would not agree to include such discussions in the program of work.)

4. The Soviet delegation expanded on its earlier comments concerning their wish to discuss the matter of unauthorized launchings of missiles. They suggested that "technical and organizational" measures for assuring against unauthorized launches be included in the discussion. (Their earlier comments had referred to the situation where large numbers of people, of various types, now had access to strategic missiles.)

5. Several of the Soviet comments make it clear that their position on which weapons are "strategic" differs from that of the US. For example, their position on "strategic" aircraft seems to be that all aircraft capable of carrying nuclear weapons and, by virtue of their location (on aircraft carriers or at forward bases outside each other's territories) can attack the territory of the other, should be considered strategic. Similarly, land-based missiles located in the Soviet Union, for example, which do not have sufficient range to reach US territory should not be considered "strategic." (Ambassador Smith pointed out that the US must be concerned with missiles which threaten our NATO allies. The Soviets, however, are well aware that, when they suggested earlier that the strategic weapons of countries other than the US and the USSR should be considered in SALT, the US took the strong position that SALT was concerned with the strategic relationship between the US and the USSR and that the subject of limiting strategic weapons of third countries, not represented at the talks, could not be discussed.)

The US tabled a proposed "program of work" for the substantive talks, with caveats that the listing of topics would not preclude discussion of other matters, that it was not an "agenda" in any formal sense of fixing the order or scope of discussions and that it was not to be made public. The US proposal listed the following four subjects:

- a. ABM's, including SAM's which may have some capability for antimissile defense.
- b. Land-based strategic missiles. (Under this heading, Ambassador Smith explained that various components or elements of such systems would be addressed, such as boosters, penetration aids, MIRV's, MRV's, decoys and radars.)
- c. Sea-based strategic missiles.
- d. Strategic bombers and anti-aircraft systems.

In response to a previous suggestion by the Soviets that "moth-balled" strategic weapons, which could be reactivated quickly, be included in the discussions, Ambassador Smith stated that the US delegation had

no knowledge of any US weapons in such condition and asked whether the USSR had any.

The Soviet delegation seemed to take issue with the inclusion of SAM's in the first category of the US proposed program of work, in a general comment that only those weapons having "strategic" capabilities be considered and not those which needed to be modified for such purposes or which had only a speculative or potential "strategic" capability. (There is an apparent inconsistency between this general position and the Soviet position on the definition of "strategic" aircraft.)

I noted to Farley that the reference by the Soviets to "technical" means for guarding against unauthorized launches of missiles (which was not elaborated upon by the Soviets in their prepared statement) seemed to be a reference to PAL-type devices. I pointed out that this was an area in which AEC had experience which might be relevant in preparing the US position on this subject for the substantive talks. Farley agreed with these points.

As of December 13, the Soviet delegation was awaiting instructions from Moscow concerning the US proposed program of work and the joint communique which would announce the date of the substantive talks. Farley noted that the US had proposed mid-February, but that the Soviets seemed to be thinking of some time in March. He did not mention the question of the site.

Copy to
Allan M. Labowitz

Allan M. Labowitz
Special Assistant for Disarmament

1A: A. Labowitz
2A: Chmn. Seaberg
3A: R.E. Hollingsworth

GILT HOFFIELD, CALIF.,
CHAIRMAN
MELVIN PRICE, ILL.
WAYNE N. ACHINALL, COLO.
JOHN YOUNG, TEX.
ED EDMONDSON, OKLA.
CRAIG HUNTER, CALIF.
JOHN B. ANDERSON, ILL.
WILLIAM M. MCCULLOCH, OHIO
CATHARINE MAY, WASH.
EDWARD A. BAUSER, EXECUTIVE DIRECTOR

Congress of the United States

JOINT COMMITTEE ON ATOMIC ENERGY

WASHINGTON, D.C. 20510

December 22, 1969

JOHN D. EASTON, R.I.,
VICE CHAIRMAN
RICHARD B. RUSSELL, CALIF.
CLINTON P. ANDERSON, ILL.
ALBERT GORE, TENN.
HENRY M. JACKSON, WASH.
GEORGE D. AIKEN, VT.
WALLACE F. BENNETT, UTAH
CARL T. CURTIS, NEBR.
NORRIS COTTON, MISS.

ENCL. BY DOE
NOV 26

Honorable Glenn T. Seaborg
Chairman
U. S. Atomic Energy Commission
Washington, D. C.

Dear Dr. Seaborg:

This refers to your letter of July 25, 1969 and recent discussions between the Joint Committee and AEC staffs concerning a possible revision in AEC supply policies for plutonium sales abroad, including a possible reduction in the sales price for such plutonium.

As you know, at the Joint Committee's request the General Accounting Office has been reviewing the proposals set forth in the Commission's letter of July 25. Copies of the GAO's reports (one classified, the other unclassified) have been transmitted to the Committee, and the Committee staff has met with representatives of the GAO to discuss this matter.

Based on the GAO report and the Committee's consideration of this matter, the Committee would have no objection to a reduction in price for fuel-grade plutonium now in the Commission's inventory so long as the reduced price reflected all of the Commission's out-of-pocket expenses in producing such material. We would expect, of course, that the Commission would maintain a sufficient plutonium inventory to supply all of the AEC's anticipated programmatic requirements. Further, we agree with the GAO recommendation that a determination should be made by the Commission prior to revising the sales price of plutonium as to whether there is a reasonable probability any resultant reduction in revenues from leased material would be at least offset by increased plutonium sales generated by the price reduction.

The Committee believes that the supply terms called for in the Committee's report on the 1967 Omnibus legislation--namely, that

Honorable Glenn T. Seaborg

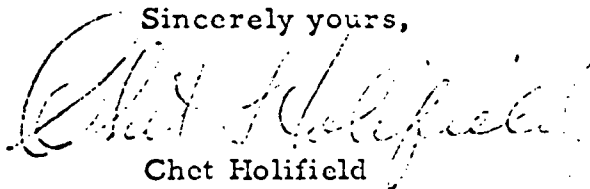
- 2 -

acquisition from private owners of power reactors licensed by AEC cannot exceed 50 percent of the foreign buyer's purchases from the U.S., and that no more than 75 percent of any one operator's plutonium can be sold--should continue for the time being. However, for the reasons expressed in the GAO report, we agree that the Commission need not continue these conditions beyond calendar year 1970 if the Commission believes they should terminate at that time.

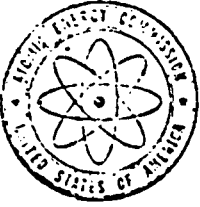
Finally, we believe that so long as the aforementioned 50-50 rule is in effect it should be applied on the basis of total plutonium rather than fissile content. The legislative history of the increased authorization for transfer of plutonium to Euratom enacted in 1967 makes it clear, I think, that the Commission and the Committee were thinking in terms of total plutonium rather than fissile content. Certainly there is nothing in the hearing record to indicate that the 50-50 rule was to be applied on the basis of fissile content.

Please keep the Committee informed of any future developments in connection with any AEC changes in supply policies for sales of fuel-grade plutonium, as well as in connection with any Commission or private sales of such plutonium abroad.

Sincerely yours,



Chet Holifield
Chairman



UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

JUL 25 1969

ENCL. BY DOE
NOV 88

Mr. Chet Holifield, Chairman
Joint Committee on Atomic Energy
Congress of the United States

Dear Mr. Holifield:

In accordance with Commissioner Johnson's discussion with you and Senator Pastore, it is our intent in this letter to discuss several aspects of our current arrangements for the supply of plutonium to Euratom and Japan, with particular emphasis on our pricing policy. The principal motivation for reexamining these supply policies and arrangements is our interest in generating additional revenues in the near term from plutonium sales abroad.

Before defining the specific policy revisions we have in mind, I believe it would be helpful to review certain of the current policies and to a degree the history of their development. It should also be useful to identify those related circumstances which have changed since the time of establishing our plutonium supply terms in 1967.

Background

The plutonium supply arrangements include provisions that U.S. private industry can transfer no more plutonium abroad than an amount equivalent to that for which the AEC has a commitment to supply and that a private U.S. reactor operator can supply under these arrangements no more than 75% of his plutonium. (The plutonium currently authorized for transfer abroad subject to these supply terms is the additional 1,000 kilograms authorized by Congress for distribution to Euratom and the 365 kilograms of plutonium provided for in the new U.S.-Japanese Agreement for Cooperation.) Moreover, the report accompanying the law to increase by 1,000 kilograms the amount of plutonium that can be supplied to Euratom recommends that the AEC-supplied portion of the material be "on a straight-cash basis at the AEC's price in effect at the time of delivery of such material, such price to be related to the AEC's cost of producing plutonium in the AEC reactors--currently \$43 per gram of fissile isotopes."

In the course of our discussions and hearings with the Committee regarding plutonium supply prior to the 1967 authorization, the formulation for implementing the supply terms and conditions was not explicitly defined. Attention at that time was directed more to the principles involved rather than the detail of implementation, and there was no definition of whether the 50-50 rule would be applied on the basis of fissile content or total plutonium. Upon reviewing the record it appears that the intent was to apply this rule on the basis of total plutonium in view of the fact that Euratom's requirements and the ultimate increase in the plutonium ceiling of the Euratom Cooperation Act had been defined in terms of total plutonium. In addition, the impact on possible revenues to the U.S. Government resulting from various pricing formulations was determined on the basis of a 50-50 split of total plutonium between AEC and private sales.

The 75% rule was considered with the Committee only with regard to its desirability for purposes of increasing the probability that more than one or two of the U.S. utilities would benefit from plutonium sales during this period through CY 1970.

Status of U.S. Plutonium Sales and Related Considerations

While the 1,000 kilogram increase in plutonium authorized for Euratom was based on specific net requirements in the Community through CY 1970, the volume of sales pursuant to this authorization has been relatively small to date. About 110 kilograms have been sold by the AEC and private industry expects to sign shortly a contract for a similar quantity. There have been three principal related factors contributing to this unexpectedly small volume of sales. The two main users of this material--Germany and France--suffered some fiscal problems in their nuclear programs; there developed unexpected alternate sources of supply of plutonium (U.K. and Canada) with relatively low prices; and the average U.S. price for plutonium was unattractively high in light of the first two factors. The AEC price, when averaged with that from private sources, results in an overall U.S. price which has essentially priced U.S. plutonium out of the market. Another factor of essentially equal significance is the U.S. requirement that we receive information derived from the use of this material, a requirement not associated with British or Canadian sales.

Proposed Revision to Plutonium Price

Within certain limits, production of fuel grade plutonium is somewhat less expensive than production of weapons grade plutonium. As a result of previously programmed production of fuel grade plutonium in AEC

production reactors, together with recent changes in material requirements schedules, the AEC will have available in the near-term future some surplus quantities of this quality plutonium. Over the longer term, projected fuel grade plutonium requirements would, under certain assumptions, utilize all of presently committed production. On the basis of other assumptions, there could be a long-term excess of availability over peaceful program requirements.

Any surplus inventory of fuel grade plutonium beyond the needs of the non-weapons program and beyond what may be sold for peaceful applications could be converted to weapons grade material by blending. However, production of material suitable for weapons use by blending fuel grade plutonium with specially produced, low exposure, material is more expensive than direct production of weapons quality product. The blending costs are such that the value of the material for blending purposes is significantly below costs of production. Thus, sale of any such material at a price in excess of this value would be financially advantageous. In addition, the extent to which the market for AEC produced plutonium is increased, the average unit cost of production can be lower as a result of spreading fixed cost factors over the larger throughput.

The current projections for AEC out-of-pocket costs for producing plutonium as nitrate under the planned mode of operations in FY 1970 are:

	<u>\$/gm Pu</u>
Lowest (K Reactors)	27.73
All Production Reactors ^{1/}	31.59

We cannot prove that a reduction in the AEC price will have a significant beneficial impact on U.S. sales. All that appears reasonably certain in this connection is that such a development would result in additional sales of 100-120 kilograms to Euratom. It is likely, however, that plutonium requirements materializing in 1970 will be deferred if cheaper material is available within a year. By the same token, a sufficiently attractive price in 1970 might bring about sales in anticipation of requirements arising a year later.

1/ 2 K's + N at RL and SR's three reactors; Pu-240 content ranging from 6-12%.

If we can agree that the U.S. objective is, as we believe it should be at least through CY 1970, to maximize our plutonium revenues at a price which will at least recover out-of-pocket costs, we propose reducing the AEC base charge for plutonium as nitrate to \$30 per gram total plutonium, which approximates our out-of-pocket costs for our most efficient reactors. This price would then constitute the established AEC base charge for plutonium through at least CY 1970. In view of the fact that we only very recently signed the sale contract with Euratom for about 110 kilograms of plutonium, we feel that a price reduction or the fact that we are considering such a course of action should not be revealed before this fall.

Post-1970 Policy

As mentioned above, the legislative history in connection with the 50-50 and 75% rules for supplying plutonium to Euratom and Japan evolved on the basis of these rules constituting conditions of supply through CY 1970. The 1,000 and 365 kilogram requirements for the Euratom and Japanese programs, respectively, were represented as estimated needs for these programs through CY 1970. At the time of the negotiation of the Japanese Agreement for Cooperation and the 365 kilogram plutonium ceiling contained therein, we would not consider the Japanese needs beyond CY 1970 due to a number of factors, including the uncertainty of AEC's role as a supplier of plutonium after 1970 and the fact that increasingly large quantities of material would be coming available from the civil power programs after that date.

In view of these considerations, we do not feel it would be proper to extend the 50-50 split and 75% supply conditions beyond CY 1970. As one would expect, the Plutonium Export Association also proposes that these supply provisions not apply for the period beyond 1970 (see March 24 letter from Mr. Briggs to me). Moreover, the Association recommends that these provisions be discontinued starting now. To adopt the latter recommendation would obviously be inconsistent with any effort to promote sales of AEC plutonium in FY 1970. It is probable that any opportunity we may have of selling plutonium as a result of a price reduction would be between now and 1971 since our out-of-pocket costs will almost certainly exceed the price of plutonium becoming increasingly available after 1970 from such sources as the U.K.

Application of 50-50

There is a question concerning the pre-1971 application of the 50-50 rule that we would like to resolve. The Plutonium Export Association and the Europeans, have requested that the 50-50 rule be computed on the

basis of fissile plutonium rather than total plutonium. The fissile content approach would result in greater industrial sales since the privately-produced plutonium is generally of lower fissile content than that available for sale by the AEC. As we mentioned above, during the hearings on the Euratom plutonium authorization there was no specific distinction drawn between total plutonium and fissile content for purposes of applying the 50-50 rule. However, overall legislative history indicates rather clearly the intent of Euratom, the AEC, and the Joint Committee that the ceiling increase and its implementation was considered on the basis of total plutonium rather than the fissile material. We have advised the Export Association that for the time being they should proceed on the basis of total plutonium rather than fissile content. However, it appears to us that the fissile content formula would result in beneficial effects on additional sales and should be the basis for implementing this supply provision. The fissile content formula and a price reduction would complement each other in encouraging additional sales revenues. There is direct evidence that regardless of our ultimate position on a price reduction, use of the fissile content approach will result in an additional governmental and private sale of about 50 kilograms each in FY 1970. Moreover, this approach would not decrease the revenues to the U.S. Government so long as the sales during this period are significantly less than the total 1,000 kilograms authorized, which will undoubtedly be the case.

Summary

In summary, the AEC proposes:

1. A reduction through at least CY 1970 in the AEC base charge for fuel grade plutonium (6-12% Pu-240 content) to \$90 per gram of total plutonium in the form of nitrate, with such a reduction to be announced no earlier than this fall. In no event would the AEC price be less than that for privately-produced plutonium;
2. The 50-50 and 75% supply terms should not extend beyond CY 1970;
and
3. Application of the 50-50 rule should be on the basis of fissile content rather than total plutonium.

Mr. Holifield

- 6 -

In the event you have any questions about this matter, we would be pleased to discuss it with you.

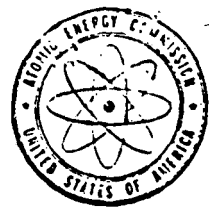
Cordially,

(Signed) Glenn T. Seaborg

Chairman

Distribution:

- 1A - Addressee
- 2A - Chairman Seaborg
- 3A - Chairman Seaborg
- 4A - Commissioner Ramey
- 5A - Commissioner Johnson
- 6A - Commissioner Thompson
- 7A - Commissioner
- 8A - Secretary
- 9A - Secretary
- 10A - Congressional
- 11A - Congressional
- 12A - GM
- 13A - GM
- 14A - AGMPP
- 15A - AGMIA
- 16A - CGC
- 17A - CC
- 18A - IA file copy
- 19A - IA:DD
- 20A - IA:ADSMD
- 21A - IA:NAS
- 22A - IA:ADSMD reading file
- 23A - IA source file
- 24A - IA reading file
- 25A - IA:ADSMD, suspense



UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

FILED BY DOE
NOV 86

COPY NO. 3
December 24, 1969

INFORMATION MEETING 986

10:00 a.m., Wednesday, December 24, 1969, Chairman's Conference Room, D.C.

1. Chairman's Report on December 23, 1969 Meeting with the President re FY 1971 Budget Appeal
2. Commissioner's Dinner Meeting With Joint Committee, February 5, 1970

Scheduled (SECY)

3. Conference on Scientific Results of Apollo 11, January 5-8, in Houston

Commissioner Larson will attend. (Rubin-SECY)

4. Mr. Kratzer's December 24, 1969 Memo re Dedication of the Tarapur Atomic Power Project

Noted.

5. December 16 Letter from Senator Muskie re Queries on AEC Role in Planned Symposium on Engineering with Nuclear Explosives

Preparation of a reply is requested. (PNE)

6. December 18 Letter from Edwin Goldwasser, NAL re Retirement of Stan Livingston

Noted. The Chairman will reply. (Rubin-SECY)

7. December 22 Letter from John Whitaker, White House, re a Comprehensive Plan of Action by Federal Agencies
Staff recommendations are requested. (AGMO)
8. December 16 Letter from Governor Evans, Washington State, re Proposed Establishment of Environmental Quality Control Agency
Staff recommendations are requested. (Deputy GM)
9. AEC 610/198 - Exchange of Gas Centrifuge Rights with U.K.
Patent exchange negotiations will not be held at this time. Staff will forward recommendations on the question of a visit. (AGMIA)
10. AEC 782/62 - U. K. Desire to Seek Gas Centrifuge Patent Protection
Discussions with the U.K. are requested. (AGMIA)
11. AEC 23/92 - Proposal for Liberalized Export Policy for Romania
Approved. (AGMIA)
12. AEC 986/14 - Gift of SNM to IAEA for 1969
Noted. (AGMIA)
13. AEC 343/22 - Assertion of Executive Privilege Against Disclosure of AEC Files re NS Savannah Litigation
Approved, a report on NS Savannah is requested. (GC -AGMR)
14. Mr. Harris' December 23, 1969 Memorandum re Proposed Press Handling of Tamplin-Gofman Rebuttal
Approved. (PI)
15. AEC 334/58 - Discontinuance of Announcement in Washington of Routine U.S. Underground Nuclear Tests
Noted. (PI)

16. Pending Contractual Matters Report Number 338

Noted. (PAR)

17. Mr. Slaton's December 22 Memorandum re "Annual Report to Congress for 1969" for Commission Approval

Commissioners' views will be forwarded to staff by December 31, 1969. (PAR-SECY)

18. NTS Events for the Week of December 22 and December 29, 1969

Noted.

19. Status of White House Approval of MANDREL III

The Chairman said this will be checked. (Rubin)

20. January 16, 1970 Visit by Senator Tydings to Headquarters

Scheduled. (Deputy, GM-SECY)

21. Designation of Acting Chairman - January 3-6, 1970

Commissioner Ramey is designated. (Rubin-SECY)

22. Draft Letter to Gabriel O. Wessenauer, TVA

Requested. (SECY)

23. Witnesses for Rulison

Approved. (GC)

MERRY CHRISTMAS

W. B. McCool
Secretary

11:30 a.m.

PRESENT:

COMMISSIONERS:

Chairman Seaborg
Commissioner Ramey
Commissioner Johnson
Commissioner Thompson
Commissioner Larson

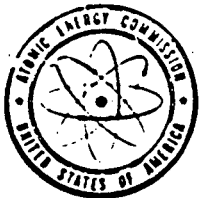
STAFF:

Mr. Bloch
Mr. Hennessey
Mr. McCool
Mr. Rubin
Mr. Schoenhaut
Mr. Kratzer*
Mr. Baranowski*
Mr. Pender*
Mr. Anderson*

DISTRIBUTION:

Commissioners
General Manager
General Counsel
Secretary

*Attendance by Topic(s)



UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

UNCL. BY DOE
NOV 88

DEC 24 1969

The Honorable John N. Mitchell
The Attorney General

Re: New York Shipbuilding Corporation v. United States,
Court of Claims No. 97066

Dear Mr. Mitchell:

New York Shipbuilding Corporation (NYS) has obtained an Order from Commissioner Mastin White of the Court of Claims directing that the Atomic Energy Commission produce certain documents in connection with the above-entitled suit. Without specifying any particular documents, production is ordered, except for documents classified in the interest of national security, of minutes of proceedings, letters, recommendations, directives and reports of the Advisory Committee on Reactor Safeguards (ACRS), the "Health Evaluation Board", and the Division of Naval Reactors of the Atomic Energy Commission relating to the NS SAVANNAH or to Plaintiff's performance under Contract No. MA-1675.

In deference to the Commissioner's Order, we shall make available the requested material from the files of our former Hazards Evaluation Branch. (We have never had a "Health Evaluation Board".) The only pertinent item in the files of the Division of Naval Reactors consists of a summary of a technical evaluation of the NS SAVANNAH project based on classified experience and data developed in the naval nuclear propulsion program and is thus classified in the interest of national security and beyond the scope of the Order.

With respect to the material in the files of the ACRS, we believe disclosure should be resisted. The ACRS is an independent Committee established pursuant to Section 29 (42 USC 2039) of the Atomic Energy Act of 1954, as amended (the Act). Pursuant to Section 182 b. of the Act (42 USC 2232 b.), the ACRS is required to submit a public report on each application for a construction permit or an operating license for a facility (here the NS SAVANNAH). Accordingly, each report of the ACRS relating to the NS SAVANNAH was made part of the public record and is available in the Atomic Energy Commission's Public Document Room. The reports were also transmitted to NYS. I am informed that the documents ordered produced comprise internal

The Honorable John N. Mitchell -2-

Committee comments, discussion, advice and recommendations of independent scientific consultants with respect to matters relating to reactor safety, all preliminary to the final action by the Committee in the form of its report. These are documents which the Commission itself has never requested of the ACRS. The Commission has also, as a matter of policy, previously determined that, to the extent permitted by law, these files are immune to Commission subpoena in our mandatory administrative hearings required pursuant to Section 189 a. of the Act (42 USC 2240 b.).

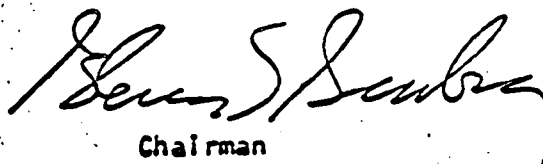
The Atomic Energy Commission strongly believes that the public availability of ACRS files might tend to discourage the members of the ACRS from the giving of complete, open and candid advice so essential to the proper and effective discharge of the statutory public health and safety responsibilities of both the ACRS and the Commission.

Additionally, the requested documents are not essential to the NYS case. Any changed requirements imposed on NYS were accomplished by the ACRS reports themselves. The ACRS documents which contain the background of these reports in no way change the requirements which the reports imposed. Thus, to withhold the ACRS material does not prejudice NYS.

I am informed that the material contained in ACRS files which seems to fall within the provisions of the Order consists of approximately 44 documents. Apart from documents available in the Commission's Public Document Room, we have already made available, on a voluntary basis, approximately 70 boxes of AEC files (each containing an average of 30-35 file folders - a total of approximately 100,000 documents). Such files included much material which, even though exempt under our regulations (10 CFR Part 9), was found upon specific review to be disclosable without the adverse consequences outlined above.

In view of these considerations, we respectfully request that you resist disclosure of any ACRS documents on the ground of executive privilege.

Sincerely,



Henry S. Sawyer
Chairman

suggesting that an "executive privilege" be invoked in denying the New York Shipbuilding Corporation access to confidential files of the ACRS. We also discussed the U.K.'s desire to seek gas centrifuge patent protection in third countries and its impact on the secrecy of our gas centrifuge information; we decided to obtain more information from the U.K. regarding the countries involved. We also discussed the matter of U.K. patent rights exchange with the U.S. in connection with the gas centrifuge problem and decided that a determination of this will have to await our second visit to the U.K. to view their progress in this field; this visit is in connection with determining how much information that the U.K. obtained from the U.S. is to be passed on to its tripartite partners (the Netherlands and West Germany).

In an adjudicatory session we approved a memorandum and order in the matter of the Consolidated Edison Company of New York, Inc. Indian Point Nuclear Generating Unit #3 that additional data regarding the iodine removal system would not be required but their staff would be requested to submit to us their calculations concerning this problem.

I attended the Christmas luncheon at the Metropolitan Club with Pete, Dave and Bill (Cobb). Among the people I met and to whom I introduced the boys were Lewis Strauss, Jim Reynolds (former Under Secretary of Labor), John Graham (former AEC Commissioner), Mr. George Fuller (our neighbor), Robert C. Watson (head of the AEC Patent Compensation Board) and Fred Warren (formerly of NUS but now to be an assistant on environment with the FPC).

Eric, Suki and I took a hike in Rock Creek Park, starting at Oregon and Nebraska Avenues, going north on the White Horse Trail to Cross Trail 2, then returning on the Black Horse Trail to Cross Trails 3 and 4 and our starting point.

Lynne, Bill, Pete, Dave, Steve, Eric, Dianne, Helen and I had Christmas Eve dinner together. I made a tape recording (using a poorly operating recorder) and Helen took movies. Following dinner we opened our Christmas presents in the traditional manner, and I took movies.

I sent President Lyndon Johnson a copy of the film of the ceremonies in which the 1966 Enrico Fermi Award was presented to Otto Hahn, Fritz Strassmann and Lise Meitner (copy of transmittal letter attached) for inclusion in the Johnson Library.

Thursday, December 25, 1969 - CHRISTMAS DAY

I spent a good part of the day working on the history of Met Lab Section C-1.

In the afternoon Eric, Scott Luria, Suki and I took a hike in Rock Creek Park, starting at Oregon and Nebraska Avenues, going north on the White Horse Trail to Cross Trail 2, then returning on the Black Horse Trail to Cross Trails 3 and 4 and our starting point. It had just begun to snow during the hike; the snow continued most of the night accumulating around 6 inches.

We again had all the family for dinner as well as Dianne's friend Amy Ballou.

11-24/69

ENCL. BY DOE
NOV 66

Dear President Johnson:

A motion picture has been produced of the ceremonies in which the 1966 Enrico Fermi Award was presented to Otto Hahn, Fritz Strassmann and Lise Meitner.

As this award was made during your administration, and as you were kind enough to send, through Dr. Hornig, your personal congratulations to the recipients, I thought you might like to have a print of this film for inclusion in the Johnson Library.

It is, therefore, a pleasure for me to send the film to you, under separate cover, with my best wishes to you and Mrs. Johnson.

Sincerely,

(Signed) Glenn T. Seaborg

Glenn T. Seaborg

The Honorable Lyndon B. Johnson
Johnson City, Texas 78636

SDS:HB

Chet and Lynn Joy arrived just before midnight, having driven up from North Carolina under very adverse weather conditions. They spent the night with us.

Friday, December 26, 1969 - D.C.

President Nixon gave all government employees the day off.

I worked a good part of the day on the Met Lab Section C-1 history.

In the afternoon Eric, Suki and I hiked in Rock Creek Park. We hiked in rather heavy snow starting at Oregon and Nebraska Avenues, going north on the White Horse Trail to Cross Trails 3 and 4 and back to our starting point.

For dinner we had Lynne, Bill, Pete, Dave, Steve, Eric, Dianne, Helen and me, Amy Ballou, Chet and Lynn Joy and Martin Sherwin. Pete had a chance to talk to Sherwin about the Department of History at Berkeley.

Saturday, December 27, 1969 - D.C.

Abbadessa called and said that he has heard from Fred Schuldt of the BOB and that he reported President Nixon's decisions following my budget appeal to him on December 23. The only items the President allowed were the restoration of one K reactor, to be operated singly (that is, not sequentially) and money for the Minuteman III warhead (\$5.3 million NOA and \$4.0 million for outlay). No increase was allowed for basic research, but we are directed to keep the CEA running within our present funds. I told Abbadessa that I would like to have him work with Paul McDaniel to find the \$1.2 million to keep the CEA running from the total for high energy physics and also to find a little more, perhaps \$1 million plus, so that we could reduce the number (now approximately 60) of university contracts that will have to be terminated.

I had lunch with Justin Bloom at the GJS Ranch.

In the afternoon I watched on TV the football game between the Minnesota Vikings and Los Angeles Rams for the Western Conference Championship of the National Football League. Minnesota won, 23-20, on the basis of an heroic performance by Joe Kapp.

I took a hike with Chet Joy, Eric and Suki in Rock Creek Park, starting at Oregon and Nebraska Avenues, going north on the White Horse Trail to Cross Trails 3 and 4 and back to our starting point.

Lynne and Bill, Chet and Lynn Joy, Pete, Dave, Steve, Eric, Dianne, Helen and I had dinner together. I tape recorded the dinner conversation.

Sunday, December 28, 1969 - D.C. - Boston

The Joys left for a visit to Cambridge about 9 a.m.

I worked a good deal of the day on the Met Lab Section C-1 history project.

I watched on TV the football game between the Cleveland Browns and the

Dallas Cowboys for the Eastern Conference Championship of the National Football League. Cleveland won, 38-14.

I flew to Boston on Northeast Flight No. 320, leaving National Airport about 7:30 p.m. and arriving about 8:30. I took a taxi to the Boston Sheraton Hotel.

As I was checking into the hotel I met Cyril Comar (of Cornell University). He told me that Tamplin is betting that the limits of the AEC Part 20 Regulations will be lowered by a factor of 10 within two years. Comar said he believes that this will happen within one year. I checked into room 2331, which had a marvelous view of the water and of MIT directly across the water. It was a beautiful, clear night.

Monday, December 29, 1969 - Boston - Washington

I had breakfast in the Coffee Shop in the Prudential Building which I reached by crossing through the enclosed passageway connecting it with the Sheraton Hotel.

I visited the AAAS exhibit in the adjoining Auditorium building, where I met Kathryn Lockridge and Bert Stanwood at the AEC exhibit, which was suffering from the disadvantage that the biology and medicine equipment and books had not yet arrived. I saw a piece of moon rock on public display.

At 11 a.m. I went to the Governor's suite (room 2908) for a meeting of the Directors of AAAS and Science Service to discuss the possible merger between the two organizations. Present, besides me, were Dael Wolfle, Athelstan Spilhaus, Wallace Brode, William Golden and Allen Astin. Leonard Rieser (of Dartmouth) joined us at noon. Spilhaus and I described our previous talks on this proposed plan. We agreed that the Board of Science Service might go out of business if the merger takes place. We described the advantages to both organizations and discussed the financial implications. The question was raised as to AAAS being able to take care of the present deficit in the Science Service budget. The suggestion was made that we might go to some foundation for help. We agreed that a joint committee would work on the details, including financial, of the merger; the committee will consist of William Golden (chairman), Ted Scripps, Ted Sherburne and Dael Wolfle. The committee will try to have a proposal ready by the time of the AAAS Board Meeting on March 7 and 8 (and the Science Service Board Meeting on April 25).

I had lunch with the group in the Governor's suite and then checked out of my room.

I saw Jim Conant and we talked about his forthcoming speech at the Symposium concerning the early work of Richards and students at Harvard on the atomic weights of radiogenetic leads. I told him that the Atomic Pioneer Award ceremony has been merely delayed and that this does not constitute any change of mind by the President.

We then went to the Independence East Ballroom where the Mendeleev Symposium was scheduled to be held. After Chairman Leo Schubert made some introductory remarks, he introduced Mr. Vadim P. Loginov (First

Secretary, USSR Embassy) and Alexander Ereskovski (Assistant to Ambassador Anatoliy F. Dobrynin) and called on Loginov to speak in Dobrynin's absence. Loginov gave a historical resume of Mendeleev's work, especially on the periodic table, which was entitled "Mendeleev and His Influence on Science." Schubert then introduced O. Theodor Benfey (Earlham College) who spoke on "Precursors and Cocursors of the Mendeleev Table" and James B. Conant who spoke on "Professor T. W. Richards and the Periodic Table."

Schubert then introduced me, and I spoke to a full hall audience of about 200 people on "The Transuranium Elements: Extension of the Periodic Table," a forty minute version of the talk I gave at the Welch Foundation Mendeleev Centennial in Houston last month.

Schubert then introduced Herman Feshbach (MIT) who spoke on "Periodic Properties of Nuclei and Elementary Particles."

Allan Labowitz and I then took a taxi to Logan Airport and caught Eastern Airlines Flight No. 875, which left Boston about 6:15 p.m.

During the meetings I saw much evidence of the anti-science attitude of the students present--largely from MIT, Harvard and Columbia. The students from Harvard and MIT had organized and ran a symposium entitled, "The Sorry State of Science - A Student Critique." They were quite intolerant and belligerent, essentially anti-intellectual in their attitudes. Labowitz told me that he had attended an organizing session for the symposium at which the students were blatantly deciding which speakers they should attack and organizing to do so. The criteria seemed to be related to the social or political opinions of the speakers they elected to attack.

We arrived at D.C. National Airport about 7:30 p.m.

Tuesday, December 30, 1969 - Germantown

Bob Hollingsworth called to say that the BOB notified Abbadessa that the President has approved keeping a minimum test readiness program and has allotted \$5 million to us. We have been asked to develop today what we can do with it. He was told that a similar amount is being given to DOD. (Bob called back later and said that Foster insisted on keeping their program at \$7 million so we were given another million. We are authorized to go up to as much as \$7 million but then would have to absorb the additional million in something else. I think we won't do this.)

I met with Keith Glennan to explore with him his interest in the position of U.S. Representative to the IAEA. We discussed the extent of the duties involved, the time necessary, the salary, etc. He seems to be interested in this possibility.

I called Elliot Richardson to propose Keith Glennan as a replacement for Harry Smyth. I told him that Glennan is a former AEC Commissioner (during the 1950's), a former president of Case Institute of Technology, a former administrator of NASA (before Jim Webb), a former president of Associated Universities, Inc., a strong Republican and a member of Lewis

Strauss's "Scientists and Engineers for Nixon." I told him I have talked to Glennan who sounds a little interested. Richardson asked if Glennan might be interested in another position, and I replied that he couldn't take a full time job because of his other commitments. I said I understood that the situation now is that Smyth will be replaced after the February meeting of the IAEA Board of Governors and that I hope it could drag on until June so that Smyth would not feel he is being kicked out. In this way he could attend the June meeting with his replacement Richardson said he is a little unclear as to how the matter stands. He said he thinks Glennan sounds very good and he thanked me for the information.

I met two of the stewards who are to be assigned to the plane that is taking us to Africa: Master Sergeant George Bryant and Sergeant Frank Oliver.

Robert Gros of PG&E called to pass on some information at the request of Sherm Sibley. He said that because they were upset over the very unfair Life article, as well as others, on atomic power, he arranged to meet with the senior editors of Time and Life and others. This meeting took place in New York two weeks ago and he said it was a very satisfactory and successful meeting. He spoke to high level people at considerable length about the unfairness of and the inaccuracies in their stories and told them they were performing a public disservice. He persuaded them that they should be thoroughly briefed on the true facts of the peaceful uses of the atom by experts. He said that Underwood and Jordan, who handle public relations for the electric power people, is going to set up such a briefing and he wondered whether we would want someone from the Commission to participate. He asked whom he should contact in this regard and I suggested Howard Brown. I thanked him for passing on this informaton.

I had lunch in the office with Julie Rubin and Justin Bloom.

I received a copy of a memorandum from Secretary of State William Rogers to the President (copy attached) recommending that he authorize steps toward an expansion of scientific and technical exchanges with Eastern Europe.

I received a letter from J. Robert Schaetzel (U.S. Representative to the European Communities) (copy attached) summarizing the decisions taken by the December 6 Council of Ministers concerning the Euratom program.

I received a letter from Budget Director Mayo (copy attached) urging that the Commission take appropriate steps to improve the management of the LMFBR program.

I received a memo from Harry S. Flemming (Special Assistant to the President) (copy attached) outlining procedures for hiring individuals in Non-Career positions. All prospective consultants must be submitted to his office for clearance and in the case of a non-Republican his clearance form must be accompanied by a written justification for his being hired.

I received a letter from Herman Pollack (copy without enclosure attached) advising that Allen Astin has been appointed as the American coordinator for the U.S.-French Scientific Cooperative Program.

THE SECRETARY OF STATE
WASHINGTON

S/S 19380

December 24, 1969

UNCL. BY DOE
1988

MEMORANDUM FOR THE PRESIDENT

Subject: Expansion of Scientific Exchanges
with Eastern Europe

Recommendation:

That you authorize steps toward an expansion of scientific and technical exchanges with Eastern Europe.

Approve _____ Disapprove _____

Discussion:

Following their recent visits to Eastern Europe in the wake of your visit to Romania, Chairman Seaborg and Dr. DuBridge both recommended an expansion in scientific and technical exchanges with Eastern Europe. Such expansion should lend valuable substance to our policies toward these countries.

As a function of our East-West exchanges, scientific and technical activities have been carried on for more than a decade. The Eastern Europeans are interested in these not only in support of industrialization and economic development, but in order to decrease dependence on the Soviet Union.

Consistent with export controls and other security considerations, scientific and technical exchanges are also in our interest. We gain from the Eastern European desire for autonomy and orientation toward the US in these fields. Exchanges in science and technology are also useful as a trade-off against cultural exchanges, in which we have a greater interest than the Eastern Europeans, and for the contacts they offer.

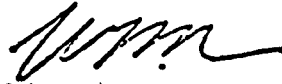
Beyond the expanded exchanges which Drs. Seaborg and DuBridge have proposed, a potentially important related possibility lies in projects of scientific cooperation between American and Eastern European institutions. Joint research could have not only scientific, but valuable political and psychological, results. In such fields as medicine, the environment, and pure science, where the Eastern European partner can make a contribution, fruitful research can contribute to cooperation between men and institutions across political barriers.

A particularly attractive possibility for expansion lies with Romania, where the climate for cooperation is highly favorable. With other countries, we would move in a manner consistent with opportunity and our general policy objectives. With the Soviet Union, exchanges are governed by existing formal agreements. However, we should bear in mind possible application to the Soviet Union of experience gained in cooperative research with Eastern Europe.

To give substance to these possibilities, we are prepared to undertake a coordinated effort, particularly with the National Science Foundation but including other science-related agencies of government, to explore avenues of new or expanded activity. We face at the outset the fact that no meaningful program can be funded out of existing or promised budget allocations. A reasonable beginning can be made during FY 1971 with about \$1 million in additional funds available for exchange visits related to cooperative research projects.

Following understandings which we expect to reach with NSF on a rational division of responsibility, we would each have to seek new fiscal authority to conduct activities which appear justified and to which we can agree with the Eastern European authorities.

If you agree, we will proceed along these lines.



William P. Rogers

UNITED STATES REPRESENTATIVE
TO THE
EUROPEAN COMMUNITIES

avenue des Arts, 23
1040 Brussels, Belgium
December 19, 1969

Honorable Glenn T. Seaborg
Chairman
U. S. Atomic Energy Commission
Washington, D. C. 20545

Dear Glenn:

The decisions taken by the December 6 Council of Ministers concerning the Euratom program have been summarized and reported by telegram (EC Brussels 7690). However, I feel these developments are potentially important enough to deserve further elaboration, particularly since they relate to some items discussed during our recent meeting in Washington.

The European Commission, as you know, had tried for some months, through a lengthy dialogue with the member states and proposals to the Council of Ministers, to obtain member state agreement on a pluriannual research program and associated budget. These efforts had been remarkably unsuccessful right up to the time of the Hague Summit Meeting on December 1-2. Even attempts by Dutch Economics Minister Leo De Block to promote a compromise program through a series of visits to the member state capitals just prior to the Summit resulted in little progress. However, De Block's efforts and, more important, Brandt's advocacy of a proposal for a "political guarantee" of the long term existence and improved organization of the Euratom Joint Research Center made by the dynamic new German Secretary of State for Science, Von Dohnanyi, did sensitize the heads of governments to the key issues involved. This undoubtedly permitted the subject to be dealt with more effectively at the Summit and follow-on Council meeting than would have otherwise been the case.

At the Summit most of the heads of governments made strong statements about the necessity of resolving the Euratom research problem promptly. In addition to Brandt's statement, most noteworthy was the tone of the

statement by Pompidou which encouraged one to believe that the French "veto" of a meaningful Euratom research program would be lifted, perhaps in exchange for a greater willingness by their partners to cooperate on advanced industrial projects, such as a large demonstration fast breeder and a European enrichment plant, of particular interest to the French.

More specifically the member states reaffirmed in their final communique their "determination to continue and intensify the Community's activities aimed at coordination and fostering research and industrial development in the leading growth sectors, notably by means of Community programmes, and to make the required funds available". In the same statement they agreed on "the need to make further efforts to formulate for the European Atomic Energy Community in the near future a research programme geared to the requirements of modern industrial management and enabling the most efficient use to be made of the Joint Research Centre".

There was the opportunity by the December 6 Council meeting to put to a test promptly the degree of substance behind these encouraging statements emanating from the Summit. The results justified the earlier optimism in that the Ministers agreed on an approach which assures the Commission of a new plurianual research program within two years. This two year transition period, or whatever portion thereof is required, will be used to elaborate the long-term program within a new set of guidelines adopted by the member states at the December 6 meeting. The more important provisions of this new approach are:

1. The Joint Research Center in the future will be free to conduct non-nuclear research work, particularly on any of those cooperative projects proposed by the six member states recently to nine other European countries. (These are the non-nuclear areas selected from the activities proposed some months ago by the Working Group on Scientific and Technical Research, more commonly referred to as the Aigrain Group.)
2. In addition the laboratories comprising the Joint Research Center will carry out special programs and tasks on a contract basis for both Euratom and non-member state governments or industries.
3. The management of the Center will be modified and strengthened with a view to ensuring better coordination of nuclear activities within the Community, greater flexibility in the formulation and implementation of Euratom's research programs and greater efficiency in the administration of the Center.

As evidence of the momentum achieved by these recent developments, meetings are scheduled for January to begin the implementation of these directives. At the same time, one must recognize it may take some time to reconcile the long standing divergent member state views on these issues.

The Council also agreed that by the end of 1970 it will undertake to make decisions necessary to promote the widest possible cooperation in the field of advanced reactors, and in particular fast reactors.

Another factor which could accelerate the development of the Euratom program is the decision by the member states to include Euratom on its list of several items that the members must agree upon before initiating negotiations with the U.K. on its entry into the Community. This would appear to work in favor of an early resolution of Euratom program issues, since these negotiations are expected to begin by July 1970, or soon thereafter.

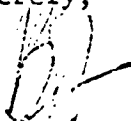
In short, the developments at the Hague and Council meetings are encouraging ones, providing evidence of genuine determination by the member states to develop a meaningful program. These developments are consistent with a desire for some months on the part of the German delegation in Brussels to breathe new and significant life into Euratom. Fortunately, the new government in Bonn has endorsed these views and backed them up with forceful pronouncements to that effect at both the Summit and in the December 6 Council. Perhaps the most pleasant surprise was the degree of French participation in this developing momentum to "relaunch" Euratom. The best evidence I can give of how significant was the decisiveness displayed on December 6 is President Rey's recent indication to me of how surprised he was by the extent of the decisions at the Council meeting.

It is true that the situation may not be entirely satisfactory from a U.S. point of view in that we are confronted with continued uncertainty for possibly another year or so as to the exact nature of the Community's research program and the level of effort in areas of greatest interest to the U.S., such as R&D on fast breeder reactors. USMEC decisions about future cooperation with the Community in certain areas perhaps cannot be deferred pending final clarification of Euratom's role in these areas. In such instances you may find it desirable, indeed necessary, to explore bilateral cooperative mechanisms directly with member state programs, in which case the Mission will do whatever it can to assist these efforts. However, I feel that if this course should be followed it is important, as I indicated during our recent meeting, that we retain our options for converting to multilateral cooperation if the Euratom research program,

once established, justifies such a conversion. The events of recent days enable us to hold open these options much more effectively. In fact, Euratom could, in view of these developments, very likely prevail upon the member states to provide for such options, much as we did in the 1963 period when negotiating fast reactor bilateral cooperation with Germany and France.

With best regards for an enjoyable holiday season.

Sincerely,



J. Robert Schaezel

cc: A. Katz, RPE, Dept. of State

EXECUTIVE OFFICE OF THE PRESIDENT

BUREAU OF THE BUDGET

WASHINGTON, D.C. 20503

ENCL. BY DOE
NOV 86

DEC 22 1969

Honorable Glenn T. Seaborg
Chairman, U.S. Atomic Energy
Commission
Washington, D.C. 20545

Dear Mr. Chairman:

When I met with Acting Chairman Ramey and Commissioners Johnson, Thompson, and Larson on November 17 to discuss AEC's appeal on the FY 1971 budget, we raised a question regarding the prospects for improving the management of the Liquid Metal Fast Breeder Reactor (LMFBR) program, particularly as regards the situation at Argonne National Laboratory and Pacific Northwest Laboratory. The same question was raised by Bureau staff during the preceding budget review.

Our questions were based upon information gathered during field trips and our on-going review of the reactor development program, as well as certain observations contained in the report of the Joint Committee on Atomic Energy on AEC's, 1970 authorizing bill. We were encouraged to learn at the November 17 meeting that the Commission had this problem in hand and was moving to correct it.

I now understand that Chairman Holifield of the Joint Committee on Atomic Energy in a speech delivered in San Francisco on December 3 announced an intention to set up a "blue ribbon ad hoc committee" to investigate the progress of the LMFBR program and that he criticized the performance of the AEC laboratories on development of the LMFBR.

As I indicated at the November 17 meeting, Chairman Holifield told me in a recent conversation that he considered it essential that the AEC laboratories perform effectively on development projects if they are to receive continuing support for basic research, and I think that there is much merit in that point of view. As you know, the Government has an extremely large financial commitment to the success of the LMFBR program.

With respect to the management of the program, I would strongly urge that you take appropriate steps further to improve the situation, particularly at the two AEC laboratories involved. I see this as a necessary move to improve the quality of the program, to get better utilization of the funds which are being appropriated, and to maintain the high standing of the AEC as it proceeds with this, its largest and most complex and costly civilian development program.

Sincerely,

A handwritten signature in cursive script that reads "Robert P. Mayo". The signature is written in dark ink and is positioned to the right of the typed name.

Robert P. Mayo
Director

THE WHITE HOUSE

WASHINGTON

December 23, 1969


MEMORANDUM FOR

Honorable Glen T. Seaborg
Chairman
Atomic Energy Commission

I would appreciate your discussing the contents of this memorandum with your staff and with all others who have authority to employ individuals in Non-Career positions. Effective immediately, the following points will apply to the hiring procedure:

1. All persons you intend to employ in consultant capacities must be first submitted to this office for clearance action.
2. When a non-Republican is submitted to clearance, his clearance form must be accompanied by a written justification for his being hired.
3. All involved should be reminded that public discussion (i. e., newspaper stories) of an individual's candidacy in advance of his clearance may well jeopardize such clearance.
4. An individual is never officially hired until he has been given both White House and security clearance.

Your assistance in communicating the above points to those with whom you work will be appreciated.


Harry S. Flemming
Special Assistant
to the President



DEPARTMENT OF STATE

Washington, D.C. 20520

ENCL. BY DOE
NOV 86

December 23, 1969

Dear Glenn:

The recent visit of Minister Ortoli augurs well for U.S.-French scientific and technical cooperation. The high marks given the visit by Minister Ortoli were in part due to the efforts of your agency. I am hopeful that this promising beginning can be translated into an expanded program of cooperation to our mutual advantage.

You may recall that at the November meeting of the Federal Council for Science and Technology it was reported that Dr. Allen Astin, former Director of the National Bureau of Standards, would be appointed as the American coordinator for the U.S.-French program. This has been done and a copy of Dr. Astin's terms of reference is enclosed.

The French have appointed Mr. Pierre Laurent, Director General for Cultural and Scientific Relations and Technical Assistance for Development at the Foreign Ministry, and Dr. Pierre Aigrain, Delegate-General for Scientific and Technological Research, as Dr. Astin's counterparts.

The role of the U.S. and French coordinators is aptly summarized in the joint statement of Dr. DuBridge and Minister Ortoli. "The assignment of this group is to provide a channel for continuing liaison, to establish a flow of information on the status and development of cooperative arrangements, and to pursue the search for new scientific and technical areas of mutual interest."

Dr. Glenn T. Seaborg,
Chairman,
U.S. Atomic Energy Commission,
Washington, D.C. 20545.

Although it is likely that only a few of your programs will be appropriate for this cooperative program, I know that Dr. Astin would appreciate discussing your activities from time to time in order to maintain a proper perspective on U.S.-French relations. In the meantime he would welcome any suggestions or information which would facilitate his role. He has an office here in SCI and mail can be addressed to his attention. While he will not be in the office full time, he can be reached through Dr. Herman Chinn at 632-1431.

Sincerely,



Herman Pollack
Director
International Scientific and
Technological Affairs

Enclosure

I received a copy of a memorandum by Robert Bauer of the AEC Controller's office (copy attached) noting the actions taken on the FY 1971 budget items appealed to the President. I received a copy of a memorandum by Vic Corso of the AEC Controller's office (copy attached) advising that the President has decided to restore the atmospheric test readiness program.

I sent my biweekly status report to the White House today (copy attached).

Dave's friends, Don Schurmann and Jim Saunders, joined us for a Hot Shoppes carryout dinner at home; Helen had a cold so didn't prepare dinner.

After dinner Chet and Lynn Joy returned from their trip to Cambridge and spent the night with us. Also, Lynne's and Bill's and Pete's friend, Ben Orlove, spent the night with us.

Wednesday, December 31, 1969 - D.C.

I worked in the office all day. Julie Rubin, Justin Bloom and I had lunch in the Commission dining room.

I received a copy of the report of the U.S. Delegation to the Preliminary Strategic Arms Limitation Talks which was sent to the President by Gerard Smith (copy attached).

I received a letter from Congressman George Mahon (Chairman of the House Committee on Appropriations) advising that Eugene B. Wilhelm (Staff Assistant on the Subcommittee on Public Works) will be traveling in the U.S. during January to review activities of the Commission.

We had fifteen people at our home to dinner: our entire family, including Bill, Ben Orlove, the Joys, Brendan and Joe Canary and Jody Cobb. Larry Novey dropped in after dinner.

Bill and Lynne went to a party at the Neumanns' in Virginia. Pete, Dave, Steve, Ben, Jody and Larry went to a party at Marshall Curtis's. Dave (who had returned from the party), Eric, Dianne, Brendan, Joe, the Joys, Harvey Washington, Scott Luria, Helen and I saw the New Year in by watching Guy Lombardo on TV and drinking a toast of apple cider.

Eric and Joe spent the night with Scott Luria, while Brendan, the Joys, Ben, Jody and Larry spent the night with us.



UNITED STATES
 ATOMIC ENERGY COMMISSION
 WASHINGTON, D.C. 20545

UNCL. BY DOE
 NOV 98

December 30, 1969

Files

RESTORATION OF ITEMS APPEALED TO THE PRESIDENT -- FY 1971 BUDGET

On Saturday morning, December 27, 1969, Mr. F. C. Schultdt of the Bureau of the Budget called to inform me of the actions taken on the FY 1971 Budget items appealed to the President. The Commission's appeal and the Presidential restorations are set forth in the following table:

Item	(In Millions)			
	Amounts Appealed		Amounts Restored	
	NOA	Outlays	NOA	Outlays
Cascade Improvement Prog..	\$ 14.8	\$ 3.0	\$ -0-	\$ -0-
K Reactors	42.0	30.4	23.0	17.2
Weapons Production	28.8	17.7	5.3	4.0
Atmospheric Test Readiness	11.3	8.5	-0-	-0-
Basic Research				
Physical Research	13.4	10.0	-0-	-0-
Biology and Medicine ...	2.5	1.9	-0-	-0-
Staffing	1.3	1.3	-0-	-0-
Total	<u>\$114.1</u>	<u>\$ 72.8</u>	<u>\$ 28.3</u>	<u>\$ 21.2</u>

These allowances, when added to the amounts previously approved, result in the following appropriation totals:

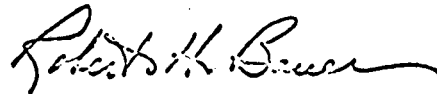
	(In Millions)	
	NOA	Outlays
Operating Expenses	\$2,092.6	\$2,012.4
Plant and Capital Equipment	<u>362.8</u>	<u>482.6</u>
Total	\$2,455.4	\$2,495.0

These totals represent an increase over FY 1970 ^{a/} in both NOA (\$227.0 million) and outlays (\$34.4 million).

^{a/} assumes \$10.7 million supplemental for pay raise.

In commenting on certain of the final allowances, Mr. Schuldt pointed out that:

1. In the absence of any increase for the CIP, the AEC still would be able to pursue A/E on the production support facilities (\$5.0 million previously allowed for this purpose).
2. The restoration of \$17.2 million in costs (outlays) for the K Reactors reflected a decision to shutdown only one reactor rather than two and did not represent sequential operation.
3. The weapons production restoration represented provision for additional Minuteman III warheads. All other weapons program appeal items were disallowed.
4. It was recognized that the failure to restore funds to the Physical Research Program would require serious cutbacks in on-going programs including the shutdown of major research facilities. In this connection the President was fully aware of the necessity to close the Princeton-Pennsylvania Accelerator but requested that AEC not shutdown the Cambridge Electron Accelerator in FY 1971.



Robert H. Bauer
Deputy Assistant Controller
for Budgets

cc: Chairman Seaborg (2) ←
Commissioner Ramey
Commissioner Johnson
Commissioner Thompson
Commissioner Larson
General Manager (2)
W. B. McCool (2)
E. J. Bloch, DGM
H. C. Brown, AGM
D. C. Kull, EAGM
G. F. Quinn, AGMPP
J. A. Erlewine, AGMO
Maj. Gen. E. B. Giller, AGMMA
Dr. G. M. Kavanagh, AGMR
R. W. A. LeGassie, AGMPA
Dr. S. G. English, AGMRD
W. H. Slaton, PAR
J. P. Abbadessa, Controller



UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

UNCL. BY DOE
NOV 86

December 30, 1969

Files

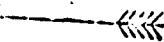
PRESIDENTIAL ALLOWANCE ON ATMOSPHERIC TEST READINESS PROGRAM

Mr. Fred Schuldt called to inform me that the President had further considered the budget for the Atmospheric Test Readiness Program and as a result the total AEC budget was being increased by \$8.0 million in NOA and \$6.0 million in outlays (Weapons Program costs).

The Commission would have the option of either applying the additional \$6.0 million of Weapons Program costs to the Atmospheric Test Readiness Activity or if it so desired to apply a total of \$7.0 million to Atmospheric Test Readiness with an offset of \$1.0 million made by a reduction in the Underground Testing Program.

As a result of this budget decision the new budget totals for the AEC amount to \$2,463.4 million in NOA and \$2,501.0 million in outlays.

Victor Corso
Assistant Controller
for Budgets

cc: Chairman Seaborg (2) 
Commissioner Ramey
Commissioner Johnson
Commissioner Thompson
Commissioner Larson
General Manager (2)
W. B. McCool (2)
E. J. Bloch, DGM
H. C. Brown, AGM
D. C. Kull, EAGM
G. F. Quinn, AGMPP
J. A. Erlewine, AGMO
Maj. Gen. E. B. Giller, AGMA
Dr. G. M. Kavanagh, AGMR
R. W. A. LeGassie, AGMPA
Dr. S. G. English, AGMRD
W. H. Slaton, PAR
J. P. Abbadessa, Controller

AEC BIENNIAL STATUS REPORT FOR DECEMBER 30, 1969

1. Chairman Seaborg will visit eight foreign countries between January 3 and January 18. At the request of Secretary of State Rogers, he will visit Morocco, Tunisia, Ethiopia, Kenya, Congo (Kinshasa), and Ghana. The primary purpose of his visit to these six countries will be to stimulate the professional interest of scientific groups and to give public officials a better appreciation of the interrelations of science and public policy. The Chairman will also visit Madrid, Spain, to address the Royal Academy of Sciences and the Junta de Energia Nuclear, Bonn, Germany, to lecture at the University of Mainz, and Bonn, Germany, to meet Ambassador Buss and West German Science Minister Lausink.
2. A rule barring construction of big fossil power plants in Los Angeles was recently adopted by the City's board of supervisors. This rule, which could be overturned by a local government hearing board or the courts, would prevent the Los Angeles Department of Water and Power from building the oil or gas-fired plant that it hopes to have in operation by 1972 at a coastal site south of Los Angeles.
3. An offer to build nonutility nuclear-powered submarine oil tankers has been made by General Dynamics Corporation to five United States oil companies. The tankers would move oil under the Arctic ice from Alaska's North Slope to ice-free ports in the North Atlantic where it would be transferred to conventional tankers.
4. The AEC-sponsored Holtan Salt Reactor Experiment at the Oak Ridge, Tennessee facility was terminated on December 12 because of budgetary limitations. The Holtan Salt Reactor Program, however, will continue at Oak Ridge. The Experiment, during four years of operations, successfully demonstrated the feasibility of a high temperature molten fuel reactor. The program will now put increased emphasis on developing the technology for the cooling driver reactors, which will produce more fissionable material than they will consume and thus tremendously increase the world's available supply of energy.
5. The Council of State Governments endorsed three AEC positions on Worker's Compensation at its meeting in November at Lexington, Kentucky. The Council adopted a resolution approving in principle the efforts of the

Commission to establish a central repository of occupational radiation exposure information. It also selected two AEC workmen's compensation standards for special attention this year by recommending that all workmen's compensation acts should provide coverage for all employees who sustain injuries as a result of exposure to ionizing radiation in their employment as well as full coverage for medical services necessary to treating such injuries.

6. An agreement on a joint international project to enrich uranium by the ultracentrifuge method has been reached by the British, Dutch, and German Governments. The agreement provides for two ultracentrifuge plants--one in England and another in The Netherlands.
7. Another one-year interim program for duration was decreed by the Council of the European Communities, after by-passing action on a multiyear program. The interim program calls for a budget slightly higher than that for 1969, does away with any plans to reduce the staff of the Joint Research Center establishments, and provides for an automatic extension of the interim program for another year if agreement is not reached by the end of 1970.
8. Another significant development recently occurred in AEC's program to attract private industry to those communities dependent on AEC's Hanford Works in the State of Washington. Jersey Nuclear Company (a Standard Oil of New Jersey subsidiary) agreed to purchase 160 acres of land near Richland on which to construct a \$4.5 million nuclear fuel fabrication facility that is expected to employ 60 to 200 people.
9. Two recent events involving AEC-developed systems for Nuclear Auxiliary Power (SNAP), one in space and the other at the bottom of the ocean, continue to demonstrate the atom's versatility and durability. The SNAP-27 nuclear generator on the moon continues to operate as designed. Since being put there on November 19, it has powered the Apollo-12 experimental package with more than 70 watts of electricity through the temperature extremes of -291° F to +283° F during the lunar day-and-night cycle of 28 days. (A similar SNAP-27 will power instruments the Apollo-13 astronauts will place on the moon next March.) Another SNAP generator, the SNAP-7B, that was being used to power an underwater beacon, has been brought up by the Navy from a 19,000-foot

ocean depth about 75 miles from Bermuda where it was implanted in 1964. This nuclear-powered beacon served as both a deep-sea acoustical navigation device and a signal source for studies measuring long-distance sound propagation. After more than five years of service, the SNAP-7E continues to operate, producing electricity at approximately 4.7 watts.

10. NASA has asked AEC to provide nuclear-powered heaters to be used on the Pioneer spacecraft for Jupiter fly-by missions. The heaters would use radioisotopes to prevent freezing of the thruster system that will be essential to controlling the attitude of the spacecraft on both the Pioneer F and G fly-bys. Altogether, each of the two spacecraft will probably have eleven heaters, with each heater generating one watt.

NOT DECLASSIFIABLE

14-0101
OFFICE DIARY
GLENN T. SEABORG
Chr USAEC, 1961-72
FOLDER-PAGE 108 279

DOCUMENT TITLE Memo for the President (12-27-69) enclosing
Report of the U.S. Delegation to the
preliminary SALT talks
0911909

This document has been determined to be NOT DECLASSIFIABLE and has been removed from this folder.

C. Scrogger
Name

11-24-87
Date

Reference letter DOS, Burke to
DOE, OC Silbert dated 1-16-87

NOT DECLASSIFIABLE

12-11-01
OFFICE DIARY
GLENN T. SEABORG
Chr USAEC, 1961-72
FOLDER-PAGE/08290-108292

DOCUMENT TITLE Report of the U.S. Delegation to
the preliminary SALT talks
12-29-69 (attachment to 0911909)
0911910

This document has been determined to be NOT DECLASSIFIABLE and has been removed from this folder.

E. Seeger
Name

11-24-87
Date

Reference letter DoS, Burke to
DOE, OC Gilbert dated 1-16-87

LAWRENCE BERKELEY LABORATORY
TECHNICAL INFORMATION DEPARTMENT
1 CYCLOTRON ROAD
BERKELEY, CALIFORNIA 94720