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JOURNAL OF
GLENN T. SEABORG

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

January 1, 1963 - June 30, 1963

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PUB-625

JOURNAL
OF
GLENN T. SEABORG
Chairman of the U.S. Atomic Energy Commission
1961 - 1971

VOLUME 5

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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.

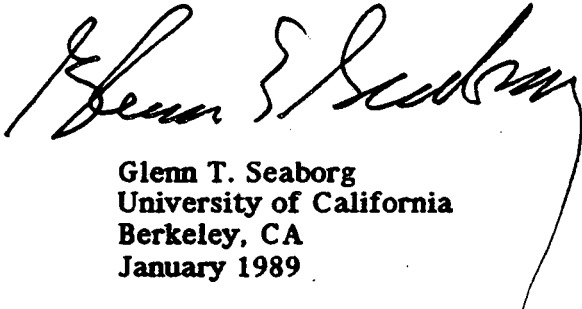
When I returned to the University of California, Berkeley, in November 1971, a couple of months after my tenure as Chairman of the Atomic Energy Commission, the two copies of my journal, which I presumed had been cleared, were sent there. Copy #1 eventually came to my Lawrence Berkeley Laboratory office 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.

Tuesday, January 1, 1963 - NEW YEAR'S DAY

I read AEC papers and worked on the AEC Annual Report for 1962 to Congress.

Wednesday, January 2, 1963 - Germantown

At 9:50 a.m. I presided over Information Meeting 228 (notes attached). We discussed and, for later sending, revised the joint Gilpatric-Seaborg letter to President Kennedy on the 1965 weapons' goal, made revisions in the 1964 goal, discussed implications for 1966 and 1967 budgetary implications (as follow-up of the plan AEC insisted upon and which received the President's approval for last spring) of the 1965 weapons' building goal, which reflects decisions made at the BOB meeting of December 20, 1962.

I discussed with the staff my suggested revisions for the Annual Report.

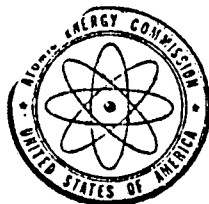
I had lunch in the cafeteria with Joseph Lieberman (Assistant Director for Nuclear Safety Division of Reactor Development) and Howard Hembree (Chief, Engineering & Test Branch, DRD) to discuss safety tests and clearance procedures for aerospace SNAP devices. They feel the need of an interagency committee to pass on safety and that the ACRS should not play this role because there are too many agencies involved.

I got a call from Claude Desautels (Larry O'Brien's assistant) saying that President Kennedy wants me to draft an answer, on a high priority basis, to a letter he received from Holifield recommending a high state of preparedness for atmospheric nuclear testing.

I called Carl Kaysen telling him that I have been asked to prepare a reply in draft to Holifield's December 24, 1962, letter to the President (copy attached). I told him Holifield recommends that the JTF-8 be maintained in readiness state so that it can be rapidly expanded, that our test facilities, including the two Pacific sites, be maintained in a state of readiness to insure their immediate availability, and asks that AEC, DOD and our laboratories be instructed to plan and prepare for a follow-on series so that if it is so decided we can proceed with such a series within 1963. Kaysen said to avoid the issue for the coming year. He said to try to be as specific as we can with respect to the tests without agreeing that Holifield should tell us how to run this program. We should say that AEC and DOD are, in fact, preparing to be able to test as expeditiously as now appears useful. If circumstances change that schedule, we would be prepared for that also. Then, we should list some of the general steps taken.

He said he doesn't know what Rusk has done about the JTF-8, but he thinks our answer should be that we are discussing the matter with a view towards economy and efficiency. He suggested we point out the scientists of our laboratories and the scientists of DOD are in agreement and that it takes "some time" to digest the information from the last series of tests and specific tests should not be planned until that information is assimilated. He said he will tell Desautels we have discussed this. Kaysen asked that I talk to Gilpatric, send him a copy of the letter, and then discuss how to answer it. Finally, he said there should be unified answers from our point of view and that of the President.

I called Gilpatric about Holifield's letter to the President and said that we are trying to come up with some language that is reasonably responsive but not too committal. I said that I need DOD's assistance with one particular point of the letter, wherein Holifield recommended that the JTF-8 be maintained in readiness state so that it can be expanded rapidly. He said he will check it out with Jerry Johnson. I asked him about the status of the briefing for the



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

UNCL. BY DOE
NOV 86

COPY NO. 75

January 2, 1963

INFORMATION MEETING 228

9:50 a.m., Wednesday, January 2, 1963 - Chairman's Office, A-457

1. Commission's Annual Report for 1962

For discussion at the Commission Meeting Thursday, January 3. (Secy)

The Chairman requested (a) Commissioner Haworth review the sections on weapons and fallout, and (b) that White House staff be informed of the information in the section on fallout. (Dr. Haworth subsequently said Dr. Wiesner wished to review the latter section.) (GM)

2. January 3 Meeting of the Committee to Review STORAX III

The meeting is scheduled for 4 p.m. Dr. Haworth will attend. Dr. Haworth added that Mr. Kaysen hoped the committee could move quickly on consideration of this program, but noted that planning must necessarily go forward on January events.

3. Joint AEC-DOD Letter to the President re FY 64 - 65 Weapons Requirements

The proposed joint letter to the President and the letter to Secretary Gilpatric are to be revised in accordance with the discussion and prepared for the Chairman's signature, (Henderson/Betts)

4. Chairman's December 31, 1962 Meeting with Ambassador Smyth

5. Planning Calendar

The Chairman commented he had noted several items which require early Commission action, and the General Manager noted they would be included in the upcoming issue of the planning calendar. (Secy)

6. PSAC-GAC Committee on High Energy Physics

In response to Dr. Wilson's query re the status of the MURA project, the Chairman noted this is among the matters under consideration by the committee.

7. Ad Hoc Committee on Nuclear Reactors for Desalinization Project

Dr. Wilson commented briefly on his review of the report.

8. AEC Representation on Working Groups for Consideration of Agreements with the U.K. and France

Mr. Ramey discussed briefly his conversation with Mr. Jeffrey Kitchen of the State Department re the composition of the respective working groups, and the General Manager reported Mr. Wells will be designated as the AEC representative with appropriate technical support. The Commissioners suggested the desirability of additional representation, if appropriate. (GM)

9. U.S./U.K. Nassau Agreement

The Commissioners agreed the Chairman should discuss the agreement with the Secretary of State at an appropriate time. (Henderson)

10. Atomics International Briefing Today on the SNAP Program

The Chairman said he had expressed no objection to scheduling the briefing and would attend if possible.

11. AEC Contractor Liability for Use Taxes

Mr. Hennessey reported transmittal of a letter to the Department of Justice requesting filing of an appeal to the Supreme Court, Project, the this is among the first steps in the litigation by the

12. AEC Right to Terminate WPPSS Contract Due to Breach of Anti-Discrimination Order

Mr. Hennessey reported briefly on the AEC-Interior-WPPSS discussion of this problem.

13. Bid Procedure for Power at Los Alamos

The General Manager reported that Senator Anderson is in agreement with AEC's proposed course of action.

14. Schedule of Joint Committee Members

The Chairman requested information on the return of members of the Joint Committee. (Henderson)

PRESENT

DISTRIBUTION

Dr. Seaborg	Gen. Luedecke	Commissioners
Dr. Wilson	Mr. Henderson	General Manager
Dr. Haworth	Mr. Hennessey	General Counsel
Mr. Ramey	Mr. McCool	Secretary
Mr. Palfrey		

Secretary reported briefly on the AEC-Anderson-WPPSS discussion problems.

Standard for Power at Los Alamos **W. B. McCool**
Secretary

General Manager reported that Senator Anderson is in agreement with the proposed course of action.

OLDFIELD, CALIF.
CHAIRMAN

ELVIN FANCE, ILL.
WAYNE N. ASPINALL, COLO.
ALBERT THOMAS, TEX.
THOMAS B. MORRIS, N. MEIX.
JAMES E. VAN ZANDT, PA.
CRAIG HOSENER, CALIF.
WILLIAM H. BATES, MASS.
JACK WESTLAND, WASH.
JOHN T. CONWAY, EXECUTIVE DIRECTOR

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JAN - 2 1963

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RICHARD E. RUSSELL, GA.
CLINTON P. ANDERSON, N. MEIX.
ALBERT BOWE, TENN.
HENRY M. JACKSON, WASH.
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GEORGE B. AIKEN, VT.
WALLACE F. BENNETT, UTAH
EVERETT MCGRIMLEY DIRKSEN, ILL.

Congress of the United States

JOINT COMMITTEE ON ATOMIC ENERGY

December 24, 1962

Classified

L. BY DOE
NOV 88

Dear Mr. President:

Our recent series of atmospheric nuclear tests has raised a number of important questions relating to weapon design development and weapon effects, the answers to which may be of great importance to the national defense. Moreover, analyses of the recent Soviet test series emphasize the need for continued activity by the United States in advancing design and development knowledge.

Notwithstanding our sincere effort to reach agreement with the Soviet Union on an effective enforceable test ban treaty little progress has been made. As the United States continues to negotiate with the USSR on the overall problems of disarmament and arms control and particularly with regard to the cessation of nuclear weapons tests, it would appear prudent to keep in mind the history of our negotiations from October 1958 to September 1961. Despite continuing indications of deliberate Soviet stalling, the United States was caught off guard when the test cessation period was abruptly ended by the USSR.

The ambitious test series undertaken by the Soviets, which included more than forty nuclear detonations, indicates significant advances in weapon technology. That series alone demonstrated that extensive clandestine preparations had been under way for many months. We were unable to respond rapidly following the initiation of the Soviet tests because our own capabilities had deteriorated materially during the moratorium. Seven months of intensive effort, at great cost to our energy and manpower, were required in order to permit the United States to begin its own test series.

In view of the adamant refusal by the Soviet Union to yield on the critical question of international inspection, we believe it imperative for the United States to maintain its testing capabilities and to conduct those tests necessary to advance our weapons development. Our own plans must be postulated on the assumption that the USSR is vigorously advancing the art of weapons technology and planning further nuclear testing. In this regard, we fully concur with the statement made by Secretary Rusk to the Geneva Conference on Friday, March 23, 1962:

"We do not intend to be caught again as we were in the autumn of 1961, and there is no reason why we should have to be caught again by a unilateral Soviet decision to resume nuclear weapons tests. This is a risk to national and international security which the United States cannot and will not take."

Our current capability to efficiently and quickly conduct a test program has been built up at great expense in human and material resources. We respectfully urge that the following steps be taken to assure that this capability will not be dissipated:

1. The current Joint Task Force should retain a basic organizational structure which could be rapidly expanded if developments indicate a requirement for further tests.

2. Our test facilities, including Christmas and Johnston Islands, should be maintained in a state of readiness to assure their current availability without costly and time-consuming efforts for their reactivation.

3. The Atomic Energy Commission, the Defense Department, and our nuclear weapon laboratories should be instructed to plan and prepare for a follow-on series of tests and, pending subsequent instructions to the contrary, proceed as though we will conduct such tests within the coming year.

If the above measures are taken, the United States will be better prepared for the immediate resumption of atmospheric tests, if dictated by changing international conditions. Although some expenditure of additional funds will be required, to do less would invite a repetition of past history to the detriment of our national security.

As always, please be assured that we, and our colleagues on the Joint Committee, desire to do all within our power to assist you in providing the military strength necessary for the protection of the United States and the free world.

Sincerely yours,


Chet Holifield, Chairman

The President
The White House

JCAE. He replied that they are not ready to give a briefing because there are still unanswered questions, particularly as to the exact proposals to be made to the British and the French.

Thursday, January 3, 1963 - Germantown

At 10 a.m. I presided over Commission Meeting 1905 (action summary attached). We discussed a letter to Secretary McNamara pointing out the implications of the small BOB PLUTO budget for FY 1964, i.e., dropping of contractors, layoffs, transfer of Radiation Laboratory people soon, and that Harold Brown's letters (copies attached) to AEC of November 19th and December 20th, are not consistent with BOB action (supposedly based on a McNamara-Bell conversation).

I had lunch in the cafeteria with Bill Slaton (Director, Division of Plans and Reports), Chris Henderson and Arnie Fritsch to discuss the 1962 Annual Report and plans for the next Annual Report. Later in the afternoon I visited Slaton's Division to meet his people.

Trouble has developed with WPPSS bond saleability because of an anti-discrimination clause.

At 2:40 p.m. I heard a briefing by Special Agents Emory M. Gregg and Joseph M. Fitzgerald on recent espionage cases.

Ramey told me that Bundy called him on the NATO matter and indicated to him that the Joint Committee staff has apparently been making some approaches to the State Department, and others, to get information on the Nassau meeting. Bundy talked to the President and the President said he will personally give information on the background of the Nassau meeting to some of the leading members of the Joint Committee. The implication this carries is that it would be judicious if the Commission held off on anything with the Joint Committee. Ramey said he told Bundy we will do so, and implied that the Commission has not been briefed much either. Ramey also said he told Bundy that in the field of cooperation, especially with the French, he thinks nuclear safety (permissive links) can be pursued without giving away restricted data.

I sent a belated bi-weekly status report to the President today (copy attached).

Friday, January 4, 1963 - Germantown

At 10 a.m. I presided over Information Meeting 229 (notes attached). We approved and I signed the final version of the Seaborg-Gilpatric letter to the President on the 1965 weapons building program (including the 1964 modifications and the 1966 and 1967 implications) as modified by the BOB December 20th meeting. The Commission discussed a proposed letter from Alexis Johnson to Bundy asking the President to go ahead with briefing the non-military NATO top people on nuclear weapons matters despite AEC's non-concurrence (expressed in my November letter to the White House).

We decided not to protest if this is the only briefing made. We discussed a letter from the President dated December 26, 1962, disapproving dispersal of nuclear weapons requested by DOD last June, but approving the transfer by AEC to DOD of the weapons requested at that time. We also discussed a letter dated December 28th, from Harold Brown, requesting the AEC to develop low weight tactical weapons in the low yield range to replace the standard high weight, low yield end of spectrum weapon--something we have required for a long time so that airplanes needn't carry unnecessary weight when delivering low yield weapons of the constant weight type.

UNITED STATES GOVERNMENT

Memorandum

UNCL. BY DC
NOV 86

TO : A. R. Luedecke, General Manager

DATE: January 30 1963

Approved A. R. Luedecke
A. R. Luedecke

FROM : W. B. McCool, Secretary *W. B. McCool*

Date 1/4/63

SUBJECT: ACTION SUMMARY OF MEETING 1905, THURSDAY, JANUARY 3, 1963, 10:10 A.M.
ROOM A-410, GERMANTOWN, MARYLAND

SECY: PAL

Commission Business

1. Briefing on Weather Satellites

The Commission requested consideration be given to AEC requirements for weather satellites. (Betts)

2. Excerpt of Proposed Letter from Secretary Udall to Hobart Taylor

Noted.

The Chairman requested the Department of Interior be advised that the Commission has some concern regarding this approach but interposes no objection to transmittal of the letter. (Hennessey)

3. Funding of the Pluto Program

You said you would notify Mr. Harold Brown on the matter. *done*

The Commission requested appropriate revisions in the draft letters to Secretary McNamara and Congressman Holifield, and the draft press release. (Ink-Clark-Pittman)

The Commission also requested review of the proposed letter to Dr. McMillan, LRL, at the Information Meeting on Monday, January 7. (Pittman-Secretary)

You said you would inform the procurement contractor that the matter is under current consideration. *done*

4. AEC 988/146 - U.S.-U.K. Exchange of Special Nuclear Material

Approved, as revised. (Wells)

The Commission requested:

a. Paragraph 9b. be revised to include the flexibility to alter the quantities of material exchanged without altering the ratio; and

b. Paragraph 9 c be revised to reflect the probability that the U.K. will desire flexibility in its use of the U-235 received under the Agreement.

(Wells)

Commissioner Ramey requested review of the General Accounting Office opinion on the barter arrangements.

(Wells-Abbadessa)

5. AEC 720/147 - Uranium Enrichment Service

Deferred.

The Commission requested AEC 720/147 be revised to include a statement noting there would be no change in the application of U.S. safeguards.

Commissioner Palfrey suggested the Commission consider the establishment of a policy in the event private ownership legislation is not passed. (Fine)

Commissioner Haworth requested a study of the implications of varying degrees of enrichment on the AEC charge for tails. (Fine)

6. Annual Report to Congress

Approved, as revised. (Slaton)

The Chairman requested inclusion of the President's visit to the Lawrence Radiation Laboratory and photographs of the Lawrence Award ceremony. (Slaton)

JAN 3 1963

GT FILE

JAN 3 1963

ENCL. BY DOR
NOV 86

Dear Mr. McNamara:

The President's Fiscal Year 1964 budget includes \$9.7 million for the Atomic Energy Commission's PLUTO (nuclear ramjet) program and represents a substantial reduction from the \$26.1 million requested by the Commission on the basis of our interpretation of Dr. Brown's letter of November 19, 1962. Because the President's budget permits only the continuation of the Tory IIC reactor experiment, we must now instruct the Lawrence Radiation Laboratory to begin immediate termination of the non-Tory IIC tasks being conducted at the Laboratory. This means that we will not continue the program of reactor design and fuel element technology improvement or of studies of an optimum reactor for sea-based missile applications requested in Dr. Brown's letter.

It was our understanding that this reduction by the Bureau of the Budget reflected a subsequent reappraisal of the extent of the Department of Defense's interest in PLUTO. The Bureau of the Budget's reduction is not in consonance with Department of Defense guidance provided in Dr. Brown's letter of December 20, which was seemingly written for the purpose of reaffirming his November 19, 1962 guidance.

I think you should also be aware that with the President's Fiscal Year 1964 budget providing only for completion of the Tory IIC experiment and as a result of the concomitant rescoping of the Livermore program, we will not be in a position to respond promptly and efficiently to the Department of Defense should a decision be made next year to develop a nuclear ramjet because:

- a. The 600 direct personnel presently assigned to PLUTO at the Lawrence Radiation Laboratory will be reduced in Fiscal Year 1963 and phased out completely by the end of Fiscal Year 1964.
- b. The only industrial complex with an existing capability for fabricating PLUTO fuel elements will be closed out in Fiscal Year 1963. Notice of this action must be served within the next four days.

010

- e. The introduction of an industrial contractor to undergo a process of orientation and training at the Lawrence Radiation Laboratory, and later to accept responsibility for a follow-on program, cannot be accomplished.

In view of Dr. Brown's program guidance of November 19, 1962, the intervening budgetary actions, and Dr. Brown's letter of December 20, 1962, your comments are requested as to whether the restricted Atomic Energy Commission program now meets and satisfies the interest of the Department of Defense.

Sincerely yours,

James W. T. Searle

Chairman

The Honorable Robert S. McNamara
Secretary of Defense

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DIRECTOR OF DEFENSE RESEARCH AND ENGINEERING
WASHINGTON 25, D. C.

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1/3/63

DEC 20 1962

el
Dear General ~~Luedecke~~:

My letter to you dated 19 November outlined the Air Force re-oriented financial program for PLUTO as follows: \$12 M for the period 1 January to 30 September 1963 and \$15 M from 1 October 1963 to 30 September 1964.

OSD guidance to the Air Force will include a modification of Development Plan 655A (Nuclear Ramjet Powered Supersonic Low Altitude Vehicle Technology) dated 28 June 1962 to include exploratory studies, tests and investigations to establish feasibility of components that will provide the basis for technical design of both nuclear and chemical powered supersonic low altitude vehicles. It is not contemplated that a full scale nuclear engine program will be included. OSD does believe, however, that the completion of development and test of the TORY IIC reactor is appropriate and consistent with DOD plans.

At a later time consideration will be given to the initiation of flight test programs where required to demonstrate feasibility and practicality of potentially useful systems. While the appropriate type of propulsion system to be used is not now known, careful consideration will be given to the advantages, disadvantages, and trade-offs of the various types.

The AEC is further requested to carry on a low level of reactor design activity in support of the OSD exploratory development effort until it has been determined whether a flight test program is desired. The need for any other reactor related feasibility work (such as fuel element technology) should be separately established by the AEC on the basis of its own knowledge of possibly critical technical areas.

Harold Brown
Harold Brown

Maj Gen A. R. Luedecke (USAF Ret)
General Manager
Atomic Energy Commission
Washington 25, D. C.

012

January 3, 1963

PERSONAL AND CONFIDENTIAL

UNCL. BY DOE
NOV 88

Dear Mr. President:

I am pleased to submit my bi-weekly report to you on significant developments in the atomic energy program.

1. Nevada Community (Unclassified)

In my report of November 13, as well as during your recent trip to Nevada, I mentioned that the development of a community at the Nevada Test Site was under consideration to enable recruitment and retention of personnel for the ROVER program. Based on consultant's study and advice from the FIA, a full program of government financing and assistance probably would be required due to the uncertain economic base of the new community.

Recently, several private developers have submitted unsolicited proposals for providing a community and claiming only minimum government assistance would be required. One particular proposal made involves a privately-owned site near Ash Meadows which is generally south of the Nevada Test Site. Senator Cannon of Nevada has indicated particular interest in this proposal. The staff is carefully evaluating this proposal and site as well as other proposals to determine whether they will serve the interest of the government as well as the tentative site selected by AEC and the full program of guarantees and assistance that AEC has been advised would be required.

Although the decision to sponsor such a community is not final as yet, the AEC has filed a request for withdrawal of public domain land at a site previously determined as most desirable of all sites considered up to that time in order to protect the government's interests and preclude private individuals from staking mining claims on the proposed site. This application for withdrawal of public domain land does not preclude the evaluation and adoption of a different site if it will better serve the purposes of the Atomic Energy Commission.

2. SNAP Program Study (Unclassified)

The Atomic Energy Commission is planning to undertake a comprehensive review of the SNAP program to place the requirements, development efforts, and schedules in a proper perspective similar to the recent review on Civilian Nuclear Power which you requested.

The objectives of the various programs will be clearly defined to permit assessment for national priorities. Assistance will be sought from NASA, DOD, and the Communications Satellite Corporation in obtaining information on requirements, economics, reliability studies and schedules for planned space missions. The study will encompass both isotope and reactor powered SNAP devices and all known and projected applications.

We recently informed the Bureau of the Budget that we are reviewing the future requirements for Pu-238 and investigating the production of Cm-244, which appears to have very promising characteristics for use in isotopic power devices. Present indications are that additional production is likely to be required if future requirements are to be met.

The completion date of the report has not been definitely determined, but we expect six months will be required.

3. U.S. Cooperation with Euratom in Fast Reactor Development (Official Use Only)

The Commission, in December 1962, approved a program of cooperation with Euratom in the development of fast reactors, under which the AEC, subject to Congressional and Presidential authorization, would supply Euratom between 400 and 500 kilograms of plutonium. The material would be used in the second core of the French Rhapsodie fast reactor and in fast critical assemblies located at Karlsruhe, West Germany, and Cadarache, France.

The conclusion that this plutonium could be made available was determined only after a complete review of the AEC's plutonium supply and demand situation during the period FY 1964-65, the time at which the plutonium will be needed by Euratom. In accordance with normal procedures the quantities will be included this spring in

the Commission's annual recommendations to the President concerning the production and distribution of special nuclear material. An important factor in the consideration was the significant benefits which are expected to accrue to the U.S. fast breeder reactor program through the availability of information to the AEC from the Euratom facilities.

Approval of this international program is in consonance with the emphasis placed on the breeder reactor program in the recently completed Civilian Nuclear Power Report to the President. Incidentally, the Civilian Nuclear Power Report has received an extremely good reception both here and abroad.

4. Redesign of Antarctica Nuclear Power Plant (Unclassified)

Subsequent to the cancellation of the Byrd Station (Antarctica) nuclear power plant project, a contract was executed with Allis-Chalmers providing for the undertaking of an analysis of the M-32 design to determine whether significant improvements could be effected with actual redesign to follow if warranted.

The analysis has now been completed and it has been concluded that the results of this analysis show enough promise to warrant further investigation. We have therefore taken action to authorize Allis-Chalmers to proceed with redesign. It is expected that the work will be completed by June 1963, at an estimated cost of \$500,000.

5. Status of ERB (Unclassified)

In December 1962, the Commission approved for participation in the U.S.-Euratom Joint Reactor Program, subject to confirmation of the method used in obtaining competitive bid responses, the 237 MWe boiling water power reactor project of the German ERB group.

ERB is a company owned jointly by two large West German utilities, Rheinisch-Westfälisches Elektrizitätswerk AG (RWE) and Bayernwerk A.G. The reactor, which is of General Electric design, is estimated to cost

-4-

\$33.1 million, including the cost of the generating plant and the first core. Under the terms of the Joint Program, the reactor is to be in operation by December 31, 1965.

Under the terms of the Joint Program, incentives available to projects for participation include a ten-year fuel element guarantee, long term capital loans to cover part of the plant construction costs, supply of fuel on a deferred-payment or lease basis, and a market for ten years for plutonium recovered from the reactors.

I would like to call to your attention that this matter was approved by the Commission with Commissioner Ramey dissenting. The grounds for dissension were that the General Electric Company was selected as the contractor without the benefit of competitive bidding. The other members of the Commission felt that, although the procedures followed by AEC differed from those in this country, which is not unreasonable, the solicitation of proposal was on a competitive basis. The Commission plans to discuss this decision with the JCAE at an early date.

Respectfully submitted,

(Signed) Glenn T. Seaborg

Glenn T. Seaborg

The President
The White House



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

COPY NO. 15

January 4, 1963

INFORMATION MEETING 229

EXCLUDED BY
NOTICES

10:05 a.m., Friday, January 4, 1963 - Chairman's Conference Room, A-457

1. Letter to the President re FY 1965 Requirements.

Approved as revised. (Betts)

2. President's December 26, 1962 Letter re Dispersal.

The Commissioners requested preparation of a staff analysis including reference to previous discussions and correspondence for review with Commissioners Ramey and Palfrey. (Betts)

The President's letter is to be circulated to the Commissioners. (Henderson)

3. December 28 Letter from Dr. Harold Brown re Weapons Requirement.

The Commissioners requested that in development of the military characteristics inclusion of a PAL device be considered. (Betts)

A responsive letter to Dr. Gerald Johnson is to be prepared and is to mention reference to the possibility of inclusion of the PAL device. (Betts)

4. Briefing of the Commission re Nassau Pact, Monday, January 7, 2:30 p.m.,
The White House.

The Chairman said Mr. Bundy will brief the Commission on Monday and Commissioner Ramey reported that in a telephone conversation with Mr. Bundy yesterday, Mr. Bundy said the President wished to brief the Joint Committee.

5. Proposed Department of State Letter to Mr. Bundy re NATO Briefings.

Mr. Ink reported briefly on staff advice re the Commission's determination with respect to waiver for the initial briefings and the proposed position on security procedures. The Commission directed oral transmittal of this position to the State Department and preparation of an appropriate memorandum for the record. (Ink-Wells)

6. Congressman Holifield's Telephone Call to the Chairman.

Mr. Holifield telephoned the Chairman during the meeting and discussed briefly:

- a) funding for the Pluto Program;
(the Chairman said he would telephone the Secretary of Defense today) (Henderson)
- b) Mr. Holifield's thinking on funding for the Space Program.'

7. AEC Staff Meeting with Mr. Conway, JCAE Staff.

Mr. Ink said Mr. Conway would come to Germantown during mid-January to discuss with staff the 1964 budget and suggested the Commissioners inform him if there were additional items they considered useful for discussion by the two staffs.

8. Meetings of the Working Groups on UK and French Agreements.

Mr. Ink reported that at the meeting of the French Working Group, the AEC had been asked to analyze the Department of Defense's list of possible courses of action re levels of assistance to the French. The analysis is in preparation for circulation to the Commissioners early next week. With respect to the UK Working Group, AEC staff is preparing a draft agreement on transfer of missiles. The Commissioners agreed that subsequent to the Commission meeting with Mr. Bundy, Commissioners Ramey and Palfrey should meet with Messrs. Alexis Johnson and Jeffrey Kitchen. (Ink-Wells-Betts)

9. January 3 Meeting of the Committee to Review STORAX III Program.

Dr. Haworth reported briefly on his meeting with the group yesterday and said it had been agreed the AEC will prepare letters on a) test plans for January; b) test plans for the balance of FY 1963 tailored to the FY 1964 test funding level; and c) approval for use of special nuclear materials. (Betts)

10. Land Withdrawal for NTS Community.

The Chairman noted his discussion with the General Manager of the desirability of withholding action and the decision to proceed with the withdrawal notice. The additional letter from Mr. Orville Bell was noted and the Chairman pointed out the need for early consideration of Mr. Bell's proposal. (Bloch)

11. December 31, 1962 Letters from Messrs. H. H. Barschall and H. T. Richards, Wisconsin University.

The Chairman requested a) early acknowledgment, b) transmittal of a copy of the letters to the Chicago Operations Office, and c) preparation of an analysis of these letters and the letter from Dr. Ramsey. (Bloch)

12. Commission Study of the SNAP Program.

The Commissioners agreed it would be desirable to have an early luncheon meeting with Messrs. Webb and others. (Henderson)

13. Letter to Mr. Chatenet re Organic Reactor Program.

Commissioner Wilson said the AEC representative in Brussels will call on the EURATOM Commissioners to discuss this matter and the Commissioners approved the letter for transmittal to Mr. Chatenet. (Henderson)

14. Draft Letter re Nuclear Surface Navy.

Commissioner Ramey noted receipt of the draft from Admiral Rickover and the Commissioners agreed the matter should be discussed next week after review by the General Manager and others.

15. Extracts of the President's Budget Message for AEC Comment.

The Commissioners discussed briefly the desirability of suggesting additional material and the Chairman noted it might be possible to discuss the matter during the Commissioners' meeting with Mr. Bundy on Monday. Additionally, the Chairman requested preparation of appropriate material for inclusion in the President's State of the Union Message. (Henderson)

16. Appointment of Member of Personnel Security Review Board.

In response to the General Manager's recommendation, the Commissioners suggested appointment of Mr. Farrington Daniels, Mr. Norman Hilberry or Mr. Paul Foote.

17. Annual Assistance Payments to the Community of Oak Ridge.

Mr. Hollingsworth reported briefly on the upcoming negotiations, noting that there would very likely be some local publicity on this matter.

18. Nevada Power Company Suit re Amargosa Power Contract.

Mr. Hennessey reported that the injunction has been denied by the court.

19. Agenda for the Week of January 7, 1963.

Approved as revised. (Secy)

PRESENT

Dr. Seaborg	Gen. Luedecke
Dr. Wilson	Mr. Hennessey
Dr. Haworth	Mr. Hollingsworth
Mr. Ramey	Mr. Ink*
Mr. Palfrey	Mr. Henderson
	Mr. McCool

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Commissioners
General Manager
General Counsel
Secretary
W. B. McCool
Secretary

*Partial attendance.

Bundy called to say he would brief the Commission next Monday on the Kennedy-Macmillan Nassau agreement.

Holifield called and we made a decision to meet for breakfast on Wednesday, January 9th, at the Congressional Hotel. He said he has inquiries from the staff regarding PLUTO. It seems there has been a mix-up on the information that was conveyed to AEC by BOB, and the question was raised as to McNamara's and Brown's clearance of the PLUTO project. To his understanding, DOD has given the green light, but upon the instigation of Colonel Thorn of the Air Force, the program is being undercut by lower echelons of BOB. (This is a part of the manned-bomber vs. missiles controversy.) I said that Brown's letters of November 19th and December 20th seems to give us a certain amount of go-ahead but we understand that McNamara talked to Bell and suggested the exact program we are now operating under from the BOB. I said that yesterday I sent a letter to McNamara pointing out this inconsistency. Holifield said that he may even go so far as to investigate the letting of contracts by the Space Agency. He has heard complaints from scientists all over the U.S. that the people working on contracts are not high caliber, therefore wasteful, and other projects are consequently starved. He said he understands that the President wants to talk to the JCAE about NATO and Polaris. He is concerned he will fall into a real trap. Additionally, he is deeply concerned about the release of restricted data to unstable or potentially volatile governments. I said I hope that the President will talk personally to him about this and I think that he will.

I had lunch in the cafeteria with Tom Pigford, Chairman, University of California Department of Nuclear Engineering.

Haworth and I attended a meeting of consultants--Stafford Warren, Shields Warren, Averill Liebow, Hymer Friedell, George LeRoy, and H. L. Bowman, who are discussing the question of whether we should fire replicas of the Nagasaki and Hiroshima weapons to calibrate the results of the Atomic Bomb Casualty Commission study in Japan.

The word is that the White House will not approve all 19 of the underground shots requested (January - March 31, 1963) for STORAX III .

At 2:40 p.m. I presided over Commission Meeting 1906 (action summary attached).

Saturday, January 5, 1963 - D.C.

I worked in the office until 3 p.m.

I wrote a letter to Philip Danielson at the University of Colorado suggesting several names for the presidency there.

I worked on the speech I will give on January 10th before the Texas Legislature and on material for an interview to be published in the G.E. magazine. I also read journals.

Sunday, January 6, 1963

I worked on the speech I will give in Washington on January 16th at the Eleventh Annual Women's Forum on National Security.

I visited Science Service (1719 N Street, N.W.). As one of the judges, I went over the papers of the 40 prospective winners of the 1963 Westinghouse Science Talent Search. The other judges were Harold Edgerton (Chairman, Department of Psychology, Ohio State), Rex Buxton (Psychiatrist, University of Michigan), Alan J. Goldman

UNITED STATES GOVERNMENT

Memorandum

ENCL. BY DOC
NOV 63

TO : A. R. Luedecke, General Manager

DATE: January 4, 1963

Approved A. R. Luedecke

FROM : W. B. McCool, Secretary

Date 1/7/63SUBJECT: ACTION SUMMARY OF MEETING 1906, FRIDAY, JANUARY 4, 1963, 2:40 P.M.
ROOM A-410, GERMANTOWN, MARYLAND

SECY:MK

Commission Business1. AEC 1051/5 - Health and Safety Review of Aerospace Projects

Discussed.

The Commission requested a joint meeting with appropriate representatives of the Department of State, Department of the Air Force, National Aeronautics & Space Council, and National Aeronautics and Space Administration, to be scheduled in mid-January. (Ink-Secretary)

The Commission also requested that the matter be placed on the Agenda for the forthcoming ACRS Meeting, and that ACRS be provided pertinent background information. (Price)

The Chairman requested that the available Commissioners plan to meet with Chairman Hall of the ACRS during his stay in Washington next week. (Secretary)

2. Letter to President re FY 1965 Requirements

Approved, as revised. (Betts)

3. Excerpt of Presidential Budget Message

Approved, as revised. (Abbadessa)

The Chairman requested that if the suggested revision is not accepted, he be afforded the opportunity to discuss the matter. (Abbadessa)

1-4153
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4. AEC 466/9 - Toll Enrichment of Spanish Natural Uranium

Approved, as revised. (Wells)

5. AEC 890/94 - Assistance to Nuclear Power Programs Abroad

Approved, as revised. (Wells)

Commissioner Ramey requested that the study re IAEA's role include its relationship to all aspects of atomic power development in underdeveloped countries. (Wells)

The Chairman requested preparation of a letter to Mr. Bell on AID-AEC relationship. (Wells)

6. AEC 26/13 - Joint Research Program Between the AEC and the National Cancer Institute of the National Institutes of Health

Approved. (Dunham)

7. AEC 611/1C - Proposed Trespass Regulations

Approved, as revised.

The Commission requested that the proposed rules be published for public comment. (Hennessey/Waters/Secretary)

8. AEC 881/47 - Contract for Financial Settlement for Spent Fuels (Storage Agreement with Yankee and Commonwealth)

Approved. (Vinciguerra)

9. AEC 89/10 & AEC 89/12 - Policies and Procedures for Non-Soviet Bloc Alien Guests and Employees

Approved, as revised.

The Commission requested that the language revisions be discussed with Commissioner Haworth. (Traynor)

A. R. Luedcke
Meeting 1906

-3-

January 4, 1963

10. Letter to Secretary of Defense re Nuclear Propulsion of Navy Surface Vessels

Copies of the letter should be provided to the Commissioners.
(Done)

The Chairman requested that Commissioner Palfrey review the letter prior to discussion of the matter at the Information Meeting on Monday, January 7, 1963. (Secretary)

cc: Commissioners

(Mathematician, National Bureau of Standards), Russell Johnson (Physical Chemist Operations Research, Inc.), Stanley Korenman (M.D., N.I.H.) and Arthur Malmon (physicist, N.I.H.).

Monday, January 7, 1963 - D.C.

I called McNamara and asked him if he has had an opportunity to read my letter on PLUTO (attached January 3rd). I told him I would like to have his opinion on how the Bureau's cutback to \$7.7 million will affect our program. To me it means all personnel at the Lawrence Laboratory will be cut along with industrial capacity, the fuel building capacity and cutting us down to the point where it will take us quite a while to get back--if we decide to get back. Further, it is inconsistent with Harold Brown's two letters of November 19th and December 20th to our General Manager, in which he suggests we continue with research and development for improvement of fuel element technology and reactor design. I said we want to point out that the cut is inconsistent with Harold Brown's guidance to us for I understand he talked with Bell on this sometime in December. McNamara said he will look into this right away and call back.

I called Elmer Staats and asked if he has seen my suggestion for a sentence in the President's budget message to Congress which might serve as an administrative response to our civilian nuclear power report to the President. I explained that a certain amount of pressure is beginning to build up around the Administration's reaction to the power report. I said that the report has been well received by industry and that Holifield seems reasonably satisfied with it. I pointed out that the President's request for this report was made last year a few days before the Section 202 hearings were concluded, and that we expect the Section 202 hearings this year to be devoted mainly to the report. I suggested a sentence somewhat along the following lines: "As a start toward the implementation on the Report to the President on Civilian Nuclear Power, funds are requested. . . ." I said this would not entail very much spending, and, in fact, the small increase in spending that would be entailed next year is already in the budget. Staats said he will check into this. If he sees any reason why it can't be done, he will call me.

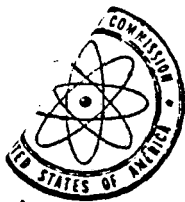
Kaysen called and said the President thinks the draft letter (copy attached) to Holifield is fine and it will go under his signature. The President asked Kaysen about classification of the letter. While it contains no classified information on weapons it is decided that the letter should be confidential. I agreed that this is all right since we are answering questions posed in Holifield's unclassified letter. Kaysen will have the draft letter typed in his office. I advised him that I have talked with Staats regarding the Commission's report to the President on civilian nuclear power. I said I urged Staats to put a phrase in the backup material in the President's budget message to the effect that the administration intends to implement this report. I said the budget already provides for a prototype reactor, and I feel that a start towards implementation is very important.

At 10 a.m. I presided over Information Meeting 230 (notes attached). We discussed our letter to McNamara (copy attached) suggesting that DOD plan for more nuclear surface ships and that DOD discuss this with the AEC.

At 11 a.m. the Commission met with GAC. I reported on the Civilian Nuclear Power Report, the status of private ownership and plutonium buyback, weapons testing plans, the December 20th meeting at BOB, the 1964 budget, etc.

At noon I had lunch at the Roger Smith Hotel with Ken Pitzer, Eugene Wigner, Norman Ramsey (GAC members) and Commissioner Wilson.

Staats called and read me the following redraft (which replaces the entire



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

UNCL. BY DOE
NOV 86

COPY NO. 15

January 7, 1963

INFORMATION MEETING 230

9:50 a.m., Monday, January 7, 1963 - Chairman's Office, D. C.

1. Commissioners' Meeting with the General Advisory Committee, 11:00 a.m. Today.

2. Senator Pastore's Call re Storage of Material at Davisville, Rhode Island.

The Chairman requested a report for response to Senator Pastore. (Ink)

3. Funding for the Pluto Program.

The Chairman said he had talked with Secretary McNamara this morning regarding the problem and the General Manager reported that a draft response to the Commission's letter is now on the Secretary's desk. The Commissioners agreed no further action is in order pending receipt of the Secretary's reply and accepted the General Manager's recommendation for a 15-day extension of the Coors contract at a reduced operating cost. (Pittman)

4. Presidential Budget Message Language re Civilian Nuclear Power Report.

The Chairman said he had discussed the proposed language with Messrs. Staats and Kaysen, pointing out the importance of affirmative language in relationship to the forthcoming 202 Hearings.

5. Commissioners' Luncheon Meeting with NASA-Air Force-Space Council Representatives.

The Chairman suggested the luncheon be scheduled at an early date as a working luncheon to discuss a) Snap Program and b) health and safety review of aerospace projects. (Henderson-Pittman-Price-Secy)

6. President's December 26, 1962 Letter re Dispersal.

The Chairman noted this matter is in review by Commissioners Ramey and Palfrey (see Item 2 of Information Meeting 229). Commissioner Ramey noted the importance of appropriate staff assistance. (Betts)

7. Status of National Fuel Services Project Negotiations.

In response to the Chairman's request, the General Manager reported some progress in the negotiations and that among the matters not yet settled is the question of financial backup.

8. Orville Bell Proposal re NTS Community.

In response to the Chairman's request, the General Manager reported a site evaluation board will review this matter at NTS this week, looking to an early report.

9. Director General Eklund's Request re IAEA Use of Puerto Rico Nuclear Center.

The Chairman noted Dr. Eklund's request and the Commissioners requested recommendations. (Wells)

10. Commissioners' Meeting with Mr. Bundy, 2:30 Today, Room 1113-B, D.C. Office.

The Commissioners suggested the General Manager and Messrs. Ink, Wells, Kavanagh and Henderson attend. Mr. Bundy's office is to be informed. (Henderson)

✓ 11. Letter to Secretary of Defense re Naval Nuclear Surface Ships. *Attached*

The Commissioners discussed briefly Commissioner Palfrey's redraft and requested revision in light of that discussion. (Later in the meeting, Admiral Rickover noted that the Department of the Navy supports the use of nuclear power in the carrier approved for the FY 1963 Shipbuilding Program, using four reactors with horsepower equivalent to that of the ENTERPRISE. Department of the Navy officials are to discuss this matter with the Secretary of Defense today.)

12. Proposed Letters to Senator Jackson and Congressman Holifield re Review of Nuclear Test Program.

The Commissioners discussed briefly the proposed transmittal and the Chairman suggested Commissioner Haworth review the letter for later discussion. Commissioner Ramey noted

13. Cancer Research Program at ORNL.

Commissioner Wilson commented briefly on the possible desirability of Laboratory responsibility and the Chairman suggested consideration by Dr. Dunham. (Dunham)

14. Proposed Response to Mr. Conway, JCAE, re Snap Study.

The Chairman asked Commissioner Haworth to review the proposed response.

15. Drilling Contracts at NTS.

The General Manager reported that the Nevada Test and Space Site Construction Labor Board and Union leaders have accepted the drilling agreement and that although Union membership had not ratified the agreement on December 18, 1962, he proposes to proceed under the terms of the new contract. Although it is possible that some individuals will not return to work under the contract, it is understood that replacements will be obtained. The Commissioners agreed the General Manager should proceed with an appropriate determination under the Defense Powers Act which would make these provisions applicable to all drilling contracts. (Bloch)

16. Arms Control and Disarmament Agency Comments on AEC Private Ownership Bill.

Mr. Hennessey noted receipt of the affirmative comment.

17. Entry of NS SAVANNAH to Portland, Oregon.

Mr. Ink noted the SAVANNAH has docked at Portland and that the reactor is shut down.

(Admiral Rickover and staff entered the meeting at this point)

18. Proposed Letter to Secretary Rusk re Cooperation with the French on Transmittal of Information on Nuclear Submarines.

Admiral Rickover commented that his staff had coordinated over the weekend in preparation of the proposed letter to Secretary Rusk. He reviewed briefly available information on USSR capabilities and spoke to his opinion regarding transmittal of this information, noting however that this decision is a matter of national policy.

The Chairman requested review of the letter by the Commissioners. (Henderson)

every responsibility and the Chairman's... consideration by... (Denton)

PRESENT

- Dr. Seaborg
- Dr. Wilson
- Dr. Haworth
- Mr. Ramey
- Mr. Palfrey*
- Gen. Luedecke
- Mr. Hennessey
- Mr. Ink
- Adm. Rickover**
- Mr. Leighton**
- Mr. Rockwell**
- Mr. Henderson
- Mr. McCool

DISTRIBUTION

- Commissioners
- General Manager
- General Counsel
- Secretary

028

W. B. McCool
Secretary

* Partial attendance.

THE WHITE HOUSE

WASHINGTON

UNCL BY DOE
1988

January 9, 1963

GT FILE

Dear Congressman:

Thank you for your letter of December 24, 1962, on nuclear weapons testing. I regret that so far we have not succeeded in negotiating a satisfactory test ban agreement or other arms control agreement with the Soviet Union. In the absence of such agreements, we obviously must go on improving our weapons technology, and nuclear testing must certainly play its appropriate part in this effort.

Both the Atomic Energy Commission and the Defense Department have vigorous development programs in this field under way. The successful completion of these programs will, of course, require nuclear tests at appropriate times. Many of these new developments can now be tested successfully under ground since both the yield and sophistication of feasible underground tests have been constantly increasing. As you know, we are carrying forward a continuing program of underground tests.


The Atomic Energy Commission, the Department of Defense and their laboratories are preparing to be able to test above ground as expeditiously as now appears useful. At present, the best judgment of the Defense Department and the Atomic Energy Commission is that it will not prove useful to plan the next atmospheric test series before late 1963 or the first part of 1964. Their present thinking is based entirely on scientific and technical considerations; namely, the time required to analyze the results of our own and the Soviet Union's tests of 1962, to understand the results of these analyses, and to plan new experiments based on this understanding. We are of course ready to review this plan at any time that changed international circumstances appear to make a different approach desirable. Both the Atomic Energy Commission and the Department of Defense have

under intensive review the organizational arrangements, technical methods, and locations for the next series of atmospheric tests. Further, they are aware of the necessity for flexibility in plans to meet new circumstances if necessary.

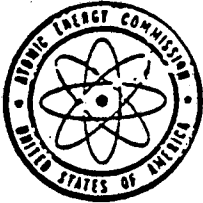
I will be glad to have the Defense Department and the Atomic Energy Commission review with the Joint Committee the kind of arrangements that are being made with respect to Christmas and Johnston Islands and the Joint Task Force as soon as their own thoughts on these matters are sufficiently clarified to make such a review useful.

I appreciate your continued interest in these important matters and the great support the Joint Committee has given to the efforts of the administration in this field.

Sincerely,



Honorable Chet Holifield
Chairman
Joint Committee on Atomic Energy
Congress of the United States
Washington, D. C.



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

90157

BY DOE
NOV 86

JAN 7 1963

OFFICE DIARY
GLENN T. SEABORG
Chf USAEC. 1961-72
FOLDER-PAGE 25045

Dear Bob:

I am writing to report to you on a recent review by the Commission of its development program in reactor technology applicable to surface warships which as you know has been underway for the past eight years in response to Department of Defense and Navy requests.

During the last eighteen months the three prototype nuclear powered surface ships - the attack aircraft carrier ENTERPRISE, the guided missile cruiser LONG BEACH, and the destroyer leader BAINBRIDGE have joined the fleet. These ships have already demonstrated the capabilities and reliability of their propulsion plants by steaming a total of more than 115,000 miles. The Commission understands that these nuclear propulsion plants have been successful in meeting the design objectives specified by the Navy.

As part of its current naval reactor program, the Commission has been working for more than three years on the design and development of a reactor suitable for powering a four-reactor carrier. This development has now reached the stage where we can be sure that the plant can provide at least [REDACTED]

~~DELETED~~ [REDACTED] in this application. The proposed reactor represents a significant advance in technology. Each of the new reactor cores will operate at almost the same power as the combined power of two ENTERPRISE reactors and will have more than twice the operating life; this means that each of the new cores will make available more than four times the energy of one of the reactor cores now installed in ENTERPRISE. A core of this type is already being fabricated.

While the initial fuel loading of ENTERPRISE cost 64 million dollars, the initial fuel loading of the four reactor carrier is expected to cost 32 million dollars and would last more than twice as long. Based on the fuel used during the first year of ENTERPRISE operations, the initial fuel load of the four-reactor carrier could be expected to last at

CLASSIFICATION CANCELLED
WITH DELETIONS
BY AUTHORITY OF DOE/OC

REVIEWED BY [Signature] DATE 4/11/86
[Signature] 4/11/86

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least seven years. Further, our studies indicate that the cost of buying and installing four of the higher powered reactor plants is expected to be about one third less than the cost of the eight reactor plants on ENTERPRISE.

I report these developments to you, because we believe the Commission's development program has reached a point where an overall appraisal of the future of nuclear propulsion plants for surface warships is needed for us to be able to determine the level and scale of effort of the Commission's program in the next few years. To date the Commission has given high priority to this program. Planning ahead, however, we note that following authorization of the BAINBRIDGE, the Department of Defense is planning construction of only one additional nuclear surface ship, the Destroyer leader which was added to the 1962 fiscal year program.

We understand that consideration was given to a four reactor propulsion plant for another carrier in the 1963 shipbuilding program but that a conventional carrier was decided upon at that time; we would like to raise the question whether it is too late to reconsider this decision. We would also like to have the opportunity of discussing with you the current evaluation by the Department of this and other potential applications of nuclear propulsion plants for surface warships in the coming years.

Our own experience in this field indicates that the program has reached a stage of maturity and of promise that would justify consideration by the Department of a significant increase in the application of nuclear power to the surface fleet in its shipbuilding program in the years immediately ahead.

Our views were reinforced by a recent visit by members of the Commission and staff to the ENTERPRISE on December 18, 1962 to observe the ship during operations at sea. In addition to our inspection of the ship and its nuclear powerplant, we heard Rear Admiral J. T. Hayward, Captain V. P. dePoia and other ships officers comment on the operation of the nuclear propulsion plant as seen by the operational commander and the officers responsible for operating the ship. We were impressed by their reports on the improved military capability of the ship and its reduced vulnerability to submarine attack resulting from the ship's sustained high speed, rapid maneuverability, plant reliability and maintainability, and absence of corrosive stack gases. Also the absence of boiler air intakes reduces vulnerability to atomic, biological, and

chemical warfare.

This review of our reactor program for naval warships has therefore emphasized for us the importance of reviewing with you in the very near future the current status and prospects of this technology in the light of national defense requirements.

Sincerely yours,

(Signed) Glenn T. Seaborg

Chairman

The Honorable Robert S. McNamara
The Secretary of Defense

paragraph at the top of galley 11 of the budget): "Expenditures in 1964 for the development of economic civilian nuclear power are estimated at \$244 million, an increase of \$34 million over 1963. In line with the Commission's recent report to the President on civilian nuclear power, increasing emphasis will be placed on reactors which produce more fuel than they consume ('breeders'). Breeders will be necessary if nuclear power is to make a significant contribution to the national power supply in the long run, and a new experimental facility will be built in pursuit of this objective. Similarly, funds are requested to secure construction, in cooperation with the utility industry, of a prototype reactor (known as Spectral Shift) of substantial size, which promises to be an attractive approach to nuclear power in the shorter term."

I said that some thought should be given about whether there should be more of a response by the White House to the civilian power report. Staats said that this may well come up during a press conference which will be held by the President the day before the budget goes to Congress and then suggested AEC hold a press conference following the one held by the President, like most of the larger agencies in the past have done. I said that it would not be sufficient for this to come up in our conference. He agreed to have a good response prepared should the question be raised and I said such a statement will be helpful to us later when the hearings are held.

At 2:30 p.m. Bundy briefed the Commission on the Kennedy-Macmillan Nassau agreement. He emphasized the implications for transfer of nuclear submarine and weapons information to France.

At 4:30 p.m. I was presented a plaque by J. Donald Durand (Executive Secretary) and Meredith Buell (Public Relations Director) of the American Steamship lines for efforts toward the NSS Savannah.

Tuesday, January 8, 1963 - D.C.

At 9:30 a.m. I met with Vance Cooper (Manager, Chemical and Materials Engineering Laboratory, G.E., and a friend from UCLA student days), who is thinking of leaving G.E. and is interested in a position with the AEC.

I received a reply from Gilpatric to my December 20th letter saying that DOD will be ready to help AEC test in September 1963, and will provide three 135-diagnostic aircraft.

I sent a revised letter to Bundy about STORAX III, which responds to a request we reduce the number of underground tests requested for January 1st to March 31st, to the rate of the 1962 program. We asked for approval for the first six tests.

Secretary McNamara called to say that he looked into the matter of my January 3rd letter regarding PLUTO and that he is sending me a reply today (attached). His letter will say, in effect, that DOD thinks that the program covered by the AEC budget is satisfactory, with the exception of certain advanced reactor studies which will be associated with service needs and may cost about \$2 or \$3 million a year. He said they will be happy to support any budget request for such work. DOD would be interested in seeing the advanced reactor studies associated with possible service needs. McNamara went on to state, "it is conceivable we might be able to finance part of it out of emergency DOD funds, or we could transfer some funds to you." He asked that our staff people work with the DOD people. He said that he recalls no conversation with BOB which affects the above-stated views. I told him I sent him a letter yesterday commenting on nuclear power for surface ships.

As a result of our visit to the Enterprise, the Commission wishes to encourage DOD

1/8/63

THE SECRETARY OF DEFENSE
WASHINGTON

8 JAN 1963

938 1/8/63

Dear Glenn:

Thank you for your letter of 3 January 1963 in which you outlined the AEC's PLUTO Program for FY 64 reflecting reappraisal by BoB of the extent of the DOD's interest.

Continuation by AEC of TORY IIC seems to be in consonance with the reoriented Low Altitude Supersonic Vehicle (LASV) program which is now being directed toward establishing the technological basis for a possible system, using either nuclear or chemical propulsion. It is noted in your letter that funds are not included for advanced reactor studies. As was mentioned in Dr. Brown's letter of 20 December 1962, the services need some support in this area.

It is recognized that phasing down the project activity at the Lawrence Radiation Laboratory as the TORY IIC tests are completed will create a void in project continuity in the event that an early decision is made to proceed with a nuclear engine development or flight test program. This eventuality does not seem likely at the present time and it would not appear to me to be in the best interest of the Government to expend funds or tie down technical personnel maintaining this capability on a stand-by basis.

The Defense Department does not feel qualified to comment on the necessity for further reactor design studies over and above those mentioned above or for fuel element development since we are not familiar with the complete scope of your activities.

In summary, the program you describe as resulting from the Fiscal Year 1964 budget seems to satisfy the interest of the Department of Defense with the exception of studies in support of service investigations.

While it would not be appropriate for me to stipulate your allocation for this purpose, it would appear that a level of effort of two or three million dollars a year would be adequate.

Sincerely,



Honorable Glenn T. Seaborg
Chairman
U.S. Atomic Energy Commission
Washington 25, D. C.

to look into the possibility of more extensive use of nuclear power for surface ships. McNamara said they will look into it, but the problem is that costs are far in excess of merits and advantages. I explained that costs have come down considerably. He asked whether this is at the expense of speed. I said not very much, other efforts could probably be made to keep the speed constant. I said we would like to discuss this matter with him after he has read our letter.

I had lunch at the Roger Smith Hotel with GAC members Manson Benedict, Phil Abelson and Eugene Wigner to discuss possible AEC participation in Civil Defense through the Oak Ridge National Laboratory.

At 2 p.m. I met with Al Crewe (Director, ANL) and George Beadle (President, University of Chicago) to discuss the present status and future hopes for the Argonne Advanced Research Reactor. Crewe briefly indicated the importance of this reactor to Argonne. I responded by recognizing the needs and reviewing the extensive efforts the Commission personally has made in attempting to obtain approval of this project for FY 1964. We discussed ways of getting it through Congressional action.

I sent my biweekly report (copy attached) to President Kennedy.

At 4:30 p.m. I met with the heads of the Regulatory Agency at the National Lawyers' Club. Halaby, Katzenbach, Boyd, Macy and Swidler were present. We discussed mainly ex parte and anti-trust matters.

Lynne and I attended a reception at the Executive House Hotel given by Jesse M. Unruh and Manning J. Post.

At 10 p.m. I attended the unveiling of the Mona Lisa by President Kennedy at the National Art Gallery.

Wednesday, January 9, 1963 - D.C.

I had breakfast with Chet Holifield at the Congressional Hotel. We discussed private ownership legislation, my letter to McNamara (attached on January 7, 1963) urging nuclear powered surface ships, the status of PLUTO, the trouble with the AEC-Maritime program, the FY 1964 budget, the Nassau agreement, AEC reorganization, etc.

I wrote to BOB Director Kermit Gordon (copy attached) requesting an extra \$4 million in the FY 1964 budget on the basis of McNamara's January 8th letter in which he suggested more money to carry on advanced reactor research for PLUTO.

At 10 a.m. I presided over Information Meeting 231 (notes attached). At 11:40 a.m. I presided over Commission Meeting 1907. The Commission approved extension of the contract with Edgerton, Germeshausen and Grier. The Commission requested that Vinciguerra and Tremmel assist Commissioner Ramey in a review of forthcoming contract proposals looking toward possible replacement of Contractors where appropriate. The Commission requested review of the matter of reimbursement of contractor consultant fees through AEC contracts and in another matter, approved the award of an AEC citation to Dr. Eric Randolph Jette. The Chairman requested preparation of an appropriate letter to Dr. Jette.

I had lunch with Alan Waterman, Jim Webb and George Simpson (Webb's assistant) at the Cosmos Club. We discussed a listing of university graduate centers (three lists of 20 each in order of decreasing excellence--60 in all) in order to implement the Seaborg PSAC Panel report which suggests supporting the first twenty and building up the next twenty.

JAN 8 1963

PERSONAL AND CONFIDENTIAL

Dear Mr. President:

I am pleased to submit my bi-weekly report to you on significant developments in the atomic energy program.

1. Congressional Calendar (Unclassified)

Informal discussions with the Joint Committee on Atomic Energy indicate the following as likely subjects for Joint Committee hearings during the first session of the 88th Congress:-

- a. Presidential Study on National Nuclear Power Needs. JCAE interest will undoubtedly center on your reaction to the report and plans for its implementation.
- b. Private Ownership of Nuclear Material. The AEC now expects to submit the necessary proposed legislation to amend the Atomic Energy Act in the near future, and the JCAE is expected to review the matter thoroughly in public hearings. A related matter to be included in the proposed legislation is the question of uranium enrichment services to the nuclear industry - so-called "toll enrichment."
- c. Reorganization of the AEC. Representative Hollifield plans to hold hearings on the subject this session.
- d. Nuclear Energy for Space Applications. The Joint Committee has followed this subject

carefully. Criticism will probably result from what many influential members feel to be inadequate funding of the Rover rocket program. The question of a community to support the Rover development program at the Nevada Test Site is also likely to absorb considerable time and attention.

e. Results of Recent Nuclear Tests and Plans for the Future.

f. Remote Site Reactors. The JCAE feels that the development and construction of small power reactors for remote sites, such as the Antarctic, is lagging. Criticism of FY 1964 funding levels, is likely.

g. Progress on Food Irradiation.

h. The Uranium Procurement Program.

i. Health of the Nuclear Industry.

j. Project Plowshare.

k. Manufacturing Standards. Joint Committee interest in this subject stems from Admiral Rickover's public criticism of American industry for carelessness and inefficiency in the production of components for essential national programs.

The Joint Committee will, of course, hold its annual statutory hearings on the "Development, growth, and state of the nuclear industry" and authorization hearings for the AEC's FY 1964 budget. Many of the above-mentioned subjects may be covered in whole or in part during these hearings. In

connection with the authorization hearings, there are indications that the JCAE is considering legislation to extend its authorization power to the entire AEC budget. Most operation funds are not now included with the Committee's authorization function.

2. Status of the Enrico Fermi Plant (Unclassified)

A public hearing before an Atomic Safety & Licensing Board is now in progress on the application of the Power Reactor Development Company (Enrico Fermi Plant) for a provisional operating license for the Fermi reactor near Monroe, Michigan.

As a plutonium-producing, fast breeder reactor, the Fermi reactor is a first-generation plant of the type which the Commission considers has the greatest long-range potential for the economic generation of electrical power from atomic energy, as pointed out in the Commission's recent report to you on civilian nuclear power.

By way of background, the operation of the so-called Fermi Plant has been opposed by several labor unions during previous hearings on the application for a construction permit. The case was carried to the Supreme Court, which sustained the issuance of a construction permit.

While some difficulties have been encountered in the construction of the Fermi reactor, which is now complete, there is nothing inherent in a reactor of this general type which would prevent it being designed to operate reliably and safely. Of course, high standards of quality control and observance to strict procedures must always be maintained in reactor construction and testing.

3. Consolidated Edison Company - Reactor Construction Application (Unclassified)

The Commission has received an application from Consolidated Edison Company of New York for a permit to construct a nuclear power plant of approximately one million net electrical kilowatts at Long Island City, Queens, New York. This privately-financed nuclear reactor would be the largest for

which the Commission has received such an application, and the application is the first to seek a permit to locate a power reactor in a large metropolitan area. Consolidated Edison's proposal includes provisions for containment, and the company believes that the containment and other engineering safeguards should make the site acceptable. All power reactors so far constructed have been located at some distance from large metropolitan areas. The application for the permit is now under review by the Commission's Regulatory staff and by the Advisory Committee on Reactor Safeguards, and it presents substantial questions regarding the application of Commission siting policy.

Press inquiries have been received concerning this plant. We plan to respond by explaining the Commission's site criteria and the status of this application by Consolidated Edison, but we will not, of course, indicate or judge the merits of the application.

4. Status of Nuclear Fuel Services, Inc., Proposal (Unclassified)

In my report of November 13, 1962, I advised that Nuclear Fuel Services, Inc., has proposed the construction of the first private plant for the reprocessing of irradiated reactor fuel elements. AEC assistance, in the form of a base load, is required to carry the plant over the first few years, when few private reactors will be in operation. Detailed negotiations with Nuclear Fuel Services, Inc., leading toward a Commission base load commitment to the plant, are in process.

The proposed plant would have certain technical features which have not been fully demonstrated, and this fact has caused some concern. The AEC is hopeful that arrangements can be developed which would ensure construction and operation of the plant. The sponsoring companies are the W. R. Grace Company and the American Machine & Foundry Corporation.

Respectfully submitted,

(Signed) Glenn T. Seaborg

Glenn T. Seaborg

The President

of file

JAN 9 1963

UNCL. BY DOE
NOV 86

Dear Mr. Gordon:

Our original Fiscal Year 1964 budget submission for the PLUTO Program was based upon Department of Defense guidance of January 3, 1962, and totaled \$41.6 million (\$39.9 million in operating funds and \$1.7 million for equipment). When we became aware that the Department of Defense was again reviewing the scope of Project PLUTO, at the Bureau's request and pending the receipt of new guidance, we limited our request to \$7.7 million (\$7.0 million in operating funds and \$0.7 million for equipment) which we considered at that time to be the very minimum necessary to complete the Tory IIC test.

Subsequent to the Bureau's review and approval of our \$7.7 million request, new guidance was received from the Department of Defense in a letter from Dr. Brown, dated November 19, 1962. The latter necessitated a revision in the scope and in the amount of funds required by the Commission for PLUTO. Our revised estimate totaling \$26.1 million (\$24.9 million in operating funds and \$1.2 million for equipment) was transmitted to you as part of our appeal action on the Fiscal Year 1964 budget. The Bureau's final review disallowed our request for the additional \$18.4 million on the basis of the Bureau's understanding of the views of the Secretary of Defense. Subsequently, an additional \$2.0 million was approved providing us with a total PLUTO allowance of \$9.7 million.

In a letter dated December 20, 1962, Dr. Brown provided further guidance to the Commission which was seemingly written for the purpose of reaffirming the November 19 guidance. In order to secure clarification of the Department of Defense's interests, Secretary Malabarra was queried regarding the adequacy of our technical program within the \$9.7 million limitation in a letter dated January 3, 1963. In a reply dated January 8, 1963, Secretary Malabarra supported the continuation of the Tory IIC and the continuation of advanced reactor studies for the Services.

Honorable Kermit Gordon

- 2 -

Secretary McManara indicated that while it would not be appropriate for him to stipulate our allocation for this purpose it appeared to him that two or three million dollars a year would be adequate. The Commission feels that a level of \$4.0 million for FY 1964 would be more in consonance with requirements to support the tasks indicated in Secretary McManara's letter of January 8, 1963 and that funds available to the Commission for PLUTO for FY 1964 should be \$13.7 million instead of the \$9.7 million now provided in the President's budget. The Commission would appreciate your guidance as to means by which these additional funds could be provided.

We would be pleased to discuss this matter at your convenience.

Sincerely yours,

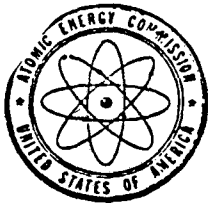
(Signed) Glenn T. Seaborg

Chairman

Honorable Kermit Gordon
Director, Bureau of the Budget
Washington 25, D. C.

Enclosures:

Ltr to McManara, dtd 1-3-63
Ltr fr McManara, dtd 1-8-63



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

UNCL. BY DOI
NOV 86

COPY NO. 15

January 9, 1963

INFORMATION MEETING 231

10:00 a.m., Wednesday, January 9, 1963 - Chairman's Office, D. C.

1. Chairman's Breakfast Meeting with Congressman Holifield Today.

The Chairman reported the following matters were discussed at the meeting:

- a) Meeting of the Commission with the Joint Committee soon after transmittal of the President's budget message;
- b) Nassau Pact;
- c) Implications of the budget re the Civilian Nuclear Power Report;
- d) Chairman Holifield's thinking re "moon madness;"
- e) Pluto Program;
- f) AEC reorganization;
- g) Commission's dinner with the Joint Committee on January 22;
- h) Commission decision re KRB Reactor Project;
- i) Early Joint Committee hearings re private ownership;
- j) AEC-Maritime Reactor Program;
- k) January 7, 1963 letter to Secretary McNamara re Navy nuclear surface vessels.

2. Commissioner Haworth's January 7 Memorandum to the General Manager re Statement by Dr. Van Allen.

The General Manager said he would notify the proper people.

3. Letter re Reaction to Civilian Nuclear Power Report.

The Chairman said Commissioner Haworth is preparing the letter for the President's signature.

4. Draft Letter to Secretary Rusk re Cooperation with the French.

The Commissioners discussed briefly the draft letter and noted that the information therein will be included in the material discussed by the working groups on US-French cooperation. In the meantime, Commissioners Palfrey and Ramey are reviewing with staff other possible means of cooperation.

5. Secretary McNamara's January 8, 1963 Letter re Pluto Program and Chairman's Conversation with the Secretary.

The Chairman noted the letter from Secretary McNamara and his telephone conversation on this subject. The Commissioners approved the General Manager's draft letter to the BoB requesting increased funding in the amount of \$4 million. (Brown-Pittman)

6. Chairman's January 7, 1963 Letter to the Secretary of Defense re Naval Nuclear Surface Vessels.

The Chairman said he had discussed with Secretary McNamara the Commission's letter. The Secretary will discuss the matter with the Commission following his study of the letter. (Brown)

7. Information Meetings Scheduled for Friday, January 11 and Monday, January 14.

A brief meeting will be held on Friday morning at the usual time, and the meeting for Monday will probably be scheduled in the afternoon. (Secy)

8. January 7, 1963 Letter from Secretary Gilpatric re Weapons Guide Lines Follow-On from the December 20, 1962 Meeting.

Noted.

9. Chairman's January 8, 1963 Letter to Mr. Bundy re Underground Tests - NTS.

Noted.

10. Commissioners' January 15 Luncheon Meeting with Messrs. Webb, Zuckert and Others to Discuss Snap Program and Aerospace Program.

The luncheon is scheduled for 12:30 p.m., Room 1167, D. C. Office. (Brown-GM-DR-Secy)

11. Status of Contract Negotiations with Nuclear Fuel Services.

In response to the Chairman's request, the General Manager reported briefly on the major problems in the current negotiations, including materials control, financial underwriting, contract periods, etc. The Chairman requested additional information on the materials control matter. (Baranowski)

12. January 4, 1963 Memorandum from Secretary Celebrezze re Annual Federal Radiation Council Report to the President.

The Chairman suggested Commissioner Haworth prepare any necessary comment.

13. Material re AEC for Inclusion in the President's Budget Message.

The Chairman noted the alternate language developed with the BoB. It will be circulated for the Commissioners' information. (Brown)

With respect to the State of the Union Message, the Chairman said Mr. Sorenson has been informed that the Commission will be happy to provide any appropriate material.

14. Argonne Research Reactor.

The Chairman said he had met with Dr. Crewe and Dr. Beadle to discuss the Argonne Research Reactor. The General Manager said he would review the matter. (English)

15. Senator Pastore's Request for Information re Storage of Material at Davisville, Rhode Island.

The General Manager reported briefly on the information he had obtained about the temporary storage of low-level waste and said Mr. Conway had been given this information.

16. Letter to Congressman Holifield re Government Assistance in the Civilian Power Program.

The Chairman requested Commissioners review prior to his early transmittal of the letter. (Brown)

17. Commissioners' Visit to Bendix Plant, Kansas City, Missouri with MLC January 23-24.

The Chairman noted his planned departure the evening of the 23rd and said he would give a brief talk at 5:00 p.m., January 24 at the meeting of the Bendix Management Group. Commissioners Wilson and Ramey hope to accompany the Chairman.

18. Nominations for the Ferris Award.

The Chairman noted receipt of the letter of invitation for nominations.

19. December 31, 1962 Letter from Orville Bell re NTS Community.

20. Mr. Carl Kaysen's Minutes of the Meeting of the Special Committee re Underground Test Planning.

To be circulated. (Brown)

21. General Manager's Report on the Labor Situation at NTS.

22. Secretary Gilpatric's January 4, 1963 Letter re Joint Task Force Eight.

The Chairman noted receipt of the letter and the reference to certain weapons. Commissioner Haworth spoke briefly to Dr. Gerald Johnson's comments on the latter point in the discussion with the GAC yesterday.

23. Draft Letter to Mr. Hobart Taylor re Nondiscrimination Clause in WPPSS Contract.

Approved as revised. (GC)

14. Release of Pictures of Danny Boy Event.

The Commissioners agreed with the General Manager's recommendation that the pictures not be released but said they should be marked "OUO" and that Pierre Salinger should be informed that the Commission took this action in conformance with the President's policy. The Commissioners agreed also that the pictures of the drill rigs should not be released for the same reason. (Ink-Ciark)

25. Commissioners' Meeting with Messrs. Roger Batzell and Michael May of LRL, Friday, a.m., January 11.

The Commissioners said they would be pleased to meet with Messrs. Batzell and May following the Information Meeting on Friday. (Betts-Secy)

26. Meeting of the US-UK-French Steering Committee, 11:00 a.m., Thursday, January 10.

Commissioner Ramey noted that he and Commissioner Palfrey will attend the meeting tomorrow and he discussed briefly the status of the discussions on the agreements with the UK and France.

27. Filing of Suit Against Combustion Engineering re Death of John Burns in the SL-1 Accident.
28. Draft Letter to Senator Jackson and Congressman Holifield re Nuclear Test Plans.

The Chairman sasked Commissioner Haworth to review the proposed letter.

PRESENT

Dr. Seaborg	Gen. Luedecke
Dr. Wilson	Mr. Hennessey
Dr. Haworth	Mr. Ink
Mr. Ramey	Mr. Brown
Mr. Palfrey	Mr. McCool

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Commissioners
General Manager
General Counsel
Secretary

W. B. McCool
Secretary

At 2 p.m. the Commission met with the GAC to receive recommendations.

Thursday, January 10, 1963 - Washington - Austin - Texas - Los Angeles

I flew on flight 107 to Dallas, accompanied by Harold Price. We left at 9 a.m. and arrived at 12 noon. We were met by Dr. and Mrs. James Maxfield at the airport and went on to Austin in Mr. Germany's (Chairman of the Board, Lone Star Steel Company) private DC-3.

I gave a talk entitled, "The Role of Texas in Radiation Control," in the Senate Chamber of the Texas State Capitol, which was followed by a signing, by Governor Price Daniel, of the agreement assigning regulatory authority from the Federal Government to the state of Texas. Others participating in the program were State Senator Culp Krueger, K. E. Peavey (Texas Commissioner of Health), J. R. Maxfield (Chairman, Texas Radiation Advisory Board), Lieutenant Governor-Elect Smith and Governor-Elect John Connally.

We flew back to Dallas with Mr. Germany. I then went to Los Angeles on Delta flight 889 which left at 6:50 p.m. and arrived at 8 p.m.

I spent the night with my mother at South Gate.

Friday, January 11, 1963 - Los Angeles

Mother accompanied me for the entire day.

I went to the State Motor Vehicle office where I took and passed an examination to renew my California driver's license.

At CBS in Hollywood I recorded two 15-minute University Explorer programs with Hale Sparks on Atomic Energy for the Future.

We then went to Cedars of Lebanon Hospital where Dr. Henry Jaffe (my mother's physician) showed us the new facilities to be dedicated. We attended a lunch with Rabbi Magnin, Feintech (Dedication Chairman), Steve Broidy (President, Cedars-Sinai Hospitals), Henry Jaffe and others.

I then held a press and TV conference (Channels 2, 4, 5, 7, 11, and 13 were represented).

I gave the dedication address, "New Frontiers in Nuclear Medicine." The people mentioned above and State Attorney General Stanley Mosk participated. Clayton and Gayle Sheldon, Bud and Bonnie Coffin, Yoshie Kadota, Clarence and Vicky Johnson, Ron and Marilyn Sheldon, Elmer and Lillian Johnson, Lloyd and Doris Johnson and Jeanette and Ray attended the ceremony.

We had dinner at a restaurant on La Cienega Boulevard with Clayton, Jeanette and Ray, as guests of Jack and Beth Hallatt. Later we visited at their home on Motor Avenue.

I spent the night with my mother at South Gate.

(Attached are notes of Information Meeting 232, held in my absence.)

Saturday, January 12, 1963 - Los Angeles - Washington

I left Los Angeles at 9:30 a.m. on United flight 812. We landed in Philadelphia at



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

UNCL. BY DOE
NOV 86

COPY NO. 15
January 11, 1963

INFORMATION MEETING 232

9:45 a.m., Friday, January 11, 1963 - Chairman's Office, D. C.

1. Proposed Response to Questions from New York Times concerning Consolidated Edison Application (Mr. Price's Memorandum of January 9, 1963).

Approved. It is understood this information is not to be given general news media distribution. (DR)

2. Dr. Weinberg's January 7 Report on Proposed Reactor for Desalination Project.

Dr. Wilson requested a staff analysis of the report to include feasibility of the project and consideration of the proposed reactor type. Dr. Wilson added that Mr. Fred Schuldt of the BoB had commented regarding the use of "30" people at Oak Ridge on the project and suggested we be alerted to a possible query on this. (Pittman)

3. Proposed Response to NUMEC Inquiry re NPR Diversion to Plutonium Production.

Dr. Wilson discussed briefly the proposed response and commented on planned arrangements for chemical processing during the use of the reactor as a power producer only. Mr. Hennessey noted that the WPPSS would be a licensee during this period and thus would make its own arrangements for chemical processing. Mr. Hollingsworth said he would look into this matter and provide Dr. Wilson information on it. (Baranowski)

4. Labor Negotiations re Subcontracts at Brookhaven Laboratory and NTS.
5. Pluto Program Funding.

Mr. Henderson reported briefly on the White House staff call re Congressman Holifield's query and the proposed reply. Mr. Henderson reported to the White House staff the present status of AEC's discussions with the DoD and the BoB and the White House will now discuss the matter further with the BoB. Mr. Hollingsworth noted that we do not have a BoB response to our letter of January 9.

6. President's January 9 Letter to Chairman Holifield re Nuclear Test Program.

Noted.

7. Commissioners' January 8 Meeting with Representatives of Minnesota Power and Light Company.

Dr. Wilson reported briefly on the meeting with the Minnesota representatives and the problems that face them with respect to submission of a reactor project proposal. The Commissioners discussed with the Minnesota representatives the possibility of submission by April 1 of an unsolicited proposal for a 250-300 megawatt plant. Mr. Ramey added that the Commissioners had made it clear during the discussions that the Commission did not intend to become involved in any controversy here between public and private power company representatives.

8. Status of Negotiations with Nuclear Fuel Services Company.

Dr. Wilson discussed briefly his meeting with NFS representatives on Wednesday, January 9 at which time they discussed the status of negotiations and informed him that the following matters remain at issue: a) claims not covered by insurance which are due to AEC negligence; b) effective date of escalation revisions; c) wind-fall clause; d) batch measurement problem; and e) force majeure. Mr. Hollingsworth noted the continuous staff negotiations with NFS during the last two weeks. Dr. Haworth said he had attended the Production Division briefing in Germantown yesterday, and suggested inclusion of information material from that briefing in a forthcoming staff paper. Mr. Hollingsworth reported that the staff plans to submit recommendations to the Commission during the week of January 14. (Secy)

9. Snap Study Outline.

Mr. Ramey suggested it would be helpful to have an outline prior to the Commissioners' meeting with Messrs. Webb, Zuckert, et al, Tuesday, January 15. (English)

10. Talking Paper re Health and Safety Aspects of Aerospace Program.

Mr. Ramey requested circulation of a talking paper prior to the Commissioners' meeting with Messrs. Webb, Zuckert, et al. (Ink-DR)

11. U.S. Loan of U-233 to the U.K.

Mr. Hollingsworth reported that the U.K. now wished to defer U.S. loan of the material for one year.

12. CIA Briefing for Joint Committee, 10:00 a.m., Tuesday, January 15.

Mr. Ink said Commission representatives will be invited to attend on a limited basis.

13. Policy Guidance for 202 Hearings.

Mr. Ink said it would be helpful for the staff to discuss informally with the Commission sometime next week several matters of policy to guide preparation of the testimony for the 202 Hearings in March. (Ink-Secy)

14. AEC-Joint Committee Staff Meeting, January 16, Germantown.

Mr. Hollingsworth noted the AEC will meet with the Joint Committee staff on January 16 to discuss the 1964 budget and other matters.

15. Break-Out of Funding under the President's FY 1964 Budget for the AEC.

The Commissioners requested information on the programmatic effect of the proposed funding. (Abbadessa)

16. January 10 Bids for NPR Power.

Mr. Hennessey reported preliminarily a total subscription of over 165 percent.

17. Anti-Discrimination Clause in WPPSS Contract.

Mr. Hennessey reported the President's Committee has approved Secretary Udall's suggested language.

18. Agenda for the Week of January 14, 1963.

Approved as revised. (Secy)

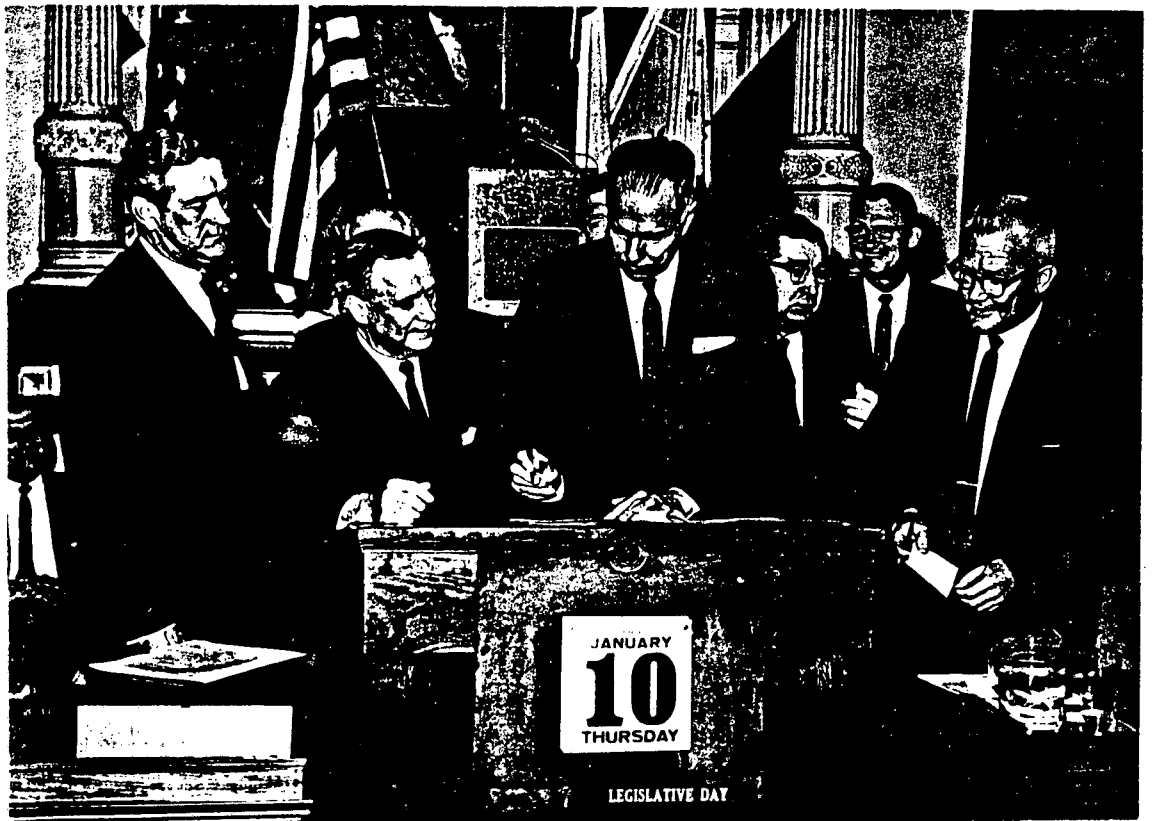
PRESENT

Dr. Wilson	Mr. Hollingsworth
Dr. Haworth	Mr. Hennessey
Mr. Ramey	Mr. Ink
Mr. Palfrey	Mr. Henderson
	Mr. McCool

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W. B. McCool
Secretary



Ceremony at Austin, Texas, commemorating the Assignment of Authority of the AEC to the Texas State Department of Health, January 10, 1963

L to R: Governor John Connally, Governor Price Daniel, Seaborg, Senator Culp Krueger, J. E. Peavy (Commissioner of Health) and Charles Barden (State Health Department)



Ceremony at Cedars of Lebanon Hospital, Los Angeles, California, where Seaborg dedicated the Radiation Therapy and Nuclear Medicine Wing, January 11, 1963

L to R: Norman Feintech (Executive Vice President), Mrs. Norman Feintech, Selma Seaborg, Seaborg, Jeanette Edwards, Dr. and Mrs. Henry Jaffe

5 p.m. because of fog at Friendship Airport.

I returned to Washington on the Atlantic Coast Line Train which left at 5:30 p.m. I arrived at 8:15 p.m.

During my absence the family acquired a dog, "Butch."

Sunday, January 13, 1963

I spent the day reading and working on AEC papers.

Monday, January 14, 1963 - D.C.

I attended a PSAC meeting where we discussed the following: 1. the effect of the Skybolt decision on the U.K., 2. the Wiesner-Zuckerman meeting held last week, 3. new data on seismic detection (surface waves)--this and other factors are leading to an optimistic feeling that there will be a test ban agreement by April, 4. the Titan III question--a committee study ordered by McNamara with a report due the end of February, and 5. the press release on the Van Allen belt due by January 30th.

At noon I went to the Hill to hear President Kennedy's State of the Union Message. I was seated on the floor of the House with the Cabinet Members.

I had lunch with Ken O'Donnell at the Roger Smith Hotel.

Larry Olson called and said that Frank Norton has been to see him and asked him if he were willing to serve as the Federal representative on the Southern Compact Group. Larry called to make sure I knew about this. I told him I had heard. Larry is opposed to the group's being used for development purposes and as a business-getter. Norton told him he feels it is more of a legal umbrella to make sure that applicable regulatory laws are favorable in the area. Norton wants someone familiar with the Commission. I told Larry that it seems like a good idea to me, and I indicated this to Norton when he talked with me.

At 2:50 p.m. I presided over Information Meeting 233 (notes attached). There seem to be difficulties between Commissioners Ramey and Palfrey as to representation on State Department committees that are working on the implementation of the Nassau Agreement.

Carl Kaysen called and said that the President has signed off on the production program in accordance with my letter to Gilpatric. I advised him that I am sending Kermit Gordon a recapitulation of the whole thing since I think it has been rather confusing. Carl said he would be glad to help in any way he can.

I attended a reception given by the Harrison Browns at their home (3048 P Street, N.W.) for Dr. and Mrs. Roger Revelle.

I received the report of the GAC's 82nd meeting (copy attached) held in Washington on January 7-9, 1963.

Tuesday, January 15, 1963 - D.C.

Kitchen, Chairman of the Nassau Agreement at State, called to discuss the people with whom they hope to work on some of the subgroups on the Nassau Agreement. They would like to have Commissioner Ramey work on subgroup #1 on the assignment of matching forces and Commissioner Palfrey work on subgroup #4 on multilateral planning. He said that Ink has been following subgroup #2 and to some extent subgroup #1 (which covers the British and French follow-up), but added that they



UNITED STATES
ATOMIC ENERGY COMMISSION

WASHINGTON 25, D.C.

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COPY NO. 15

January 14, 1963

INFORMATION MEETING 233

2:50 p.m., Monday, January 14, 1963 - Chairman's Office, D. C.

1. Fermi Award Policy

I will circulate information to Commissioners Ramey and Palfrey. (Secy)

2. Chairman's Report of His Trip to the West

The Chairman reported briefly on his participation in the ceremony Friday for the Commission Agreement with the State of Texas, and his speech at the Cedars of Lebanon Hospital in Los Angeles on Saturday.

3. Proposed White House Reply to Chairman Holifield's Letter re the PLUTO Program

The Commissioners approved the proposed reply as revised.

4. Chairman's Brief Discussion Today with Secretary of Defense McNamara re the PLUTO Program and Naval Nuclear Surface Ships

5. President's Scientific Advisory Committee Meeting This Morning

The Chairman reported briefly on several matters discussed, including the forthcoming public release on the Van Allen Belt.

6. 1963 Lawrence Awards Ceremony

The Chairman requested scheduling the ceremony for Thursday, April 25, 1963, for late afternoon, to be followed by a reception. Biographical information on the candidates is to be circulated. (Henderson/Secy)

7. Letter to Director of the Budget Gordon re AEC/DOD Budget Planning.

The Chairman said he would transmit the letter. (Henderson)

8. Nuclear Fuel Services Contract Negotiations

The General Manager reported briefly on the status of the negotiations. A staff paper will be distributed on Wednesday morning for consideration at the afternoon meeting. (Secy)

9. Commissioners' Luncheon Tomorrow at 12:30 p.m., Room 1167, D. C. Office with Messrs. Zuckert, Webb, et al to Discuss SNAP Program and Aerospace Program

The outline of the SNAP study has been circulated, and the General Manager said a talking paper on health and safety in aerospace will be circulated shortly. (Secy)

10. CIA Briefing of Joint Committee Tomorrow at 2:00 p.m.

The Chairman noted the Commissioners and the General Manager are invited to attend.

11. Commission/JCAE Informal Executive Meetings

The Chairman said he had discussed this matter with Senator Pastore and suggested plans be made for an early meeting. (Henderson/GM)

12. Letter to the President re US/UK Program for Research on Materials Scattering

The Chairman said he would send the letter today. (Henderson)

13. AEC 580/176 - Stockpile Composition

Noted.

14. Implementation of the Nassau Pact

Mr. Ramey reported briefly on his attendance with Commissioner Palfrey and Mr. Wells at the Steering Committee Meeting of last Thursday. He discussed the preparation of various staff papers for future consideration and the Chairman requested preparation of a brief summary of working group assignments and status of discussions. Secretary Ball's NATO speech will be circulated as AEC 1125/1. (Secy/Wells)

15. Letter to Mr. Bundy re Harvard Contract

In response to Mr. Palfrey's request, the General Manager said he would provide material for assistance in preparation of the letter. (Vinciguerra)

16. Report to Joint Committee on Assistance to Industry

For discussion at the Information Meeting on Friday. (Secy)

17. Cooperation with West Germany re Pebble Bed Reactor

The General Manager noted the visit of West German representatives next week and said they would probably wish to discuss the possibility of a cooperative program. Mr. Ramey suggested the Commission consider what support programs should be undertaken, including consideration of this proposal, if one develops.

18. Attendance of Soviet Scientists at the Cambridge Conference on U.S. Participation in High Energy Physics

The Commissioners agreed with the General Manager's recommendation that reciprocity should not be required. (Wells)

19. Letter to Mr. Conway re Projected Cost Schedule on the NPR

The Commissioners agreed the General Manager should send the letter.

20. AEC 901/44 - Visit of Czechoslovakian Nationals to ORNL

Approved. (Wells)

21. Controller General's Decision re Hearing Examiners' Decision on Moran Contract Appeal

Mr. Hennessey said the Controller General had refused to recognize the decision by the Hearing Examiners and the claim will now have to be taken to the Court of Claims.

PRESENT

Dr. Seaborg Gen. Luedcke
Dr. Haworth Mr. Hennessey
Mr. Ramey Mr. Henderson
Mr. Palfrey Mr. McCool

DISTRIBUTION

Commissioners
General Manager
General Counsel
Secretary

W. B. McCool
Secretary

GENERAL ADVISORY COMMITTEE
TO THE
U.S. ATOMIC ENERGY COMMISSION
P.O. BOX 3528
WASHINGTON 25, D.C.

January 11, 1963

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Dr. Glenn T. Seaborg, Chairman
U. S. Atomic Energy Commission
Washington 25, D. C.

Dear Glenn:

The 82nd Meeting of the General Advisory Committee was held in Washington D. C. on January 7, 8 and 9, 1963. All Committee members were present at all sessions. The present members of the Committee are Philip H. Abelson, L. R. Hafstad, K. S. Pitzer, Norman F. Ramsey, J. C. Warner, Eugene P. Wigner, John H. Williams, and Manson Benedict, as Chairman. Also present were Robert A. Charpie, Secretary, and Anthony A. Tomei, Assistant Secretary.

With deep regret we record the absence of Eger V. Murphree, owing to his untimely death on October 29.

(1) AEC Budget for FY 64

The Committee was privileged to hear a report on the actions being taken on the FY '64 budget by the Bureau of the Budget.

While recognizing the need for economy, and accepting the fact that some cuts are unavoidable, we feel strongly that the cutback in the support for low energy physics research is disproportionately high.

We feel further that considering the satisfactory performance of the N. S. Savannah, the enthusiastic acceptance it has had, and the possibility that our lead in nuclear propulsion could revitalize the U. S. Merchant Marine, there are strong reasons for a continuing program in this area including a follow-on reactor. The proposed interruption will prove costly both in time and money.

(2) Civilian Nuclear Power

The Committee considers "Civilian Nuclear Power" to be an excellent report and endorses whole-heartedly its conclusions and recommendations. In particular, the proposed three-part reactor program consisting of (1) early construction by utilities of large nuclear power stations of the presently most competitive type, (2) development, construction and demonstration of advanced converter reactors, and (3) intensive development and,

later, demonstration of breeder reactors, is essential if the full potential of nuclear energy for power production is to be realized.

The Committee supports fully the recommendations of the report that legal and administrative arrangements be made to permit private ownership of special nuclear material, to set a firm and reasonably long-term price for plutonium buy-back, and to provide toll enrichment services for uranium. All three steps are needed to permit nuclear power development to proceed in the United States in a normal industrial framework and to make possible effective use abroad of reactors burning enriched uranium from the United States.

The Committee favors a price for plutonium set in accordance with its near-term value as a fuel for thermal reactors. This price should be based on the content of fissionable isotopes, and should include a penalty for Pu-242.

The arrangement for providing toll enrichment which seems simplest to the Committee would be for the AEC to require that a customer who requests a given amount of uranium product of a given enrichment supply the AEC with an amount of natural uranium hexafluoride sufficient to produce the desired amount of product, allowing for waste of a specified composition. The customer would be given the option of purchasing waste UF₆ of this enrichment from the AEC's stockpile in amount corresponding to the amount of product, or of allowing the AEC to keep the waste material. The AEC's charges for such toll enrichment would be based on its price scale for natural, enriched and depleted uranium hexafluoride.

The recent action of the Commission in announcing willingness to stretch out the purchase of domestic uranium until 1970 is a desirable means of maintaining continuity of operation of uranium mines until increased demand from nuclear power plants is expected to provide a commercial market large enough to absorb production. The Committee would be interested to hear what consideration the Commission is giving to stretching out operation of other facilities, such as gaseous diffusion plants, whose product may be in temporarily reduced demand owing to near-term cutbacks in military requirements, before consumption for nuclear power systems becomes substantial.

(3) High Energy Accelerator Physics

The GAC was told of the appointment of the new PSAC/GAC Panel on High Energy Accelerator Physics. The membership of the Panel is:

<u>GAC</u>	<u>PSAC</u>	<u>Other</u>
P. H. Abelson	W. K. H. Panofsky	O. Chamberlain
J. H. Williams	E. M. Purcell	M. Cell-Mann
N. F. Ramsey (Chairman)	F. Seitz	E. L. Goldwasser
		T. D. Lee

-5-

The meetings held so far by the Panel were described. The GAC awaits with interest the report of the Panel which is expected in late Spring.

(4) Informal meeting with the Asst. Gen. Mgr. for Research and Development

The meeting with Dr. English and the Division Directors who report to him was a particularly useful session for the GAC. The Committee plans to hold a similar session at each January GAC meeting in future years.

(5) Project Sherwood

Actions taken on the basis of the recommendations of the 1962 Sherwood report of the GAC were described by Dr. McDaniel, Director of Research. The Committee was disappointed to hear that positive action on many of its recommendations had not yet occurred. It wishes to reaffirm the conclusions of its 1962 report and to emphasize its opinion that some of the least promising current activities should be eliminated promptly in order to make funds available for new and more promising activities.

(6) Educational Matters

The informal report by Dr. Poor on the activities of the Division of Nuclear Education and Training was interesting to the Committee. We assume, on the basis of this discussion, that the Commission intends to continue its Educational Program beyond mid-1964. We agree completely with this course of action.

We were glad to note that the AEC continues to support institutes for upgrading high school science teachers and for introducing nuclear science into elementary college science curricula. We are pleased to note the continuation of support for the purchase of equipment for teaching nuclear science in laboratory courses in the basic sciences. We hope these programs continue to receive AEC support because they most certainly will encourage a better understanding of nuclear science, its significance and its applications by all students.

Some of the programs and plans described by Dr. Poor lead us to refer once again to our views about the relationship between the multi-purpose AEC laboratories and the universities.

1. More emphasis should be placed on the flow in and out of the laboratories of young non-permanent scientific personnel. We believe that this is better accomplished by post-doctoral rather than pre-doctoral fellowship programs. The present number of post-doctoral fellowships seems too small. The post-doctoral program in the life sciences at Oak Ridge and the general post-doctoral program at Brookhaven are examples of what should be done.

- B. Some of the greatly enlarged proposed pre-doctoral fellowship programs described to the Committee give us concern, for two reasons. First, we believe that pre-doctoral students are less valuable to the laboratory than post-doctoral. Second, we believe that unless pre-doctoral research at a national laboratory is carefully planned for each student on an individual basis, it will be less beneficial to the student than research in a university environment. The present ORINS proposal appears to be cast in the form of a financially attractive offer of fellowship support to the student. It would seem more appropriate to offer the facilities of the laboratory to universities and faculty members for use in pre-doctoral research by students under faculty direction. Unless the stipend proposed for AEC-supported fellowships is comparable to that offered by other government pre-doctoral fellowship programs, a student decision to do pre-doctoral research at a national laboratory might be based on financial advantage rather than on the educational merits of the arrangement.

- C. Increased exchange between laboratory staff and university faculty should be encouraged. This need not be on a "one-to-one" basis. We previously have suggested that some system of "sabbatical" leaves be instituted for laboratory scientists.

- D. According to the views which we have expressed concerning the future role of the AEC laboratories, we believe that the primary function of the laboratories connected with Hanford and Savannah River is production, and with NRTS, it is development and testing. Nevertheless, each has facilities which are useful to universities in its region for research and graduate education, especially in nuclear engineering. As these laboratories enter into cooperative educational programs with universities, care should be exercised to avoid making commitments which would lead to the installations becoming laboratories for basic as well as applied research.

- E. We have noted with interest that the study being made by Dr. Norman Hilberry on the educational activities conducted by all agencies and contractors of the AEC, although delayed, is expected to be completed by February 1. The Committee would like to review this report at our March meeting.

(7) Missile Vulnerability

The GAC received an excellent briefing from Dr. Charles M. Herzfeld of ARPA concerning weapon vulnerability and AICBM topics. It is evident that many specific effects in this area are being investigated and that weapons can be hardened with respect to these effects.

We intend to discuss weapons effect investigations further at our next meeting.

Despite the fine work now being done the GAC is still concerned lest a poorly understood or completely unrecognized effect may be of crucial importance. It is recommended that over-all tests of two types be made. The first type would be made on an ICBM re-entry unit complete except for nuclear explosive, instrumented to determine whether all components functioned successfully upon exposure to a nuclear explosion at slightly greater than the expected critical distance. The second type would comprise a full proof test in which a stockpile ICBM would be exposed to an AICBM explosion at a presumably barely safe distance at the altitude of interest and then the ICBM explosive yield observed. We note with concern that the USSR appears to be equipped for this type of test whereas the US is not. This situation should be corrected.

(8) High-Yield Weapons

The Committee was pleased to note Dr. Seaborg's constructive letter on high-yield weapons to Secretary McNamara. While the Department of Defense is deciding on the position it will take regarding development of such weapons, we recommend that the AEC's weapons laboratories be encouraged to continue their provisional program on high-yield devices. The Ripple principle appears to be an especially promising one meriting further development and test. Dr. G. W. Johnson's account of the military value of a 100 MT weapon detonated at an altitude of 150,000 ft, which is above the range of effective interception, strengthens the Committee's view of the importance of continuing development of high-yield weapons.

(9) Weapons Subcommittee

The Weapons Subcommittee met in Washington on December 3rd. Its report was adopted by the full Committee, and is appended hereto. This Subcommittee hopes to meet with weapons specialists at the Rand Corporation on February 4 or 8, after arrangements for this contact have been made by the General Manager.

(10) Ernest Orlando Lawrence Awards for 1963

The GAC's recommendations for the Lawrence Awards for 1963 have been transmitted to the Commission in a separate letter dated January 11, 1963.

(11) GAC Chairman

The Committee has elected Dr. Hanson Benedict as its chairman for the period from the present through the first GAC meeting in 1964.

(12) Reactor Subcommittee

Dr. Hafstad has accepted the chairmanship of the Reactor Subcommittee of the GAC.

(13) 83rd GAC Meeting

Handwritten: Hafstad
The next meeting of the General Advisory Committee will be held in Sandia and Los Alamos on March 18, 19 and 20, 1963. Agenda topics for that meeting are as follows:

- A. Consideration of nominees for the next Fermi Award.
- B. Review of Hilberry report on AEC education activities.
- C. Discussion of high energy accelerator panel progress.
- D. Review of Sandia programs and weapons effects investigations, including plans for the DASA laboratory.
- E. Review of selected aspects of LASL programs, especially Rover. The AEC has also agreed to include briefings on NERVA and RIFT.
- F. Consideration of economics of shutting down or stretching out operations of the diffusion plants, if AEC is ready to discuss this topic at this time.

(14) 54th GAC Meeting

Handwritten: Hafstad
The following meeting of the Committee has been tentatively scheduled for April 25, 26 and 27, 1963 in Washington.

Sincerely yours,

Manson Benedict
Chairman

Attachment

rather looked to Wells on matters relating to subgroup #1 as well as #3. I told Kitchen that I have asked Ramey and Palfrey to follow the Nassau Agreement for the AEC, with Ramey's having primary responsibility. I said that I would talk with both of them and also with Ink to straighten out the lines of responsibility.

Commissioners Ramey, Palfrey, Haworth, and I hosted a working luncheon which was attended by Eugene Zuckert, Brockway McMillan, Lieutenant General Blanchard and Gerald Johnson (DOD), Jim Webb, Hugh Dryden, Bob Seamans (NASA), Finger, Luedecke, Price, Hollingsworth, Pittman, Nelson Sievering, Joseph Lieberman and Fritsch. We discussed the Commission's SNAP study and interagency nuclear aerospace safety problems and methods of solution.

I attended a CIA Briefing of the JCAE at the Capitol. McCone briefed them on Soviet tests, submarine capability, French submarine and weapon capability, Chinese capability, etc.

Upon my return to the office I called Bundy to tell him I had just returned from the Capitol where McCone is briefing the JCAE. Since the President will be meeting with the Committee on Friday (January 18th), I wanted to pass on to him questions that the Committee has. I said they are probing to find out what has been promised with respect to nuclear submarines. Bundy said that nothing has been promised. I said I told them that it was not part of the agreement, but rather, a separate consideration, and that it would be some four years before any technical information changes hands. I said there was discussion on how long it will take France to arrive at this knowledge on her own and that they were very interested that it would be about 1974-75 before France's thermonuclear effort could be wedded into the Polaris system--it will be that long before they can perfect two-stage weapons that will be light enough to be used with the Polaris.

In summary, I said that the extent of the JCAE questioning has been: what has been promised, how far has it gone, the time scale, etc. Bundy said that I should plan to attend the JCAE meeting with the President. In the meantime he will check with the President and, if the President feels that I should not attend, Bundy will let me know.

Jerry Johnson called and said that in recent weeks he has talked to Eugene Wigner, Chuck Dunham and Al Weinberg regarding the proposal of development of a civil defense laboratory. Last week when Eugene talked with Harold Brown, he advised him that I had said, if the DOD asked AEC, we would allow Oak Ridge to set up such a laboratory with DOD money. I told Jerry I can see many advantages, but we still have to regard it as something under consideration. The important consideration is whether DOD wants us to do this. Jerry said that Harold Brown thinks the project has merit and Jerry will prepare a letter to us expressing DOD's interest and request advice on appropriate steps to be taken.

Carl Kaysen called to ask if the AEC will consider the impact of changing the date set for submission of data for a decision on tactical nuclear weapons from March 1st to April 15th or June 1st as two alternate dates. He suggested we might wish to get in touch with Jerry Johnson and perhaps someone at the White House who is knowledgeable, such as, Spurgeon Keeny. I said I wouldn't want to give him an answer now but we will respond. Carl said he would like consideration of some alternative apart from what Cy Betts would normally consider productive practice (assuming Cy is the person in AEC who will submit the material) because as he (Carl) sees it, the inefficiency of making the wrong decision is much greater. I said I don't know the answer either. I invited him to join our people on their visit to the Enterprise on the 30th. He said he wants to visit and will keep the date in mind.

We received a letter from the President approving the joint Gilpatric-Seaborg recommendation of January 3rd regarding the FY 1965 weapons stockpile, which await the result of the DOD study due March 1st.

The President also approved the transfer of needed information to non-military NATO personnel as requested by the State Department, despite the fact that AEC did not initially concur.

I sent a telegram to Samuel L. Anderson, Chairman, David Starr Jordan High School Alumni Association, expressing my delight at being chosen for the alumni award, and my regrets at not being able to be present on January 18th.

Wednesday, January 16, 1963 - Germantown

At 9:30 a.m. I gave a talk, "The Atom's Promise," at the eleventh annual Women's Forum on National Security, which was held in the Presidential Ballroom of the Statler Hilton Hotel. I was received by Mrs. Dorothy Mann and introduced by Mrs. Ollie L. Koger (President, American Legion Auxiliary and Chairman of the Forum). Several hundred women were present in the audience.

I had lunch in the cafeteria with George Quinn, Frank Baranowski, John Vinciguerra and Arnie Fritsch to discuss the problems of our contract with Nuclear Fuel Services (NFS). This discussion was continued in Commission Meeting 1908 which lasted three hours. The division of opinion concerns whether NFS' proposal to operate a private facility for nuclear fuel reprocessing is technically and economically sound. The AEC will go ahead and guarantee them 125 days a year load if the contract difficulties can be ironed out. The Commission is motivated by a desire to get this part of nuclear power into private industry. The Commission requested the draft letter to Mr. Runion be revised according to the discussion at the meeting.

The Commission approved air force safety rules, and approved the AEC-DOD agreement on SNAP devices for military space vehicles.

Thursday, January 17, 1963 - Germantown

I called Harold Brown and said that he and Secretary McNamara might be interested to know that we have just heard the press learned of my letter to Secretary McNamara regarding development of a reactor suitable for powering a four-reactor carrier. I said this is not a case of where only one newsman has it but, rather, several have it. Brown said, although the paper is Confidential/DI, he doesn't think this will create any great problem, unless the JCAE makes an issue of it. I said I am furnishing JCAE with a copy of the letter.

I talked with Gary Higgins and John Kelly about the pre-COACH shots for producing heaviest transuranium elements scheduled for February and later in the spring.

I had lunch in the cafeteria with Abbadessa, Howard Brown, Henderson and Ink to discuss government-wide cost principles which will be the basis for discussion at the BOB tomorrow.

At 2:30 p.m. I presided over Information Meeting 234 (notes attached).

The President sent his 1964 budget message to Congress today--\$98.8 billion **063**

I attended a reception given by Eugene Wyman (Chairman, Democratic State Central Committee of California) honoring all Democratic chairmen and vice chairmen of all States, which was held in the Burgundy Room of the Sheraton-Park Hotel.



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

COPY NO. 15

January 17, 1963

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INFORMATION MEETING 234

2:30 p.m., Thursday, January 17, 1963 - Chairman's Conference Room A-457

1. Letter to Mr. Runion re NFS Proposal

Approved, as revised. (Henderson)

The General Manager said he and Mr. Hollingsworth will meet with Mr. Runion tomorrow morning to discuss the issues in the contract negotiation. He said that AEC staff have been instructed that there is to be no communications with the companies at interest during the continuing negotiations by the Board.

2. Letter to the Joint Committee re Government Assistance in the Atomic Energy Program

The General Manager discussed briefly the changes made during review with Mr. Ramey, and the Commissioners approved the letter for transmittal. (Henderson)

3. Letter to the BOB re Analysis of Plutonium Requirements Through 1972

In response to the Chairman's request, the General Manager said a study outlining several cases will be completed by April 1. The Chairman said Mr. Fred Schuldt, BOB, had referred to the Chairman's December 31, 1962 letter to Mr. Gordon re Plutonium 238 and Curium 244 requirements and had suggested reference to these in the letter being prepared for the Bureau. In addition, the letter is to refer to the possible requirements for Americium 242 and Curium 245.

4. AEC 374/104 - Weapons Development

Noted for discussion next week. (Secy)

5. AEC Charge for Fuels in SNAP Devices

The Chairman suggested reference to this matter in the SNAP study. (Pittman)

6. Chairman's Letter to Secretary McNamara re Naval Nuclear Ships

064

7. Production and Requirements as Related to March 1 Weapons Study

The Chairman reported briefly on the request from Carl Kaysen with respect to (a) due date of June 1 on the tactical study, and (b) effect of component production levels through an extended period. The General Manager said he would look into the matter quickly and inform the Chairman tomorrow how long such a study would require. (Betts)

8. Letter from the President Approving FY 65-Weapons Stockpile

Noted. The General Manager said he was checking a possible error.

9. Letter from Admiral Mustin re JTF 8

For review and discussion. (Betts)

10. Commissioners January 22 Meeting with Joint Committee, 2:30⁴⁰ p.m.

The Chairman discussed briefly a proposed agenda for the informal meeting.

11. Draft Letter to Mr. Ramsey re Harvard Contract

Mr. Palfrey discussed briefly some alternative language re contract controls and the Commissioners suggested further discussions by Commissioners Haworth and Palfrey with Messrs. Traynor and Vinciguerra looking to discussion of this matter further next week. The Commissioners suggested consideration of an extension of the policy approved by the Commission in its discussions of AEC 89/10 and AEC 89/12, and reiterated their request for a study in depth of the background and development of AEC policy for contracts of this nature. (Traynor/Vinciguerra)

12. President's Meeting with Joint Committee Friday, January 18, 10:00 a.m.

The Chairman said he expected to attend.

13. Proposed Atomic Industrial Forum Questionnaire

The General Manager noted copies of the proposed questionnaire have been distributed to the Commissioners and requested Commissioners comments tomorrow. The Chairman noted the tentative Commission meeting with the Atomic Industrial Forum scheduled for February 21.

14. Civil Defense Program at ORNL

The Chairman discussed briefly his conversations with Dr. Gerald Johnson and Dr. Wigner on this subject, and noted that Dr. Johnson will transmit a letter to the AEC stating the DOD's interest in this program.

15. Hobart Taylor's January 9 Letter re January 23 Briefing at 10:00 a.m., Department of Commerce Auditorium re Equal Employment Opportunity

The Chairman suggested Commissioner Palfrey or Commissioner Ramey attend with appropriate staff. (Traynor)

16. Letter from Nuclear Science & Engineering Company re AEC Isotope Policy

The Chairman discussed briefly the letter to Mr. Aebersold and the Commissioners had no objection to the General Manager's recommendation to issue the annual catalogue for calendar year 1963, noting that a discussion paper on the matter of pricing policy is in preparation for early discussion. (Aebersold)

17. Letter from Mr. Mienke, Univ. of Michigan, re Participation in Overseas Conferences

The Chairman requested an appropriate response be prepared for his signature. (Vinciguerra/Wells)

18. Letter to the Joint Committee re Nuclear Test Plans

The Commissioners noted the revision by the General Manager and the Chairman said he would sign the letter today. (Henderson)

19. Task Force Meeting re Proposal for Reactor Desalinization Program

Dr. Wilson reported briefly on his meeting this morning with Roger Revelle and others at which Messrs. Weinberg, Spivak and Hammond briefed the group on the proposal. It was agreed that after appropriate study, the group will meet again in six weeks to consider the matter further. (Pittman)

20. Dr. Wilson's Visit to the Pratt & Whitney SNAP 50 Facilities

21. Univ. of Chicago Conference on Isotope Labelling of Drugs

The Commissioners accepted the General Manager's recommendation for AEC support subject to a check of Rockefeller Fund support.

22. Supply of Fuel for SELNI Reactor

The General Manager discussed briefly SELNI's proposal for U.S. supply of U235 over a period of 20 years. The U.S. commitment of U235 under the U.S./Italian Bilateral Agreement is to be negotiated down and the General Manager noted that the Joint Committee staff has been informed of the proposed course of action. (Wells)

23. PLUTO Program Funding

The General Manager noted that under the President's budget forwarded to the Congress today, the Coors contract must now be terminated. The Chairman suggested notification to Coors be held until tomorrow.

24. January 28 NASA Hearings on Patent Policy

Mr. Ferguson reported that Congressman Holifield will testify and has asked for information from the AEC.

25. Agenda for the Week of January 21

Approved, as revised.

PRESENT

Dr. Seaborg	Gen. Luedcke
Dr. Wilson	Mr. Hollingsworth
Dr. Haworth*	Mr. Henderson
Mr. Palfrey	Mr. McCool

DISTRIBUTION

Commissioners
General Manager
General Counsel
Secretary

*Partial attendance

W. B. McCool
Secretary

Friday, January 18, 1963 - D.C.

From 10 a.m. to 10:40 a.m. I attended a meeting of President Kennedy and the JCAE in the Cabinet Room of the White House. Others present were: Congressmen Holifield, Price, Thomas, Aspinall, Morris, Hosmer, Westland, Senators Russell, Anderson, Jackson, Hickenlooper, Dirksen, Aiken, Bennett, Pastore, Bundy and Conway.

The President went over the history of relations with de Gaulle and the basis for his antagonism to the U.S., Great Britain and NATO. He also described the possible ambitions of the West Germans toward obtaining a nuclear capability of their own, although, according to their 1954 pronouncement, they wouldn't build this themselves; however, they might acquire it through alliance with a country like France or through purchase of weapons. He made it clear that the Nassau Agreement contemplates selling the Polaris missile, but not the warhead or the submarine, to Britain and France.

The President said that it isn't a choice between the status quo, which is satisfactory to the U.S., and a new situation such as a multilateral force. The status quo is not satisfactory to France and, to a lesser extent, is not satisfactory to other NATO countries; therefore, a change must be made. The concept of a multilateral force is meant to preclude the development of a number of individual national independent capabilities or the development of a substitute Germany-France independent nuclear capability.

He explained that the talks Gilpatric took part in last summer are in addition to the Nassau Agreement and involve possible sale of a Skipjack submarine to France in 1967. The training of French nationals is to begin about a year earlier. The President expressed the view that Russian submarine technology should be beyond that of the Skipjack by that time, making the risk of disclosure of information minimal.

The President said that the point of McCone's briefing of the JCAE on Tuesday, January 15th, was that the French might develop their own nuclear submarine as early as 1967, in which case our sale of a Skipjack to them would not be important from the standpoint of revealing technical data.

Congressman Westland asked about the status of the possible sale of Pershing missiles to Germany, with warheads controlled by American forces. The President said he will check with Gilpatric since he is not sure of the status. Westland expressed the view that the sale of Pershings and weapons such as Honest Johns to Germany would probably satisfy them and that so far as he could see, the only reason for making the Nassau offers was to try to buy from France.

Congressman Hosmer expressed concern that, if we placed American missiles and warheads in French hands, it would be impossible for the Russians to distinguish them from American-launched missiles; whereas, if the French had to develop their own missiles, radar might make such distinctions possible. He also pointed out that Polaris missiles, sea-launched from ordinary French or other national surface ships, would distinguish them, in the eyes of the Russians, from submarine American-launched missiles.

Holifield indicated that he doubts the French will have a nuclear submarine by 1967, and since the Russians' nuclear submarines are only about 50% as good as ours, the transfer of a Skipjack to France will probably place valuable data in the hands of the Russians at a useful time. He acknowledged, however, that there is value in preventing the build-up of independent national nuclear capability; thus,

this all has to be balanced against the value to the U.S. of a multilateral NATO nuclear capability.

Senator Anderson expressed the view that the Russians probably would have their technology in sufficient shape by 1968 so that any transfer of American information to them through the French wouldn't be too important. He made the point that perhaps we should be more straightforward and offer to sell the French a nuclear propulsion plant using this means to find out whether this is their intended use for the Skipjack (to learn to build such a propulsion plant).

The President indicated that he would get back to the JCAE if things moved in the direction of selling the French a Skipjack submarine. He indicated he would come back to the Joint Committee before any final agreement was made with NATO regarding a multilateral force, employing American warheads.

After the meeting with the JCAE I met with the President and Bundy. I indicated to them that it would be important for the President to meet with Admiral Rickover to enlist his support. The President indicated he would do this.

I spoke with Senator Jackson who said he would like to consider visiting Hanford on Friday, March 15th, if possible, but would leave it open. In the event we visit, we will fly out in a special plane Thursday afternoon.

I had lunch with Jim and Alice Robinson at the University Club.

At 2 p.m. I attended a meeting at the Bureau of the Budget of representatives from several government agencies regarding uniform cost principles. (Abbadessa's memorandum on this meeting is attached.)

Lee Haworth and I met with Frank Gifford and Dave Hall of the ARCS to discuss their role and general problems in nuclear aerospace safety.

Pete, Lynne and Dave went to the Democratic Party's Gala (\$100 a ticket) with Cecil King. The gala was held at the D.C. Armory and is in celebration of the second anniversary of President Kennedy's inauguration. President Kennedy and Vice President Johnson spoke. Carol Channing, Carol Burnett, George Burns, Gene Kelly, Kirk Douglas and others took part in the program.

Gertrude and Milton Chernin (Dean, School of Social Welfare, Berkeley) had dinner with us and brought us up to date on University of California affairs.

Saturday, January 19, 1963 - D.C.

I worked at the office until 3 p.m. Ramey and Palfrey attended a State Department meeting with Rusk, McNamara, Bundy and others on the implementation of the Nassau Agreement.

I called Carl Kaysen to tell him that the change of date for information on the tactical nuclear weapons material to April 15th wouldn't hurt very much, but that June 1st would.

I visited Howard Brown at Georgetown Hospital. He is doing fine.

Bundy called me at home to say that Khrushchev is going to release his correspondence with President Kennedy to the Press. In this correspondence the President had replied to Khrushchev that three on-site inspections were not sufficient.

UNITED STATES GOVERNMENT

Memorandum

TO : The Files

DATE: January 19, 1963

FROM : *John P. Abbadessa*
John P. Abbadessa
Controller

ENCL. BY DOE
NOV 86

SUBJECT: MEETING AT BUREAU OF THE BUDGET RE UNIFORM COST PRINCIPLES

On Friday afternoon, January 18, 1963, at 2:00, a meeting was held among representatives of several government agencies at the Bureau of the Budget on the captioned subject. Attending the meeting were the following:

Bureau of the Budget

Elmer Staats
William Armstrong
Ellis Veatch
Fred Schuldt
Hugh Loweth
John Holden
Harold Seidman

Atomic Energy Commission

Dr. Glenn T. Seaborg
Dwight Ink
John P. Abbadessa

General Services Administration

Bernard Boutin
Charles Gasque
Lloyd Dunkle

Department of Defense

Thomas Morris.
James Bannerman

National Aeronautics and Space Administration

Albert Siefert
George Vecchietti

Office of Science and Technology

Dr. Jerry Weisner
David Beckler

Mr. Staats opened the meeting by briefly reviewing the government-wide effort to achieve uniform cost principles up to the date of the BOB draft report on the subject (August 6, 1962). He started the discussions by referring to page 6 of the draft report and discussing the differences among the various agencies in the allocability of independent research and development. He stated that this category of cost seemed to present the most difficult problem in achieving uniformity. Mr. Bannerman for DOD and Mr. Abbadessa for AEC explained the procedures followed by their respective agencies. Dr. Weisner stated that while he felt that independent

R&D was a legitimate expense for government agencies to reimburse under their contracts, he had a distinct impression that the total amount of money spent by the Government for this activity was too large, that the total research effort was not of a sufficiently high quality, and that much of the research was for commercial interest rather than for Government interest.

Mr. Abbadessa updated the group by explaining the events that have occurred since the BOB draft report. Primarily, this effort involved contacts between AEC and DOD during which agreement was reached on a definition of bidding costs and agreement in principle was reached with respect to reimbursing independent R&D costs. Basically, the agreement in principle involved AEC changing its present test of benefit to the contract to that of benefit to agency program, and DOD accepting the test of benefit to agency program in lieu of its present test of relevancy to Government interest. A subcommittee has recently been designated by AEC and DOD to draft language which will implement this agreement. Mr. Abbadessa also explained that it was a common practice of the two agencies to make use of advanced agreements where independent R&D was a significant item of reimbursement, and that AEC and DOD had agreed that it might be desirable to conduct joint negotiations with major Government contractors to determine a reasonable program of independent R&D for Government support and then to apportion the cost between the Government agencies.

Considerable discussion was held with respect to the policy the Government should follow in reimbursing independent R&D.

Mr. Bannerman stated that the DOD position was that the important thing to do was to determine the dollar level of expenditure for reasonable R&D programs without any concern as to what the R&D effort involved and then to rely on acceptable methods of allocation to determine DOD's share of the cost. Mr. Staats stated that he did not consider such an approach to be adequate and that he felt a review should be made of each project in determining the amount to be reimbursed by the agency. This approach is generally the one presently followed by AEC.

Dr. Weisner also was not satisfied with the DOD position and stated that he felt it was essential that a determination be made of the quality of the research subject to reimbursement.

Dr. Seaborg stated that he felt there should be a determination of the scope of the research subject to reimbursement.

Mr. Bannerman stated that the service branches of DOD had

recently advanced a couple of new approaches in determining the level of expenditure to support which he believed merited consideration.

The consensus of the discussion was that DOD, AEC and NASA should continue their efforts to obtain uniformity in cost principles. Also, with respect to independent R&D, the cost principle should provide for relevancy to the agency program, a definition of the scope of the research, and a review of the quality of the contractor's research effort in determining the amount to be reimbursed under the contract.

Dr. Weisner said he would like to know the total amount each of the agencies paid for independent R&D. A figure in excess of \$200 million was mentioned for DOD and \$5 million for AEC. (I will circulate our field offices and advise Dr. Weisner of our level of support.)

Mr. Abbadessa explained that part of this package was a new definition of bidding costs. He stated that bidding cost was to include the cost of physical preparation and publication of technical proposal documents and also the cost of preparation and publication of cost and such other data necessary to support the contractors bids and proposals. He stated that specifically excluded from bidding cost were the cost of independent research and development and the cost of engineering. Under this definition bidding cost would be a very nominal amount, and the problem that DOD has been encountering whereby contractors have been including research and development in their bidding costs and the bidding costs reimbursed by DOD have skyrocketed would be solved. Under the new approach all independent research and development would be reimbursed under only one category of cost. Mr. Staats stated that this approach was very good.

Mr. Siefert discussed the special problem NASA had with respect to not allowing independent R&D on contracts awarded in response to unsolicited proposals. He did indicate, however, that he would be pleased to cooperate with AEC and DOD in achieving uniform cost principles. The NASA problem was not completely understood by those present, and I plan to phone Mr. Siefert to see if I can better understand the problem and assist in a solution.

Mr. Staats asked Mr. Boutin what his thoughts were on this subject. Mr. Boutin stated that GSA has not been particularly involved in this effort but that AEC and DOD have kept them informed. He

stated that based on the day's discussion there seemed to be quite an area for compromise on both sides of the issue and that he believed uniform cost principles could be attained and were desirable. GSA's participation which was limited to the foregoing was quite satisfactory to me. One of our major concerns with the BOB draft report was the recommendation that the AEC turn over its responsibility for developing cost principles to GSA. This recommendation was not discussed at all, and it appeared that the approach presently being followed of the agencies working together and promulgating their own cost principles was acceptable to those present.

Mr. Staats closed the meeting by indicating that he desired for this project to be finished as expeditiously as possible even though he appreciated it was a difficult task. He also commented that he felt the effort being made by the agencies had resulted in considerable progress. He asked for an estimated date when the work underway could be completed. DOD accepted the responsibility that they probably were the ones that were holding up the program and Mr. Bannerman indicated he felt they could complete their work within a very few weeks.

cc: Chairman Seaborg
Commissioner Haworth
Commissioner Palfrey
Commissioner Ramey
Commissioner Wilson

A. R. Luedecke, GM
R. E. Hollingsworth, DGM
Dwight A. Ink, AGM
J. F. Hennessey, Gen. Counsel
John V. Vinciguerra, Dir., DC
Walker E. Campbell, OC
Ralph Boyer, OC

Sunday, January 20, 1963

I read AEC papers and worked on an interview article for G.E. magazine.

Monday, January 21, 1963 - D.C.

At 9:40 a.m. I presided over Information Meeting 235 (notes attached).

At 11 a.m. the Commission met with the East Central Nuclear Group consisting of Philip Sporn (Chairman, R & D Committee), Walter Sammis (President, Ohio Edison Company), Lee Rice (President, Allegheny Power System), George Armstrong (President, Louisville Gas & Electric), William Webb, Paul Dragonnis, Gerald Fields (R & D staff) and G. F. Trowbridge, Attorney. Their study group has found the pressurized heavy water reactor (7.4 mil/kwh), the boiling heavy water reactor (7.4 mil/kwh) and the gas-cooled heavy water reactor (9.4 mil/kwh) not competitive. They have decided to study the Westinghouse (super-critical steam, 40% effective, 1000 MW) and Babcock & Wilcox (spectral shift, Universal Pressure Reactor System, 320 MW) reactors which promise 4-5 mil power.

I had a call from Ernest K. Lindley in connection with tonight's meeting of the Cosmos Club, which I will not be able to attend. He asked whether I would object to his stating that I favor reinstatement of the twelve members who resigned their membership over the segregation issue a year ago. He said he has similar authorization from the Chairman of the Tariff Commission and from Katzenbach of Justice. I said I have no objection.

I had lunch at the Cosmos Club with Haworth and voted in the annual election for a Board of Governors that favors desegregation.

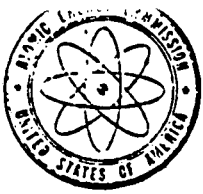
Bundy called and said that, as part of the tactics in connection with the present test ban negotiations, the President is inclined to think it would be better if we held off underground testing for a couple of weeks, and wanted to know how much of a problem this will be to the AEC. I said my first question would be whether this is a step in going to an indefinite week-by-week, month-by-month moratorium during endless discussions. I said everyone would begin to worry about that. Our own preference would be to continue testing while the talks are going on. Bundy said that this has been the President's feeling also, but he now asks the question in terms of two weeks. I said that two weeks would cause us no harm. He said he would report this back to the President. Also, he wanted to be sure we understand that we have a 48-hour hold order.

Finney called to say he heard that my January 7th letter to DOD on reactors for nuclear surface ships was "kicking around," and he "just wanted to know what it is all about." I said I was sorry but there is nothing I could tell him.

I called Harold Brown regarding the PLUTO finding. I said that Secretary McNamara said it would take about \$2 or \$3 million, and I said \$4 million, and McNamara said some of this support might come from DOD contingency funds. I said what we need now is some indication to the Bureau of the Budget this might happen. Brown said that DOD has informally conveyed that information to BOB, but he will call Shapley and tell him that this is at least a possibility. He said he is not prepared to say that DOD will actually commit, say \$2 million, because they want to use this as a way of finding out how anxious the services are to have this happen when their money is involved.

Helen and I attended a white tie dinner at the White House honoring the Vice President, Speaker John McCormack and Chief Justice Earl Warren.

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

ENCL. BY DOE
NOV 86

COPY NO. 15

January 21, 1963

INFORMATION MEETING 235

9:40 a.m., Monday, January 21, 1963 - Chairman's Conference Room ~~457~~ *DC Office*

1. Letter to Joint Committee re Nuclear Test Program

The Chairman said he was holding transmittal of the letter subject to the Commissioners further review. When transmitted a copy is to be sent to the White House. (Henderson-Betts)

2. President's Exchange of Correspondence with Premier Khrushchev re Nuclear Test Ban

The Chairman discussed briefly Mr. Bundy's telephone call with respect to test plans.

3. Weapons Study and Component Production Effects

The Chairman said he had informed Mr. Carl Kaysen, White House Staff, of the preliminary estimates as related to him by the General Manager. He informed Mr. Kaysen that the results of the study should be available in a matter of two weeks. (Betts)

In response to Mr. Ramey's query, the General Manager said he would determine if a study of "limited war" had been made. (Betts)

4. President's January 18 Meeting with Members of the Joint Committee on Atomic Energy

The Chairman discussed the President's meeting with the JCAE at which he and Mr. Bundy were present. The Nassau agreement and the development of exchange programs were discussed and the White House plans to keep the Congress informed as the agreements develop. Mr. Ramey added that in the meetings with Secretaries Rusk and McNamara which he and Mr. Palfrey attended on the 19th, it was made clear that the White House will follow this matter closely.

5. Nuclear Fuel Services Negotiations

The General Manager reported that Mr. Runion expects to see him soon on the status of the negotiations.

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6. Commissioners' Meeting with the Joint Committee 2:00 p.m., Tuesday, January 22

The General Manager and Messrs. Ink and Donovan will attend with the Commissioners. Messrs. Pittman, Abbadessa and Wells are to be available. The Commissioners discussed briefly the proposed agenda noting the revision as suggested by Dr. Haworth, and the Chairman will telephone Senator Pastore today to discuss the agenda. The Chairman requested preparation of summary notes on the agenda topics for his use in introducing the various subjects including material on the December 20 decisions and the weapons study. (The Commissioners agreed the Joint Committee should be informed that the latter is in review.) (Ink-Henderson)

7. Laboratory Proposal for January 30 Events

Dr. Haworth said he had discussed with Mr. Carl Kaysen Saturday the laboratory's proposal to use the technique discussed recently with the Commissioners. Mr. Kaysen was receptive to the proposal and requested submission of a letter to the White House. (Betts)

8. Proposed Meeting with Mr. Bhabha in India

The Chairman noted that Dr. Smyth and AEC Staff will not visit India at this time. Mr. Bhabha hopes to visit Washington in Mid-February

9. General Manager's Report on Contamination Clean-Up at Brookhaven

PRESENT

Dr. Seaborg
Dr. Haworth
Mr. Ramey
Mr. Palfrey

General Luedecke
Mr. Hennessey
Mr. Henderson
Mr. Ink
Mr. McCool

DISTRIBUTION

Commissioners
General Manager
General Counsel
Secretary

W. B. McCool
Secretary

Tuesday, January 22, 1963 - D.C.

From 11 a.m. to 11:40 a.m. I attended a meeting of the National Security Council in the Cabinet Room of the White House. Present were: the President, the Vice President, Rusk, Ball, McGhee, Katzenbach, McCone, Wiesner, Foster, McDermott, Dillon, Webb, Wilson, Gordon, Bundy, Nitze, Taylor, Gilpatric, McNamara, and others.

The President said he wanted to describe for the group his impressions of the position of the United States. He described its key positions in NATO and SEATO and said that this is the key to CENTO. He recapitulated the Cuba crisis and emphasized the importance of time in that situation. He said the question was whether there should be a quarantine or an air strike. He said that there was a period of 48 hours when the Soviets were debating their course and were indecisive and that, if time had not been available, something drastic might have happened. The United States is now in a position where it might respond to some crisis like Berlin by moving against Cuba which might be more satisfactory than the use of nuclear weapons.

The President described the situation in Europe, particularly as it involves the French. He said that the United States has had the choice of setting up a direct relationship with the French, but instead decided on the more successful NATO approach. The President said that last year during their discussions De Gaulle told him that after the Algerian situation was settled he would have some suggestions to make on NATO. He thinks the De Gaulle attitude is inevitable and that, had we given him nuclear weapons, it would have been even worse. De Gaulle's desire is that France can somehow recover her historic role, which explains his somewhat mystic attitude; thus, when turned down by the United States and the United Kingdom for direct agreements, he turned to West Germany.

The President said that Europe will be more stable if the United Kingdom can become a member of the Common market, which will strengthen NATO. De Gaulle wants to dominate the six countries both economically and by being the only member of the group who has nuclear capability. The President said the events of the last ten days emphasize the value of the multilateral concept. He said the task of this Administration is to work out a solution in Europe even though De Gaulle opposes nearly everything--NATO, SEATO, United Nations, our position in Vietnam, etc.

The President went on to speak about our economic situation and said that the domestic deficit doesn't bother him as much as the international deficit does. It will get serious if we begin to use up our last \$12 billion. He said the balance of payments hemorrhage is serious. He said there is no reason why the United States should have to maintain six divisions in Europe whereas the others maintain only one-half that. The United States has lost economic power over these countries and, therefore, needs to use its atomic power effectively in the coming negotiations. Europe won't do anything for the United States which isn't to the advantage of Europe. We must get our economic house in order.

With respect to the neutral nations, the President said that we have been criticized because we don't distinguish between the neutrals and our allies and used the example of India and Pakistan. He pointed out that India has one-sixth of the world's population and Pakistan is not basically sentimental towards the United States. Both want to exploit our power to their own benefit. Our aim must be the unsentimental one of building that subcontinent to the position where it can defend itself. Perhaps the financial aspect of this shouldn't be called "aid;" perhaps the old term "mutual security" is actually better.

The President pointed out that the Communists maintain control over a country when they get it, but they haven't been achieving control in many instances. He said

that the position of the United States should be a holding action to maintain positions as long as possible. We don't know, for example, how the Soviet-Chinese dispute will come out; therefore, although it seems endless, we should maintain our aid. A nominal cut like 20% will be all right, but it must not be more.

The President then went on to speak about the domestic problem of the budget. He pointed out that the 1964 budget will have a \$9 billion deficit which, with the \$3 billion tax cut, will make a total of \$12 billion. He said, however, that except for defense, space, and the interest on the debt, there will be less increase than there was during the last three years of the previous Republican Administration. He said that the tax bill is important. A recession would have a bad effect on our gold reserve and a bad psychological effect. He referred to the Khrushchev speech in which Khrushchev indicated an understanding of our economic situation and hoped to exploit it. He pointed out that our national debt has increased only seven percent in 15 years and all of the individual states have a worse situation. He knows that the military is disturbed due to the cancellation or curtailment of the B-70, Nike-Zeus, and Skybolt programs, but he said there is a limit to what the United States can do. He pointed out that, to a large extent, the French bear their burden abroad, whereas others do not. He also said that actually De Gaulle is basing his policy on the power of the United States.

The President then went on to talk about the test ban and the recent exchange of correspondence with Khrushchev. He said that a test ban is very important. An important consideration here is the power that the Chinese would have with a nuclear weapon and how they would use it. If a test ban treaty can lessen this prospect, then we should be very careful before turning it down; and he suspects the Soviets are beginning to feel the same. He said a test ban involving only the Russians and the United States wouldn't be worth very much; but, if it affects China, it will be worth very much indeed. It is, therefore, much more important than it was a year or two ago. He indicated that McCone agrees with this point of view.

The President closed by saying that he is pleased by the happy relationships which exist in this Administration, and he hopes that they can be maintained.

I then met in the President's office with the President, Rusk, Foster, Bundy, Kaysen and Wiesner. The President indicated that he would like the AEC to defer underground testing for two or three weeks while the possibility of a test ban on the basis of the exchange of Kennedy-Khrushchev letters is explored by Foster and his group. I indicated that this would have an adverse effect on the laboratories, and possibly on some Commissioners because of the feeling that this might be the first step toward an unpoliced moratorium. I indicated that it might be better if an actual length of time for this deferral not be designated. Foster indicated that he might learn the prospects for a test ban before two or three weeks' time. It was recognized that the AEC had not been testing during the last week or two because of labor troubles; thus, a month has passed since the last test, and the announcement of a test at this time would be particularly unfortunate so far as the negotiations are concerned. There was general agreement that the AEC should defer its next underground test until an assessment could be made of the prospects for successful negotiations.

I called Kermit Gordon to discuss the spectral shift reactor which is in the FY 1964 budget for \$35 million and the restrictions placed on it, and whether it will be necessary to go for what we call a third round approach, followed by a second round approach in sequential order. I said, if we can't get satisfactory takers on the third round (participation by private utilities vs. second round where we build the reactor ourselves and public utilities furnish the conventional conversion facilities), we will have lost about seven or eight months. The AEC staff is

thinking about going out simultaneously on the two approaches. I said that in discussions between the BOB and AEC staffs, the BOB favors our trying the third round approach first. I suggested that our General Manager talk with Staats about this in more detail, and we could then discuss it further. This was satisfactory to him.

At 2 p.m. the Commissioners met with the JCAE in executive session (Room AE-1, Capitol) to discuss: 1. the status of the NFS proposal, 2. the German KRB Euratom proposal, 3. the FY 1964 budget, 4. reactor topics--Power Report, SNAP study, PLUTO status, maritime follow-on program, aerospace safety determinations and 5. weapons development.

I attended a reception by the House Committee on Science and Astronautics honoring the Advisory Panel on Science and Technology (Harold Urey, Albert Noyes, Lee DuBridge, etc.) held in the Longworth House Office Building.

The other Commissioners and I hosted our annual dinner for members of the Joint Committee on Atomic Energy at the Metropolitan Club.

Wednesday, January 23, 1963 - D.C. - Kansas City

At 9:30 a.m. I presided over Information Meeting 236 (notes attached).

At 10:30 a.m. the Commission met with representatives of the Florida West Coast Nuclear Group: William J. Clapp (President, Florida Power Corporation), E. H. Dunn (Vice President, Florida Power Corporation), George Kinsman (Vice President, Florida Power & Light Company) and F. S. Black (Executive Vice President, Tampa Electric Company) to discuss with them their interest in nuclear power; it is marginal at present because energy costs only .30 cents per million BTU.

At 1:45 p.m. I presided over Commission Meeting 1909. The Commission approved the following: 1. Minutes of Meetings 1881, 1882, 1883, 1886, 1887 and 1888. (Approved through 1886, subject to comments of Commissioners Ramey and Palfrey.) I will reschedule the Minutes of 1887 and 1888. 2. Approved employment of Professor Aage Bohr at LASL. and 3. Uranium enrichment service was approved as revised. The Commission adopted the principle of toll enriching, dependent on the adoption of private ownership. The Chairman noted the JCAE had been advised of the current AEC study on the weapons spectrum.

Accompanied by Arnie Fritsch, I left for Kansas City on United flight 767 at 4:45 p.m. and arrived there at 6:30 p.m. I was met by Walter Youngs (Area Manager, Kansas City Area Office), Eldred E. Evans (General Manager, Bendix Corporation, Kansas City Division) and Larry Gise (Department Manager, Albuquerque Operations Office). Upon arrival I was interviewed by the press and Channel 4.

We had dessert and coffee at the Bellerive Hotel where I spent the night.

Thursday, January 24, 1963 - Kansas City - Washington

I toured the Bendix plant, which manufactures non-nuclear weapons components for the AEC. It employs 7,500 and has a tremendous use of automation. The Military Liaison Committee also toured the plant--Major General Broadhurst, Rear Admiral Ellis, Brigadier General Richardson, Brigadier General Ryder, Colonel Thorne, Colonel E. E. Baker, Colonel Hines, Captain Conrad, Colonel B. O. Baker, Colonel Oswald, Colonel Warthman, Lieutenant Colonel Nash, Commander Margaret McGroarty, Lieutenant Colonel Price and Captain Allen. Also in the group were some DOD people--Rear Admiral Gannon and about six or eight others--General Betts, Youngs, Evans, Gise and Fritsch.

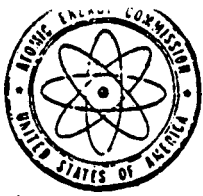
Seaborg's visit to Bendix plant, Kansas City, Missouri, January 24, 1963



L to R: Charles A. Slater, Engineering, Bendix Kansas City; Carrol Meador, Manufacturing, Bendix Kansas City; Thomas Gray, Manufacturing, Bendix Kansas City; E. E. Evans, General Manager, Bendix Kansas City, Seaborg, L. P. Gise, AEC, ALO



L to R: (Sitting) L. P. Gise, AEC, ALO; C. Voorhees, AEC, Seaborg, W. C. Youngs, Kansas City Area Manager, AEC
(Standing) T. C. Wallo, AEC, KCAO; E. C. Althaus, AEC, KCAO; D. D. Davis, AEC, KCAO; J. P. Wright, AEC, KCAO; V. Zachman, AEC, KCAO; W. M. Hayward, AEC, KCAO; W. N. Keyes, AEC, KCAO



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

UNCL. BY DOE
- NOV 86

COPY NO. 15

January 23, 1963

INFORMATION MEETING 236

9:30 a.m., Wednesday, January 23, 1963 - Chairman's Conference Room
D. C. Office

1. State Department Cable to American Embassy, Paris re Summary US/USSR
Test Ban Discussions

The Chairman noted the usefulness of this type of report and Dr. Haworth said he would discuss procedures with Mr. Carl Kaysen.

2. Minutes of the President's Meeting with the Joint Committee, January 13

The Chairman noted availability of the minutes for the Commissioners to review. (Henderson)

3. Visit of N.S.SAVANNAH to Houston, Texas

The Chairman spoke briefly about Representative Albert Thomas' request to Mr. Alexander, Maritime Administration, for the N.S.SAVANNAH to visit Houston. Noting Dr. Wilson's remark about the channel to Houston, the Chairman suggested Mr. Alexander in his discussion of the possibility of a visit, de-emphasize the use of nuclear power for channel transit. (Henderson)

4. Draft Letter to Mr. Bell, Agency for International Development

The Commissioners discussed briefly the draft letter re AEC/AID areas of mutual interest and requested circulation of a redraft with revised language on the Tarapur reactor project, with particular reference to the language on competitive nuclear power, and reference to (a) US/AEC exhibits, and (b) examples of cooperation such as the Brookhaven Laboratory program with the Government of Turkey. (Wells)

5. Ambassador Smyth's Possible Visit to India

6. Reference to EOVER Tests in Mr. Finger's New York Speech Today

The White House is to be informed. (Ink)

PRESENT

Dr. Seaborg
Dr. Wilson
Dr. Haworth
Mr. Ramey
Mr. Hollingsworth
Mr. Henderson
Mr. Hennessey
Mr. McCool

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In the afternoon I met with the key people under Youngs in the Kansas City Area Office.

We had an early evening dinner at the plant and afterward I spoke to the Bendix Management Club (750 present) on "The Program of the Atomic Energy Commission." Our hosts included R. P. Wahlstedt, President Bendix Management Club, and T. M. Billings, Chairman, Speakers Committee.

We returned to Washington with the MLC on a DOD Convair, leaving at 8 p.m. and arriving at Andrews Air Force Base around midnight.

Friday, January 25, 1963 - D.C.

At 9:40 a.m. I presided over Information Meeting 237 (notes attached).

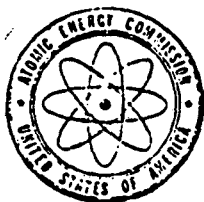
Carl Kaysen called to ask whether I have had any further word on production schedule weapons requirements. He wants to put a date in the letters which the President will send to me and Gilpatric about the new plutonium production targets on the new weapons schedule. I asked if he still thinks April 1st will be impossible. He said he thinks April 1st will be all right. I told him we will get word to him as quickly as possible.

I brought up the fact that we are getting problems in about three different areas regarding our test program: 1. We are having our regular meeting with the MLC next Tuesday, which is a postponement of the December meeting, and one of the items for discussion is our plans for testing. I said that Jerry Johnson chairs this meeting, and I don't know what he has been told. Kaysen asked who the members of the Committee are, and I said they are all military--no outsiders. 2. I said the JCAE is requesting a briefing from us now (which is really traditional at this time of year) rather urgently, since they had the CIA briefing last week. In this connection, I said we have set the date and have asked for a postponement, but they are pressing. 3. Regarding the Nevada test site--up until the electricians' strike was settled, we have been pushing, but about Monday this will be hard to do as we can't continue to just dig holes. I also mentioned Bromley Smith's call while I was away. He asked if I talked with any newspaper men after the NSC meeting on Tuesday. Since the Washington Post and the western edition of the Times carried articles by Tom Wicker and Carroll Kilpatrick which gave a pretty good resume of the entire meeting, he said everyone who attended the meeting was asked.

I told him I have not talked with anyone, but I expected to talk with Joe Alsop this afternoon; however, I do not know what he wants. Kaysen said he thinks perhaps he will want to talk about the test ban and go over the technical background. Kaysen thinks it will be well to give him some sensible material and suggested meeting this afternoon at 5 p.m. to go over these problems. Kaysen will call me.

I returned Bromley Smith's call which came just after I left for Kansas City on Wednesday, January 23rd. Bromley said the President asked him to call everyone who attended the NSC meeting on January 22nd and ask whether he has talked to a New York Times or Washington Post reporter on the matters covered at the meeting. I told him I have not talked to any reporter. Smith said he has called everyone (except one person, and he is on his way to Guam) and everyone said no.

Kaysen called me again just before my meeting with Joseph Alsop and suggested I take any opportunity I get to talk about what determines the numbers, etc., without getting into specific numbers. Carl thinks I can indicate the reasons why we went



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

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COPY NO. 15
January 25, 1963

INFORMATION MEETING 237

9:40 a.m., Friday, January 25, 1963 - Chairman's Conference Room, D. C.

1. Chairman's Report on Visit to Bendix, Kansas City, Missouri, with MLC Yesterday

2. 202 Hearings February 19

The Chairman suggested discussion of an alternate date in view of his Chicago commitment. (Henderson/Ink)

3. Private Ownership Legislation

Dr. Wilson commented on the delay of the BOB and the Chairman agreed it is desirable to review the status of the bill. (Henderson/Abbadessa)

4. Weapons Briefing for Joint Committee

The Chairman noted the White House query and Senator Pastore's letter in response to the Chairman's telephone call. The General Manager suggested the briefing could perhaps be held next week, and the Chairman suggested discussion of the matter with Dr. Haworth on his return today. (GM)

5. Senator Anderson's Bill S.45 - to Amend the Atomic Energy Act of 1954, as Amended

6. Letter to Mr. Bundy re NTS Planning

The Commissioners requested several revisions and preparation of a draft for consideration Monday. (Betts)

7. Briefing on Howitzer Devices

In response to Mr. Ramey's query, the General Manager said a briefing could probably be arranged at a time when the laboratory representatives are next in Washington. (Betts)

8. Reports on U.S./U.S.S.R. Test Ban Negotiations

The chairman noted the procedures for circulation of the report to the Commissioners. (Henderson)

9. Sir William Penney's March 28-29 Visit to Washington

The Chairman noted that Sir William Penney and party will visit Los Alamos, Livermore and other AEC installations and would meet with the Commissioners and staff on March 28 and 29. (Wells/Secy.)

10. Stockpile Figures

The General Manager said he thought the error could be corrected in a short letter.

11. Commissioner Wilson's Visit to CANEL Facilities

Dr. Wilson reported briefly on his visit and the developments in research on uranium carbide--stainless steel by Pratt & Whitney, Battelle and North American. The North American report will be circulated for information. (Secy.)

12. Diffusion Plant Planning

Dr. Wilson noted the desirability of an early review and the GAC's request for a report at its next meeting (March 18, 19 and 20 in Sandia and Los Alamos). The General Manager said estimates are in review for commission consideration.

13. Report to Joint Committee re Committee Study of Reactor Proposal for Desalinization Program

The Commissioners agreed the Joint Committee should be informed. (Pittman)

14. Release of Information on the Aardvark Event

Dr. Wilson noted Mr. Frank Press' query re declassification, and the General Manager reported the matter is in review in light of White House policy.

15. Agenda for the Week of January 28 and the Joint AEC-MLC Conference
Agenda for January 29

Approved. (Secy)

16. Employment of Consultant

Mr. Ramey suggested, and the Commissioners agreed, consideration should be given to the employment of Robert Underhill as a consultant. (GM)

17. AEC 780/17 - Additional Awards for Especially Meritorious Contributions to the Development, Use or Control of Atomic Energy

The Commissioners agreed this matter should be deferred. The Chairman said he would discuss it with Dr. Jerome Wiesner at an opportune time. (Henderson)

18. Commissioners Palfrey and Pamey's Meeting Yesterday with Steering Committee

The Commissioners reported briefly on the development of Group I and Group II papers. Group III is not active at the moment and a summary paper highlighting the problems under discussion by Group IV has been circulated.

19. Draft Letter to Dr. Buechl of NUMEC

The Commissioners will review Dr. Wilson's draft for his transmittal today.

20. General Manager's Report on NTS Labor Committee Meeting Today

21. Los Angeles Power and Light Proposal Involving Westinghouse Reactor

The General Manager said he understood a Pittsburgh paper will issue a story on this proposal today. The proposal has not yet been received in the AEC.

22. U.S. Support of Genetics Congress, The Hague, September

The Commissioners had no objection to the General Manager's proposal for supporting funds in the amount of \$25,000. (Dunham)

23. Agreement with the Government of Norway re N.S.SAVANNAH

The General Manager reported that as agreed by the Department of State, an exchange of letters outside the Agreement will resolve the indemnity question. (Wells)

24. Solicitation for Proposals for Feasibility Study of Army Portable Nuclear Reactor

The General Manager reported staff will proceed with a solicitation of proposals for feasibility study and from those proposals select some for further study and evaluation from which a contractor will be selected to develop the prototype. (Pittman)

25. Briefing for ACRS re Health and Safety in Aerospace Program

The General Manager reported that in response to the Commission's request, a briefing has been arranged for the ACRS at their next meeting, January 31, February 1 and 2.

26. Agenda for Commission Meeting with Atomic Industrial Forum, 12:30 p.m., Army-Navy Club, February 21

The General Manager has circulated the agenda and noted the AIF will be happy to receive the Commissioners' comments on it.

27. NFS Contract Negotiations

Mr. Hollingsworth reported briefly on the negotiations with NFS and discussed Mr. Runion's letters of January 24. The Commissioners agreed it is not desirable to extend an invitation to meet with the utilities and others pending the Commissioners' meeting with NFS on Monday, January 28.

28. Chairman's Meeting with Carl Kaysen, 5 p.m. today

The Chairman said he would meet with Mr. Kaysen to discuss test planning and other matters.

PRESENT

Dr. Seaborg	Gen. Luedecke
Dr. Wilson	Mr. Henderson
Mr. Ramey	Mr. Hollingsworth
Mr. Palfrey	Mr. Ferguson
	Mr. McCool

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from 20 to 12 inspections and that this will give a sense of what the problem is like. He asked if I read Alsop's column of several days ago on the exchange of letters, and I said I had. Carl said he went back to the President and explained our problems and said he thinks the President should make a statement and the President agreed. Either this afternoon or tomorrow the White House will make a statement along the following lines: "During the course of negotiations and while we expect results, we are postponing the 'initiation' or 'continuation' of testing." In view of the statement to be made by the President, Carl doesn't think it is necessary for us to meet this afternoon. I asked Carl if he thinks we should go ahead with the JCAE briefing and he said he thinks we should because I will have the announcement behind me. As far as the meeting with the MLC is concerned, he doesn't think I will have any trouble. I suggested to Carl that I bring Commissioner Palfrey over some day and perhaps all three of us can have luncheon at the White House mess. He likes this idea and said that almost any day will suit him. I told him I will call.

At 3 p.m. I met with Joseph Alsop. The discussion revolved around the test ban negotiations and the importance of the number of on-site inspections. I told him that the situation is now such that the U.S. can certainly do with less than 12, but will need more than two or three, and that the nature of the inspections, that is, the area and the time of access, etc., are of equal importance as the number. He asked whether some scientists might have overemphasized the importance of underground tests and then de-emphasized them when they wanted to go on to atmospheric tests. He then suggested that some State Department officials might have done the opposite, i.e., first indicated that underground testing was not of much value before testing was resumed, and then, before atmospheric testing was resumed, underground tests were of such value that atmospheric tests were not required.

I confirmed that there is some truth in this assessment. But, I pointed out, that from the standpoint of the scientists, it must be remembered that, as compared with no testing, underground testing is a great step in the direction of obtaining useful information. Once that state has been reached, atmospheric testing is even a greater step. Thus, from this point of view, there is a certain rationale behind the scientists' thinking and their statements. We both agreed that, on balance, it appears that a test ban provides greater security for our country now than continued testing, provided, of course that it is a proper kind of test ban. As to numbers of on-site inspections, we agreed that five to eight per year might be right. He asked whether it is true that spectacular advances have been made in seismic detection. I said some advances have been made but I would not rate them as spectacular.

I described the depth of focus concept, the use of arrays, the placement of seismographs in the ground in areas of low background noise, etc. I suggested that he talk to some VELA people to get first-hand information on this. As another aside, we discussed France's nuclear capability, and I said that I think they have only crude atomic bombs of about 50 kt and it would be 1970 before they will have any hydrogen bombs sufficiently sophisticated for missile delivery to Russia.

With respect to China, I said it is my impression that no one has very good information. I mentioned Edgar Snow's recent book, The Other Side of the River--Red China Today, and he said it is full of misinformation and not worth reading. He said the same about Green's book on China, and Snow's earlier book, Red Star Over China. He compared them with the book by Webb on Russia in the middle 1930's, which did a lot of harm because it was misleading in its statements on how well things were going in Russia. On another subject, he said he thinks the U.S. is in a very bad spot as a result of De Gaulle's activities. He said that during the entire term of his Administration the President has consistently been

getting poor advice from the State Department on how to handle the European situation.

After Alsop left I called Kaysen and gave him the gist of my recent conversation.

I attended a dinner at the National Academy of Sciences given by the NAS Committee on Government Relations, for which George Kistiakowsky is Chairman for government officials.

Saturday, January 26, 1963 - D.C.

I worked at the office until 3 p.m.

Andrew Hatcher (White House Press Officer) called to say that the White House will issue the following statement at the regular press briefing at noon today. The statement will be made in the President's name as follows: "During the present discussions in Washington and New York on the nuclear test ban treaty among the Soviet Union, the United Kingdom and the United States, I have asked the Atomic Energy Commission to postpone underground shots in Nevada. We are maintaining the capability and readiness to resume our test program at any time. We have no intention of again accepting an indefinite moratorium on testing, and if it is clear we cannot achieve a workable agreement, we will act accordingly." I suggested that the last sentence might be changed to read, "If it is clear that we cannot achieve a workable agreement within a reasonable time, we will act accordingly." Hatcher said he will mention this suggestion to the President; however, he may purposely wish to leave that indefinite.

I wrote to Margaret McConnell (on the staff when I was Chancellor) in reply to her recent note telling me that she is having a cancer problem.

Sunday, January 27, 1963

I read journals, worked on AEC papers, the speech for a National Security Seminar in Dayton on April 1st and my article for the G.E. Forum magazine.

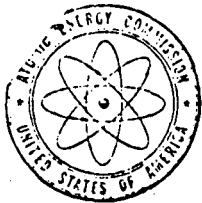
Monday, January 28, 1963 - D.C.

At 10 a.m. I presided over Information Meeting 238 (notes attached). We discussed briefly the FY 1964 Authorization Bill which we submitted to BOB for clearance.

At 11:30 a.m. the Commission met with W. McGuirk, R. D. Goodall, T. C. Runion of Nuclear Fuel Services and Roy B. Snapp (American Machine and Foundry) to discuss the status of the negotiations for the NFS contract. I told McGuirk that AEC needs assurance of availability of some \$3 to \$4 million more to assure that the project is feasible. He will bring this message to their Board of Directors. We also discussed our difficulty with NFA insistence that the utilities sign 15-year contracts.

The Commission (except Haworth) hosted a luncheon at the Lawyers Club for Professor Mario Bancora (Commissioner, Argentina AEC). John Rouleau and Ragnar Rollefson of the State Department, Algie Wells, Nathan Woodruff, Arnie Fritsch and others were present.

The Commission met to discuss the possible elimination of the Former Restricted Data category. Palfrey has prepared a letter to Bundy agreeing to the elimination and hence a smaller role for AEC and an easier path for DOD and the White House. The letter will be referred to the staff for comments.



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WASHINGTON 25, D.C.

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COPY NO. 15
January 28, 1963

INFORMATION MEETING 238

10:00 a.m., Monday, January 28, 1963 - Chairman's Conference Room, D.C.

1. Secretary of Navy Letter to Secretary of Defense re Nuclear Aircraft Carrier

The Chairman noted Secretary Korth's letter to Secretary McNamara supporting a nuclear carrier.

2. Revised Fiscal 1964 Authorization Bill

The Commissioners discussed briefly the proposed revised bill for transmittal to the Bureau contained in the General Manager's memorandum of January 23. They noted the language in Section 104a(2) re research and development utilizing the Enrico Fermi Atomic Power Plant and revised the language in ^{SUPPORT OF} Section 105 on the spectral shift power reactor. (Abbadessa)

3. Los Angeles Power and Water Reactor Proposal.

The General Manager discussed briefly the Saturday press story re Los Angeles Power and Water's proposal using a Westinghouse reactor, and said the proposal is expected to be received today. Nucleonics has queried the AEC staff re the suggestion that the Westinghouse reactor was chosen on the basis of ACRS statements on the proposed reactor. Mr. Pittman has suggested to Nucleonics that they review the public record prior to publication of any article on the subject. The Chairman suggested Commissioners Ramey and Palfrey consider the Commission's record on this matter.

4. Joint Committee Executive Hearing on the Weapons Program January 31

The General Manager reported the Hearing has now been scheduled and said the Commissioners would be given an outline of the testimony.

5. 202 Hearing February 19

The Chairman noted the Hearing is still scheduled for February 19 and said Dr. Haworth is working on an outline of testimony. He noted Senator Pastore's reference to White House response to the Commission's Civilian Nuclear Power report and said he had alerted the White House staff on this.

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6. Commissioner's February 21 Luncheon Meeting with Atomic Industrial Forum

Noted.

7. Commissioner's Luncheon Meeting with Chamber of Commerce Atomic Energy Committee

The General Manager said he had suggested alternative dates to the Committee.

8. Cost Report for First and Second Quarters of Fiscal 1963

The Chairman noted receipt of the report and suggested the Commissioners might wish to review it.

9. NTS Community

In response to the Chairman's comments, the General Manager said a report will be submitted later in the week. (Bloch)

10. Letter to Federal Council for Science and Technology re Agency Release of Information on Grants

The Chairman requested the Commissioner's review prior to his transmittal. (Henderson)

11. Fund for Maritime Program

The General Manager said this matter is still under review in the Bureau of the Budget.

12. General Manager's Report on Labor Situation at NTS

13. Commissioners' Meeting with Nuclear Fuel Services' Representatives Today

The Commissioners discussed briefly AEC 881/51 in view of their 11:30 meeting with NFS.

PRESENT

Dr. Seaborg	Gen. Luedecke
Dr. Haworth	Mr. Henderson
Dr. Wilson	Mr. Hennessey
Mr. Ramey	Mr. McCool
Mr. Palfrey	

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Tuesday, January 29, 1963 - D.C.

The Commission met with representatives of the Empire State Atomic Development Association (ESADA) - Acker (Chairman, Central Hudson Gas & Electric), Milliken (President, New York State Electric & Gas), Doebles (Chairman, Long Island Lighting), Dunning, Eble (President, Consolidated Edison), Ginna (Chairman, Rochester Gas & Electric), Hulswit (President, Orange & Rockland Utilities), Mac Rae (of LeBeauf, Lamb & Leitry), Slater (Vice President, Niagara Mohawk Power), and Stoller (Technical Director, ESADA). They are interested in building, starting in 1964, a 300-500 MW reactor, which will be either superheat, sodium cooled graphite or gas-cooled, i.e., General Electric, Atomics International or General Atomic.

I had lunch with Vic Schmidt, Chris Henderson and Arnie Fritsch at the Roger Smith Hotel.

The Commission met with the MLC to discuss dates for the start of atmospheric testing and readiness and the FY 1965 planning figures for weapons.

All the family except me went to the National Art Gallery to see the Mona Lisa; then we all had dinner at the Hot Shoppes (14th and G Streets).

Wednesday, January 30, 1963 - Germantown

At 10 a.m. I presided over Information Meeting 239 (notes attached). We discussed the Finney article which appeared in the West Coast Edition of the New York Times on Tuesday which said the AEC is pushing DOD to build nuclear ships. Obviously this is based on my January 7th letter to McNamara. We also discussed the January 26th letter from Congressman Holifield (copy attached) which said that we should keep some work at Coors Porcelain Company on the PLUTO fuel elements despite a lack of provision in the budget.

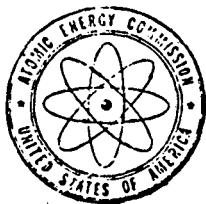
John Conway called to ask if I can tell him where we stand as far as the President's accepting the civilian power report. I told him the best reaction we have so far is the President's statement in his budget message, and it is our understanding that this is the first step. John is preparing for the 202 hearings next week and hopes to have an interesting hearing. He thinks the power report will make a good basis for one. They want to know: 1. if there is any indication that the President is going to accept the report and set it up as a platform, and 2. if there is any kind of study or evaluation to be made of it.

I called Bill Webster to ask him if we can interest him in serving as a member of our GAC. He says he is flattered but will have to let me know within a day or two.

Frank Long called to say he has a paragraph for clearance he would like to read to me. It is in connection with a report which Republican Congressmen are making on the question of atom bomb testing. Lewis Strauss will head the report and there will be a letter from Edward Teller. One of the Republican Congressmen thinks it will be useful to have a statement from Bill Foster.

Frank says what they have written follows pretty closely the material in hearings before the Senate Preparedness Subcommittee last spring and paraphrases Paul Nitze's statement. The sense of the statement is as follows: "However, for the weapons development and knowledge of weapons effects which are of primary concern to us, and which might make a substantial change in the military balance which will be unfavorable to us, clandestine underground testing will be unsatisfactory. Moreover, pure fusion weapons would not be of great advantage to us because they would constitute a substitute for what we already have. Hence, any delay in the development of these weapons would appear to be to our advantage."

089



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

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COPY NO. 13

January 30, 1963

INFORMATION MEETING ²³⁹₂₃₈

9:55 a.m.; Wednesday, January 30, 1963 - Chairman's Conference Room, A-457

1. Nuclear Fuel Services Negotiations

Mr. Hollingsworth reported no response yet from Mr. McGuirk re additional financial assurance. Negotiations by the parties are continuing. i

2. Draft Letter to Secretary Gilpatric re Test Readiness Date

The Chairman requested redrafting in light of the Commission's discussion yesterday at the Joint AEC-MLC Conference. (Betts)

3. Joint Committee Executive Session Hearings on the Weapons Program, 10:00 a.m. and 2:00 p.m., Thursday, January 31; and Joint Committee Briefing by DASA, 10:00 a.m., Friday, February 1

4. Today's Wall Street Journal Article re Minnesota Power and Light Proposal

5. John Finney's January 28 Article re Naval Nuclear Vessels

Noted.

6. January 26 Letter from Congressman Holifield re Pluto Program

The Chairman requested staff review and preparation of an early response. (Pittman/Abbadessa)

7. Fiscal Year 1963 Budget Review

Mr. Hollingsworth noted the Budget Review Committee is in session today and tomorrow in review of 1963 programs. The Chairman requested a report by the General Manager subsequent to the Budget Review Committee's meetings. (Abbadessa)

8. Commissioners February 21 Luncheon Meeting with Atomic Industrial Forum

9. Public Comments on AEC Civilian Nuclear Power Report

The Chairman requested inclusion of comments by public power groups and others as suggested by the Commissioners and transmittal of copies to the Joint Committee and Messrs. Gordon and Weisner. (Fritsch/Ink)

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1-30-63

10. Lawrence Award Ceremony April 25 - National Academy of Science

The Commissioners approved the proposed arrangements. (Secy)

11. Labor Situation at NTS

12. Oak Ridge Laboratory Proposal for Reactor for Desalinization Program

Dr. Wilson said the Atomic Industrial Forum had called him regarding the status of the report, and the Commissioners agreed that it would be appropriate to respond that the report is an AEC laboratory report which is under review by several government agencies.

13. Proposals by Connecticut Yankee and Los Angeles Water and Power

Mr. Hollingsworth said he would circulate copies of the proposal.

14. Organization for SNAP Program Responsibility

15. Restricted Data Category Study

Mr. Palfrey noted the Commissioners had discussed the draft study which has now been sent to staff for review and comment. (Ink-GC-Betts)

16. Negotiations with U.K. re Nassau Agreement

Mr. Ramey reported that the Monday plenary session will be attended by him and Commissioner Palfrey, and that at the working sessions Messrs. Wells and Parks and Col. Crowson will represent the Commission. Copies of the draft agreement have been circulated for information.

17. Mr. Ramey's Note from Former Congressman Carl Durham

PRESENT

Dr. Seaborg
Dr. Wilson
Mr. Ramey
Mr. Palfrey

Mr. Hennessey
Mr. Hollingsworth
Dr. Fritsch
Mr. McCool

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Congress of the United States

JOINT COMMITTEE ON ATOMIC ENERGY

January 26, 1963

UNCL. BY DOE
NOV 88

Honorable Glenn T. Seaborg
Chairman
U. S. Atomic Energy Commission
Washington 25, D. C.

Dear Dr. Seaborg:

It has recently been brought to my attention that because of the current funding situation in the Pluto project, the Coors Porcelain Company, a major contractor in the program, will very shortly be forced to begin terminating its operations.

I understand that Coors has performed its work in fabricating the core for the Tory II C test in an outstanding fashion and that, in this process, it has developed a fine plant facility at Golden, Colorado with an extremely talented staff.

I fully appreciate the fact that the current requirements and funding situation does not present a promising outlook for further work in the Pluto program. Nevertheless, the Coors facility and the talent assembled at this facility represent an extremely valuable national resource which could be reactivated only with great difficulty, and perhaps not at all.

I would like to suggest, therefore, that the Commission give consideration to the possibility of sustaining a minimum research and development effort at the Coors facility. For example, it has occurred to me that, with its proven competence in the ceramics field, Coors could play a significant role in research and development on advanced materials under the Commission's general nuclear technology program.

Another factor which I hope will be considered before initiating any reduction in Pluto fuel production efforts is the availability of sufficient amounts of fuel material for the scheduled Tory II C Pluto test. I would hope that sufficient backup material is available to complete the test in the event of failure of the first core.

I am sure you will agree it is in the long range national interest to prevent the waste of a valuable scientific asset such as that represented by the Coors facility and its staff.

In view of the fact that the time is short and the situation critical, I would appreciate an expression of your views on this matter at the earliest possible date.

Sincerely yours,



Chet Holifield
Vice Chairman

I told Frank I have two reactions: this might be right where clandestine underground testing's being unsatisfactory is mentioned, if you accept the lack of value of a pure fusion bomb. There is quite a feeling, or suggestion, among many that clean tactical weapons are very important and would be needed in order to occupy the territory with your own troops, and you could make quite an advance in those by underground testing. Frank said the statement rather carefully does not focus on that. I said it does in a sense--it says, "all fusion." He said he thinks it fairly carefully paraphrased not only Nitze's statement but also the President's statement last summer when he said something like, "What you are in effect saying is these weapons would be relatively more important to the Russians than to us." I said this isn't so much true for clean, all-fusion tactical weapons, which is, in a way, what has been loosely referred to as the neutron bomb. I said there will be those who think those are important and this includes Johnny Foster. I said we have a strong letter from Foster now in which he makes this point. Another thing they can do underground, and to some extent clandestinely and which doesn't require a long series of tests, is to test some of the vulnerability of some of their weapons, which can be done by testing the primary. There are certain improvements in the vulnerability of the weapons which can be made by testing the primary which, of course, will mean it is only a small test.

There are also a few tests they can make underground in the "general effects" territory. I said I think it will all come back to the wording that "these aren't of such great importance that they change the balance of power." Frank summed this up by asking if he could say that I do not sharply object but that I don't want to simply say I have no worries at all with it. I told him this was all right. I then pointed out two or three areas where progress might be made. He said he will take this up with Fisher.

I was briefed by Betts and others for the Joint Committee hearing on weapons testing which will be held tomorrow.

Thursday, January 31, 1963 - D.C.

I testified at the JCAE hearing on the weapons situation, comparing U.S. and USSR positions. Betts and Bradbury testified on the stages of weapons development. Foster and Henderson will testify tomorrow. Several JC members, especially Jackson and Hickenlooper, attacked the value of the Test Ban, claiming it will hurt the United States. Perhaps Haworth and I didn't defend the Test Ban as vigorously as we should have on the theory that it might be better not to arouse further animosity.

I had lunch at the Army-Navy Club with Bob LeBaron, Harvey White and Lee McLean to discuss the progress of the Lawrence Hall of Science fund campaign which is going well. \$750,000 has been raised to date.

At 2 p.m. I attended a meeting of the Federal Council for Science and Technology, where the report of the Natural Resources Panels (NAS & FCST) was discussed.

I met with Victor Weisskopf, William Havens, George Kolstad, Paul McDaniel, Lee Haworth and Arnie Fritsch to discuss means for obtaining more support for low energy physics.

I saw No. 4 of my program on "The Elements" on WETA, Channel 26 this evening.

Tonight is the second anniversary of my arrival in Washington to assume my duties with the Atomic Energy Commission.

Friday, February 1, 1963 - D.C.

Carl Kaysen called to make sure I know that the test ban talks have been called off in New York and will not resume until the talks in Geneva start. Regarding testing, the President thinks we should get back on the testing schedule next week. Although the President plans to make no announcement, Kaysen said that at the JCAE hearing today I can make a statement regarding the resumption of testing. Kaysen said the announcement should just be the usual one when we have our first test.

He asked whether we could test on Tuesday or Wednesday February 5th or 6th). I said we could, easily, provided there is no holdup by labor. He asked that we let Chuck Johnson or him know the date we will resume testing.

I then brought up the matter of the current JCAE briefing on the weapons program, and said that the Committee is asking questions about the test ban treaty and related disarmament matters, and I wondered whether we might not suggest that Bill Foster appear before the Committee. Kaysen agreed this might be useful. Kaysen asked if there were any reactions from the JCAE after this morning's briefing. I said, if there were I would let him know.

At 9:45 a.m. I presided over Information Meeting 240 (notes attached).

I appeared briefly at the JCAE hearing to make the announcement on testing and to hear John Foster's testimony. It went better today than yesterday.

I called Bill Foster at the U.S. Mission to the U.N. in New York. I told him that we are in the process of our annual hearing before the JCAE on the weapons development program and that the question, why are we going for a test ban, keeps being asked again and again. I said, if it looks like the right thing to do, we could suggest that the Committee call on him for an explanation. Foster said such a suggestion would be quite in order since he will have to appear anyway. He asked, however, that I be vague on the timing. He said he will not want to appear either with or before Arthur Dean. Foster asked if I had been in touch with the President, and I said I had received word from the White House this morning to resume testing.

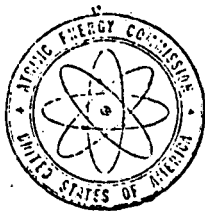
Commissioner Wilson and I had lunch with Elmer Staats and Kenneth Hansen of the BOB at the White House Mess. We discussed the status of BOB clearance on the private ownership legislation and a statement by the President on the implementation of the Civilian Nuclear Power Report (needed before the 202 hearings scheduled for February 20th).

The Commission was briefed on the SNAP program by Chauncey Starr of Atomics International.

Helen and I had dinner with Commissioner and Mrs. Wilson at the Westchester Apartments restaurant.

Saturday, February 2, 1963 - D.C.

I worked in the H Street office until 12:30 p.m. I then had lunch at the Hot Shoppes (14th and G, N.W.) with Pete and Lynne.



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

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NOV 86

15

COPY NO. _____

INFORMATION MEETING 240

February 1, 1963

9:45 a.m., Friday, February 1, 1963 - Chairman's Conference Room, D. C.

1. AEC 996/17 - Transmittal of Atomic Information to West Germany and Italy

Secretary Gilpatric's January 30, 1963 letter to the Chairman requests that the Commission join in a determination authorizing the transmittal to West Germany and Italy of the numbers, by type and location, of atomic weapons dispersed in support of its NATO committed forces. The Secretary's letter requests early action in anticipation of his scheduled departure for Europe on February 2 and the probability that he will find it necessary to communicate this information to appropriate representatives of Italy and Germany under the bilateral agreements.

The Commissioners discussed the proposed transmittal of information briefly and Mr. Palfrey pointed out that the language in paragraph (2) of AEC 996/17 specifying that the determination is to apply also "to those weapons which have been dispersed at any future date when a requirement to provide such information arises" implies that when future dispersals have been approved and weapons have been dispersed, transmittal of information as to numbers, type and location will be made without further reference to the Commission. The General Manager agreed that under this determination, the Department of Defense would be authorized to transmit such information subsequent to a dispersal approval.

The Commission:

Approved the conclusions as set forth in paragraph 6;

Determined that the proposed cooperation and the proposed communication to West Germany and Italy of the information described in the Deputy Secretary of Defense's letter of January 30, 1963, will promote and will not constitute an unreasonable risk to the common defense and security;

Noted that the Secretary of Defense will be informed of the Commission's action by letter such as Appendix "B", as revised;

Noted that the Secretary of Defense will notify the President of this determination and, in the absence of qualifying Executive action, will notify the Joint Committee on Atomic Energy; and

Noted that no public announcement will be made.

096

Dr. Seaborg said Commissioner Haworth had informed him that he joined in the approval, and Commissioner Palfrey said he would discuss with Commissioner Ramey appropriate revisions to the letter to the Secretary of Defense. (The revised letter was subsequently dispatched by courier to the Capitol for Mr. Ramey's review during his attendance at the JCAE Executive Hearings on the Weapons Program. Later in the morning it was signed by the Chairman for courier delivery to the Secretary of Defense.)
(Betts)

2. Agenda for the Week of February 4, 1963

Approved. (Secy)

PRESENT

Dr. Seaborg Gen. Luedecke
Dr. Wilson Mr. Henderson
Mr. Palfrey Mr. Ferguson
 Mr. McCool

DISTRIBUTION

Commissioners
General Counsel
General Manager
Secretary

W. B. McCool
Secretary

I took Lynne with me to Joseph Wilner Company (14th and H, N.W.) to pick out fabric for three suits I will order from them.

Sunday, February 3, 1963

I read AEC papers and worked on some of my forthcoming speeches.

Monday, February 4, 1963 - D.C.

At 10 a.m. I presided over Information Meeting 241 (notes attached). We discussed our reply to Holifield's letter (copy attached) concerning the status of the Coors Porcelain Company and a letter (copy attached) from Alexis Johnson saying that Rusk and the State Department agree with my letter (copy attached) to Rusk of December 21, 1962, which suggests that the State Department try to get our bilateral partners to agree to IAEA safeguards. The Commission decided I should reprimand Teller for his press statement issued through the House Republican Conference Committee headed by Hosmer and the fact that he had come out for a partisan group.

The labor situation at Nevada Test Site is temporarily under control which apparently means underground testing can start this week, perhaps on Thursday.

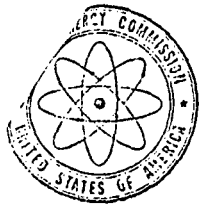
I had lunch in the office with Fred Schuldt (BOB), John Abbadessa and Chris Henderson. I explained various matters to Schuldt, such as the value of Cm-244 for SNAP, the possible value of Cm-245 and Cf-249 as nuclear explosives, the promise of COACH, the need for a Presidential statement on the Civilian Nuclear Power Report, etc.

I called Bundy and asked it it is time for Rickover to be brought into the Nassau Agreement negotiations, and he said they are just about at that stage. McNamara has brought him in in a preliminary way and he thinks the President will probably see Rickover in about two days or at least some time this week. I said his advice on safety in training could be played up. On the other hand, we need to quiet him down on security.

Bundy said he has talked with Bill Foster about Johnny Foster's testimony and the need to begin to get framework on coverage and understanding among ourselves. Bundy mentioned that Johnny has made some glamorous testimony on how things can be done. Bill Foster pointed out to Bundy that if we are to have any position in Geneva, we should be in a position of having reviewed such statements and have an understanding of them. I told him that the Joint Committee has strongly made the point that the ACDA should have been briefed, particularly, Frank Long should have been briefed. We have told the JCAE that the ACDA is pretty well up to date on these things, but they can be briefed further. I told Bundy I think there should be some kind of a followup on this. I said I made a point at the hearings that the JCAE should hear Bill Foster and something can be arranged after Bill Foster has gone over the transcript of the hearings since no time limit was set. I mentioned the statement that Edward Teller made before the House Republican Conference Committee. Bundy read the statement and feels we should take no action on it.

I received a reply (copy attached) to my January 7th letter to McNamara concerning nuclear ships and indicating my letter had some effect.

I wrote to the American Chemical Society nominating Burris Cunningham for the 1964 Fisher Award in Analytical Chemistry.



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

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COPY NO. 15

February 4, 1963

INFORMATION MEETING 241

10:00 a.m., Monday, February 4, 1963 - Chairman's Conference Room, D.C.

1. Joint Committee 202 Hearings February 20 and 21

The Chairman noted the change in schedule and Mr. Ink said draft testimony will be circulated to the Commissioners today. Dr. Wilson discussed briefly his comments on : reactor program support, breeder reactors and radioactive waste disposal.

2. Letters to White House and Secretary Gilpatric re Test Program

In response to the Chairman's query Mr. Ink said the letters are in staff review. (Betts)

3. Low Energy Nuclear Physics Program

The Chairman said he and Dr. Haworth had discussed with Dr. Weisskopf and Dr. Havens last week the effect of budget action on the program, particularly the loss of machines. A letter to Mr. Gordon, BOB, for the Chairman's signature is in preparation. (McDaniel)

4. General Manager's January 30 Memorandum re Contract Negotiations with Harvard

The Commissioners discussed the proposed modifications briefly and Dr. Haworth requested revision of the definition "employ." Subject to that revision and any other comments from the Commissioners, the Chairman suggested the General Manager proceed. (Vinciguerra)

5. Response to Mr. Hollifield's Query re PLUTO Program (Coors Contract)

Mr. Ink discussed briefly the possible re-programing of funds to accommodate some additional work under the Coors contract in fiscal year 1963.. The Chairman noted the problem of additional funds required for the TozyIIC program in fiscal year 1964.

6. ACRS January 30 Draft Letter re Engineered Reactor Safeguards

The Commissioners thought it not desirable for the letter to be sent at this time. (Secy)

7. White House Response to Civilian Nuclear Power Report

Dr. Haworth said he is reviewing a draft letter.

Dr. Haworth left the meeting.

8. Chairman's Visit to Hanford March 15, 1963 With Senator Jackson

The Chairman said he had accepted an invitation to visit Hanford with Senator Jackson and will plan to depart the evening of March 14. Staff is to be informed today that Mr. Ramey and other Commissioners may be in the party. The Chairman noted Senator Jackson's suggestion re an additional study on AEC cooperation in industrial development efforts and requested a staff review of this matter in preparation for his meeting with Mr. Glenn Lee of the Tri-City Herald. (Bloch/Baranowski)

9. Planning at NTS

The Chairman requested information in preparation for his call to Mr. Carl Kaysen. (Ink)

10. Letter to Mr. Bundy re Special NTS Events

The Chairman requested that the draft letter be revised. (Betts)

11. BOB Review of Private Ownership Legislations

Dr. Wilson reported briefly on the Friday meeting with Mr. Staats at which time Mr. Staats assured the Chairman and Dr. Wilson of early Bureau action on the proposed Legislation.

12. Special Committee on Large Atomic Reactor for Desalinization Program

In response to the Chairman's request, Dr. Wilson reported that the staff is reviewing the proposal in preparation for a meeting of the Committee in early March. A letter to the Joint Committee is to be submitted for Dr. Wilson's review today. Mr. Ramey commented on the danger of too much conservatism on the technical analysis of large plant feasibility for the project, and the Chairman suggested that Mr. Ramey assist Dr. Wilson in review of the study.

13. Nuclear Fuel Services Negotiations

Mr. Ink reported the negotiations are proceeding well and the Commissioners agreed to discuss the matter on Wednesday, February 6. (McCool)

14. Los Angeles Water and Power and Connecticut Yankee Reactor Proposals

The Chairman requested an early report on the staff analysis of the two proposals. In response to Dr. Wilson's comments, he also requested early discussions with Los Angeles Power and Water officials re their interest in the spectral shift reactor. (Pittman)

15. Diffusion Plant Study

Mr. Ramey suggested the study include recommendations on alternative uses of the plant and the possibility of discussions with the U. K. regarding their requirements. Mr. Ink said the staff will review the study with Mr. Ramey. (Baranowski)

16. Application of the IAE Safeguards to the EBWR

Mr. Ink said the staff, in response to the request for an extension of application to two years, recommends with State Department concurrence that the extension not be granted. The Commissioners had no objection to the proposal to hold to the one year period. (Wells)

17. Georgia Nuclear Laboratory

Mr. Ink discussed briefly the possibility of sale or lease by GSA to Lockheed Aircraft Corp. The Commissioners had no objection to dispatch of a letter to GSA requesting exploration of this possibility. (Pittman)

18. Architect Engineering Contract at NTS

Mr. Ink reported that after evaluation of 10 proposals, the General Manager recommends award of the contract to Petroleum Consultants. The Commissioners had no objection subject to the review of the evaluation. (Vinciguerra)

19. Availability of Information re PAL to Civilian Committee for NATO Standing Group

Mr. Ink discussed briefly Dr. Gerald Johnson's telephone call on Saturday re the information required by the Committee in its Rand type analysis. The staff will review today the possibility of transmittal of information through SACEUR. If this is not feasible, the staff will report further to the Commissioners. (Ink)

20. Presidential Indemnity Provision in the General Electric Contract

The General Counsel reported that General Electric feels very strongly that the Presidential Indemnity provision as related to an accident at Hanford involving damage in Canada exceeding the \$500,000,000 Price-Anderson indemnity, should be continued in the contract extension. The Commissioners thought it would probably be necessary to include this indemnity in the two-year extension subject to the understanding that this will be a matter for consideration in competition for the contract beyond that period. (Vinciguerra)

PRESENT

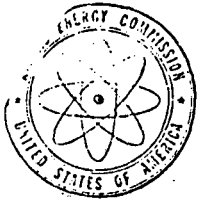
Dr. Seaborg	Mr. Ink
Dr. Haworth*	Mr. Henderson
Dr. Wilson	Mr. Hennessey
Mr. Ramey	Mr. McCool
Mr. Palfrey	

*Partial Attendance

DISTRIBUTION

Commissioners
General Manager
General Counsel
Secretary

W. B. McCool
Secretary



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

FEB 4 1963

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Dear Mr. Holifield:

This is in reply to your letter of January 26, 1963 concerning the status of the Coors Porcelain Company. As you know, Coors is now completing the production of fuel elements for the PLUTO Tory IIC reactor. In accordance with the most recent guidance from the Department of Defense, the Atomic Energy Commission currently has no PLUTO reactors scheduled beyond the Tory IIC; therefore, no large scale production is anticipated for this facility in the near future.

We do, however, recognize that Coors has developed a unique capability for production of PLUTO type fuel elements, and that we must retain an essential portion of this capability pending resolution of future fuel element requirements. We have therefore taken action to provide funding to keep a nucleus of key people at Coors at least through Fiscal Year 1963. Since Coors' principal contribution to PLUTO fuel element technology has been in the adaptation of Livermore developed fabrication processes to large scale production, we believe that their efforts should continue to be utilized for PLUTO fuel element process improvement, rather than in the AEC's general nuclear technology program. Further utilization of this facility will of course depend on the future course of the PLUTO Program.

We agree that it is prudent to retain the Coors capability at this time and we will continue to do so within the limitations of need and financial resources. We appreciate your continuing interest in the PLUTO Program.

Sincerely yours,

(Signed) Glenn T. Seaborg

Chairman

Honorable Chet Holifield
Vice Chairman, Joint Committee on
Atomic Energy
Congress of the United States

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Congress of the United States

JOINT COMMITTEE ON ATOMIC ENERGY

January 26, 1963

Honorable Glenn T. Seaborg
Chairman
U. S. Atomic Energy Commission
Washington 25, D. C.

UNCL. BY DOE
NOV 86

Dear Dr. Seaborg:

It has recently been brought to my attention that because of the current funding situation in the Pluto project, the Coors Porcelain Company, a major contractor in the program, will very shortly be forced to begin terminating its operations.

I understand that Coors has performed its work in fabricating the core for the Tory II C test in an outstanding fashion and that, in this process, it has developed a fine plant facility at Golden, Colorado with an extremely talented staff.

I fully appreciate the fact that the current requirements and funding situation does not present a promising outlook for further work in the Pluto program. Nevertheless, the Coors facility and the talent assembled at this facility represent an extremely valuable national resource which could be reactivated only with great difficulty, and perhaps not at all.

I would like to suggest, therefore, that the Commission give consideration to the possibility of sustaining a minimum research and development effort at the Coors facility. For example, it has occurred to me that, with its proven competence in the ceramics field, Coors could play a significant role in research and development on advanced materials under the Commission's general nuclear technology program.

Another factor which I hope will be considered before initiating any reduction in Pluto fuel production efforts is the availability of sufficient amounts of fuel material for the scheduled Tory II C Pluto test. I would hope that sufficient backup material is available to complete the test in the event of failure of the first core.

I am sure you will agree it is in the long range national interest to prevent the waste of a valuable scientific asset such as that represented by the Coors facility and its staff.

In view of the fact that the time is short and the situation critical, I would appreciate an expression of your views on this matter at the earliest possible date.

Sincerely yours,



Chet Holifield
Vice Chairman

DEPARTMENT OF STATE
WASHINGTON

February 1, 1963

Dear Dr. Seaborg:

The Secretary has asked me to reply to your letter of December 21, 1962 concerning the role of the International Atomic Energy Agency in the administration of safeguards against diversion of nuclear material to military uses. We appreciated having your views, which I believe you will find are reflected in the enclosed policy statement which was finally approved on January 18. We certainly agree that the sincerity of our desire to make maximum use of the IAEA controls system can only be established by prompt and persuasive consultation with our present bilateral partners.

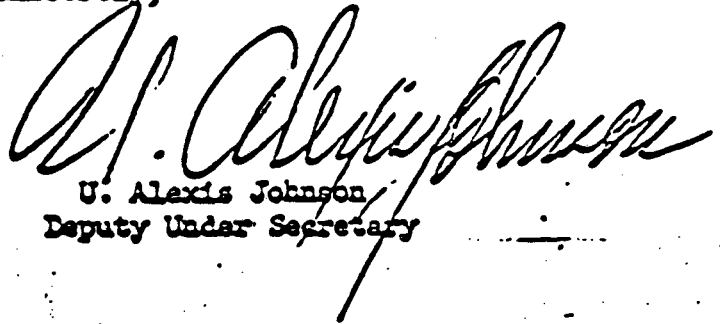
With reference to your specific comments on the Tarapur station in India, we plan immediately to urge the Government of India at the highest level to accept in principle the application of IAEA safeguards. In the event this effort should fail, the Department of State will, of course, insist that any bilateral agreement concluded will provide for future consultation on the question of IAEA safeguards and will permit either party to terminate the bilateral agreement should a satisfactory resolution of this question not be achieved.

With regard to your suggestion that the fall-back position require India to "agree to give sympathetic consideration to having IAEA safeguards apply to the Tarapur plant", the Department agrees with the principle expressed here that India must agree to give a genuine consideration to IAEA safeguards and not merely a token recognition in order to get an agreement signed. I assume from your letter that the specific words "sympathetic consideration" do not have to be included in the agreement provided the general principle implied by those words is adhered to.

The Honorable
Glenn T. Seaborg,
Chairman,
Atomic Energy Commission.

As I believe you are aware, it is the Department's intention to undertake renegotiation of many of our bilateral agreements during the next six or eight months in an effort to persuade our bilateral partners to transfer the safeguards provided for in these agreements to the IAEA. I am grateful to you for your views, which have been of considerable help to us in coming to the positions which have been outlined above.

Sincerely,



U. Alexis Johnson
Deputy Under Secretary

Enclosure:

Copy of policy statement.

ORNL 61-1006
2/14/68

U.S. Policy on Safeguards to Prevent
the Diversion of Nuclear Materials and
Equipment from Peaceful to Military Uses

1. SAFEGUARDS

It shall continue to be the policy of the United States to take all possible steps to insure that no nuclear materials or installations intended for peaceful use should be diverted to military purposes.

It shall continue to be the policy of the United States to supply materials or equipment for peaceful uses of atomic energy only if appropriate arrangements are made to safeguard such material or equipment against diversion to military purposes.

Recognizing the many advantages of a safeguards system administered by an international organization and recognizing that the IAEA established such a system in 1961 and has by now demonstrated the effectiveness of this system, the United States will make a determined effort to transfer this present safeguard arrangements to the Agency as soon as possible and to get all new bilateral partners to accept Agency safeguards.

To implement this policy the United States will:

a) Confer with its present bilateral partners within the next six or eight months with the intent of arranging for the transfer of safeguards to Agency:

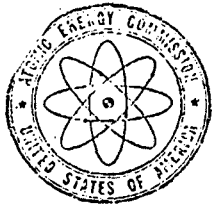
b) Urge the IAEA to amend its safeguards system by removing the present power limit of 100 MW thermal:

c) Include in new bilateral agreements either an arrangement for IAEA safeguards or a provision similar to those in most of our existing agreements which will permit the United States at a later date and after mutual consultations either to arrange for a transfer of safeguards to the IAEA or to terminate the agreement.

2. SUPPLY OF MATERIAL AND EQUIPMENT

The IAEA can and does play a useful role as an intermediary in the supply of nuclear materials and equipment. Nevertheless it is the view of the United States that the arguments in favor of using the IAEA in the supply function are less compelling than those in favor of using the IAEA for the safeguards function.

Therefore it shall continue to be the policy of the United States to arrange for the supply of nuclear materials or equipment either on a straight bilateral basis or with the participation of the IAEA, the choice to be determined by the preference of the recipient country and other pertinent circumstances.



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

DEC 21 1952

IN REPLY REFER TO:

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Dear Mr. Secretary:

We have been working closely with representatives of the Department of State on the question of the role of the International Atomic Energy Agency in the administration of safeguards against diversion of nuclear material to military uses. We have been informed that recommendations on this question are now being prepared for your consideration, and we should, therefore, like to advise you of our views.

We believe there is agreement both within the U.S. Government and with many of our close friends abroad that the application of safeguards by the IAEA is desirable. Events have demonstrated, however, that this will not come about unless the United States takes positive steps to secure this result. For several years the United States has pressed for the adoption of effective safeguards within the IAEA and has frequently reiterated its intention to suspend its bilateral safeguards in favor of those administered by the Agency when the Agency is in a position to assume this responsibility. The Agency has now established, and is successfully applying, an initial safeguard system which is applicable to reactors of up to 100 thermal megawatts capacity.

We understand that interested officers in the Department of State have concluded that our overall interests, including our interest in bringing about a widespread transfer of safeguards administration to the IAEA, will best be served at this time by following a policy of persistence rather than insistence in bilateral negotiations with our partners.

The Commission agrees with this policy, provided the persuasive efforts are made with the utmost vigor. Only in this way will we be able to demonstrate that the United States is resolute in seeking the application of IAEA controls. We further believe that a decision on whether to supply nuclear materials and equipment to a country which firmly refused to accept IAEA safeguards should be left for determination if and when such a case arises. This would afford the opportunity to adopt the most appropriate action in view of the circumstances that exist at the time, and we should not presume that under some circumstances our continuing assistance would be made conditional on the acceptance of IAEA safeguards.

Mr. Secretary

- 2 -

In regard to the Tarapur station, we understand the Department is prepared to urge the Government of India, at the highest level, to accept in principle the application of IAEA safeguards. It would be recognized that further negotiations would take place when an IAEA system covering reactors of such sizes becomes available. If India does not accept in principle IAEA safeguards, our agreement providing for effective bilateral controls would contain the usual provision of our agreements which contemplates that the parties will consult in the future regarding the possible application of IAEA safeguards to the agreement.

The Commission concurs in such an approach, with the understanding that if India does not agree to IAEA safeguards in principle, the fall-back position noted above would include the requirement that India would have to agree to give sympathetic consideration to having IAEA safeguards apply to the Tarapur plant. The United States, in turn, should be willing to describe to India the circumstances under which we might exercise our right to terminate the agreement if India does not accept IAEA safeguards when they are developed.

We believe that any position less stringent than that just described would have an unfortunate effect on the success of our overall policy on IAEA safeguards.

Following resolution of the safeguards question with India, we believe it would be desirable to issue a public announcement, which would reaffirm our objective of transferring bilateral safeguards to the Agency.

We hope that the foregoing views will be of help to you and we would welcome the opportunity to discuss them if you should wish. As I am sure you appreciate, negotiations will have to be initiated with the Government of India in the very near future if a satisfactory agreement for cooperation is to be negotiated and concluded during the next Congressional session.

Sincerely,

Signed: Elmer I. Secrest

Chairman

The Honorable Dean Rusk
Secretary of State

cc: Chairman (2)
Commissioner Haworth
Commissioner Palfrey
Commissioner Ramey
Commissioner Wilson
Secretariat (2)

GM

AGMIA
Yeomans, IAEA

THE SECRETARY OF DEFENSE
WASHINGTON

2 FEB 1963

538 2/4/63

Dear Glenn:

This is to advise you that we are reconsidering our decision to build CVA-67 as a conventionally fueled ship. There have been, as you say, several important developments during the past year that warrant this review, and I do appreciate the views and information presented in your letter of January 7, 1963.

I will certainly inform you of the results of our review at the earliest possible time. It is being pursued as a matter of urgency.

Sincerely yours,



Honorable Glenn T. Seaborg
Chairman
Atomic Energy Commission

Tuesday, February 5, 1963 - D.C.

The Commission was briefed by W. Doll (General Manager), R. I. Strough (Chief Development Manager), A. A. Brown (Manager, Test Laboratories), Robert M. Myer (Chief Engineer) and E. R. Dytko (Reactor Division Manager) of Pratt & Whitney on SNAP 50. It will cost more than \$500 million, with a flight test by 1970 or later.

We received word that the White House authorized four underground shots (two for each laboratory) for Friday.

I met with Lorne Gray (President, Atomic Energy of Canada, Ltd.), who was accompanied by Algie Wells. We discussed the matter of our staff having criticized the Canadian isotope sales program--that our staff thinks there is Canadian Government subsidy involved. I showed him a copy of the Atomic Energy Clearing House Memorandum of October 29, 1962, referred to in his letter, and said that I can't find anything in it stating John Maddox is critical in the way Gray said he was in his letter. Gray looked at it and couldn't find anything like that either. (Copies of this correspondence attached.)

I told him that the staff felt it was largely a matter of its passing on U.S. industry criticism. We agreed that someone from our staff might look into their operation on some trip to Ottawa, including satisfying themselves that there is no government subsidy. We also agreed that there is no need for me to answer Mr. Gray's letter further. I said the staff understands this position, but we can't guarantee there will be no further criticism through industrial channels. He also mentioned a difficulty with the NRU Agreement which has to do with shipment of irradiated fuel elements after nine months cooling (now required by our new shipping regulation, as opposed to the original six months cooling in the agreement). I indicated that this is one of those misunderstandings which can arise in a large organization like ours and there may be nothing we can do about it. However, Algie Wells is looking into it.

I had lunch at the University Club with Logan Wilson (President, American Council on Education).

I met with Sam Silver (Director, Space Sciences Laboratory, University of California). He gave me a status report summary which indicated things are going well, and with a \$1 million budget the building is about to be started.

Commissioners Haworth, Wilson and I were briefed by Al Weinberg, McPherson, Rupp and others from ORNL on their SNAP work, especially the boiling potassium fast reactor, and the argon or neon cooled Brayton cycle reactor.

Bill Webster called to say he will be happy to accept my invitation to be considered as a member of the GAC.

Wednesday, February 6, 1963 - Germantown

At 9 a.m. I spoke to a Student Council Installation Assembly at Woodrow Wilson High School on "Peaceful Uses of Nuclear Energy." My hosts included Dr. James W. Suber, Principal, and James Luikart, President, Student Council.

At 11:30 a.m. I presided over Information Meeting 242 (notes attached). The Commission discussed the proposed Presidential announcement regarding a study on



ATOMIC ENERGY OF CANADA LIMITED
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OFFICE OF THE PRESIDENT

OTTAWA...21st December, 1962

Dr. Glenn T. Seaborg,
Chairman,
United States Atomic Energy Commission,
Washington 25, D.C.

Dear Dr. Seaborg,

I feel that I should draw to your attention the fact that for some time now members of your staff have been making quite misleading statements to producers, users and vendors of radio isotopes and associated equipment regarding the basis of operation of our Commercial Products Division. We have heard of this not only in the United States but in foreign countries as well. Although we have been aware of what has been taking place, I have felt that it was part of the give-and-take of commercial business.

Just recently, however, it seems that this kind of thing has been stepped up.

Mr. J. N. Maddox discusses the point in the 29th October issue of Atomic Energy Clearing House. More recently, I have had a letter from a friend who has a responsible position in the U.S., saying that he had been shown at Germantown "chart after chart showing CPD sales and the effect they had on Oak Ridge sales". He goes on - "Their concern stemmed not so much from Oak Ridge's loss in revenue as from how difficult Canada was making it for U.S. private companies to start up isotope production. The gist of their complaint was that CPD is heavily subsidized and, as such, is being unfair competition to the U.S."

I am writing to let you know of this criticism of our CPD operation that is being made by some of your staff and to give you some of the true facts. Our Commercial Products Division operates entirely separately from the rest of AECL and it follows normal commercial accounting practices. Its separate facilities in Ottawa were constructed with capital loaned for the purpose, and these are depreciated under normal commercial rules. It spends 10% of its gross income on research and development and still makes a gross profit of several percent each year. I am enclosing a copy of our Annual Report, which records the financial aspects of our Commercial Operations in Exhibits II and IV.

The only other possible source of a partial subsidy would be in the price charged to CPD for isotopes produced in our Chalk River reactors. This production is also costed using normal commercial procedures, taking full account of the cost of neutrons from enriched material needed to overcome any load in the reactors. Although Chalk River makes very little profit on isotope production, we do recover costs.

We think we know why our CPD has been reasonably successful in the U.S. and in many other areas of the world. One of the factors is that they go out and sell rather than simply take orders. You will see from their financial statement that they have a fairly large selling expense item.

I am not disturbed about the normal cut and thrust of commercial competition; I do not like competition based on misrepresentation. No more, I am sure, do you. I thought it only fair to alert you to what is going on in this regard.

Yours sincerely,


J. L. Gray

ATOMIC ENERGY CLEARING HOUSE

Congressional Information Bureau, Inc.

Mills Building
Washington 6, D. C.
October 29, 1962

Vol. No. 8 - No. 44 - Page 3

FOREIGN IMPORTS, REGULATION AND THE LACK OF A SUFFICIENT VOLUME OF BUSINESS to warrant capturing a market have been named by radioisotope suppliers as the major problems facing the industry in the U.S., according to John N. Maddox, Technical Assistant to the Director, AEC Division of Isotopes Development.

In spite of these difficulties, the industry feels that the definite trend in the U.S. isotope business is that it is increasing, from a very few percent in some companies to as much as 50% a year in others, Mr. Maddox declared. He reported the industry as feeling that if the above problems are not "resolved", the industry will not grow as rapidly as it ought to grow. (According to Bureau of Census figures, 1961 shipments of the radioisotope supply industry were valued at about \$6.2 million.)

Mr. Maddox had recently visited some 15 of the larger radioisotope supply companies. There are about 40 such, ranging in sales from a few thousand dollars to about \$2 million. Purpose of the survey was to obtain a view of the current status of the industry.

He advised this publication that the industry has a healthier business atmosphere than had been realized, that there were definite trends of growth in the business and that the companies were apparently planning for greater growth and all seemed to be getting prepared for an increased market in their products. Among indicators for the above, he cited company increases in staff and facilities; definite results of competition, particularly in the labeled compounds field (whose total business per year he felt to be about \$4 million); the fact that companies were beginning to dominate fields; and also a merger trend.

Commenting on radioisotope imports, Mr. Maddox cited Census Bureau figures which reported the value of 1951 imports at \$5,399 and 1961 imports at \$1,509,058. He declared that the people in the business of selling radioisotopes identified imports as the number one problem. The area of business which has been experiencing the greatest competition is those companies in the business of encapsulating large cobalt and iridium sources and fabricating units, for use in radiography, laboratory research and medical treatment, with the industry specifically citing the competition from Atomic Energy of Canada Ltd.

Mr. Maddox indicated that some of the industry declared the import competition became worse last year when the tariff on imports of devices for medical treatment was removed, for devices containing the radioisotope and which are going to be a non-profit institution. Specifically cited here by the industry were AECL teletherapy units going to hospitals.

In other comment on imports, Mr. Maddox noted a recent attempt, which began around the summer of 1961, by the USSR to penetrate the U.S. market. He cited full page advertisement in English-language publications which emphasized the USSR desire to export isotopes and noted that copies of price lists have been sent to suppliers of isotopes in the U.S. (Imports of USSR radioisotopes have reached \$13,645 in 1962 - see import figures in our V.8, Nos. 44, 34 and 30.)

Questioned as to the "solution" desired by the industry for the import problem, Mr. Maddox felt that the industry feelings coalesced in a desire to be able to purchase in the US the basic material at a price which would allow it to compete with imports.

Considered by some of the industry as a necessary long range solution, was the "number one" need for a company which had enough corporate ability and experience to start with the raw uranium and wind up with delivery of the fabricated piece of hardware. It was felt that the industry is a piece-meal business, where AEC has been the bulk supply of the product and someone else refined the product, and someone else put it in a piece of hardware, and someone else sold it.

A problem cited by all the companies visited was that of regulation. The industry held that a significant portion of the cost of their product was due to costs involved with regulatory matters, and that this type of cost was not a significant business problem in the other countries which were competing for the U.S. market. This regulatory trend was also seen to be worsening in that the industry would now not only have to deal with the AEC but also with various individual states having regulatory agreements with the AEC.

Another problem seen by the companies surveyed was that the volume of business just has now grown large enough to offer enough of a financial reward for a significant effort to capture the market by some companies.

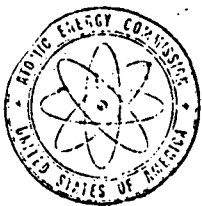
Mr. Maddox pointed out that the industry started with only a few small companies, and that while these have grown a little, it has only been in the last few years that large companies have started entering the market. Seeing the beginning of a trend to move from small companies into large companies, he felt that as the volume of business increases the larger old-line companies will come in.

It was noted with respect to U.S. exports of radioisotopes, that the percentage of exports to total business varies in the industry from 0 to 50%, with the companies which are putting in a real effort being the ones which are getting the export market. He declared that all of the companies he visited had indicated they have become increasingly aware of the overseas market.

As regards areas showing the greatest potential for active growth in the quantities of radioisotopes needed, Mr. Maddox cited isotopic power and process radiation.

He pointed out that the next step in isotopic power is that of its adaptation to commercial use. Showing the growth potential in this application, he noted that prior to 1961 the grand total for Sr 90 was less than 1,000 curies (this mostly for beta ray thickness gauges) and that during 1961, on the order of 100,000 curies were distributed, and that the distribution might possibly be 500,000 curies for 1962. Commenting that the growth potential for isotopic power could reach several million curies per year, he observed that the material is currently being produced by Oak Ridge and the Martin Co. and that commercial groups are aware of this growth potential and are proceeding to build privately financed facilities to fabricate other isotopic sources.

With respect to process radiation, Mr. Maddox declared that this would involve using gamma and beta radiation for such things as food pasteurization, making bulk chemicals, for sterilization of medical supplies and for production of wood-plastic alloys.



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

UNCL. BY DOE
NOV 86

COPY NO. 15

February 6, 1963

INFORMATION MEETING 242

11:20 a.m., Wednesday, February 6, 1963 - Chairman's Conference Room A-457

1. Appointment of Member to the GAC

The Chairman said Mr. William Webster had accepted the appointment. (Secy)

2. Nuclear Fuel Services Negotiations

The Chairman said Mr. McGuirk had called yesterday to say he has essentially obtained the additional financial assurance and said he would be pleased to be present at the proposed meeting with the utility representatives. Mr. Hollingsworth said the invitation for a meeting scheduled for 11:00 a.m. on February 15 will be sent today by telegram. The Chairman said he would telephone Mr. Roddis, AIF. (Henderson/GM/Secy)

3. Proposed Letters to Mr. Chatenet and Senator Pastore re KRB Reactor

The Chairman said he would sign the letters today subject to Commissioners' comments. (Henderson)

4. Chairman's Meeting Yesterday with Lorne Gray, Atomic Energy of Canada, Ltd.

The Chairman said in his meeting with Mr. Gray they had discussed briefly Mr. Gray's letter re the reported complaints by AEC staff (Isotopes Div.). The Chairman will send Mr. Gray a confirming letter of their discussion. (Henderson)

5. President's February 2 Letter Approving Production Through 1972

The Chairman noted receipt of the Presidential letter and the request for a joint AEC-DOD study of plutonium and tritium requirements through 1972 with a due date of May 1. The Chairman requested the latter study include a look at curium 244 and other isotope requirements, and that consideration be given to the desirability of requesting a later due date. Mr. Hollingsworth reported a discussion paper re approved production through 1972 will be available for discussion with the Commission next week. (Baranowski) *4:00 220/ Production through 1972*

6. Schedule of Events at NTS

The Chairman reported White House approval of the proposed Friday schedule and requested that AFTAC and ARPA be informed. The revised announcement will be circulated today for comments. (Ink/Clark)

7. Statement re FLOWSHARE Program in AEC Annual Report

The Chairman noted the White House concern regarding the FLOWSHARE Program statement and said he would send a letter to the Joint Committee clarifying the Commission's planning re the "five-year program".
(Kelly/Henderson)

8. Proposed Presidential Announcement re Study on Energy Resources

9. Draft Testimony for the 202 Hearings

Mr. Ink said additional comments could be submitted to him or Mr. Manly and he will review the testimony with Dr. Haworth later today.

10. Los Angeles Water and Power and Connecticut Yankee Atomic Power Company Proposals

Mr. Hollingsworth reported that staff is prepared to discuss the proposals with the Commission and the Chairman suggested perhaps the matter can be taken up this afternoon.

11. Armed Forces Management Magazine Article re AEC Nuclear Power Program

The Commissioners agreed this matter should be discussed with Dr. Gerald Johnson, MLC. (GM)

PRESENT

Dr. Seaborg	Mr. Hollingsworth
Dr. Wilson	Mr. Henderson
Dr. Haworth	Mr. Schur
Mr. Ramey	Mr. Ink
Mr. Palfrey	Mr. McCool

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Secretary

W. B. McCool
Secretary

energy sources and its possible adverse affect on the 202 hearings. We prefer having a positive statement from the President saying that the Administration will implement the Civilian Nuclear Power Report.

I had lunch with Spof English and Russell Poor to discuss my letter to President Andrew Holt of the University of Tennessee endorsing the use of Oak Ridge National Laboratory by the University for graduate work.

At 3 p.m. I presided over Commission Meeting 1911 (action summary attached). The Commission discussed more points at issue for the NFS contract, such as material accountability. It will agree to 97.5% recovery for the first two years; then the Commission will study the possibility of going to 99%.

I called Bundy and recalled that about a month ago I mentioned to him the problem we anticipate at the 202 hearings this year when JCAE asks us what the President has done about our civilian power report. I mentioned at that time Bundy thought we should draft a letter, addressed to the AEC, for the President's signature. I said we have a such a draft available but is now complicated by pressure to have the President make an announcement about another study in the field of energy--supposedly, the result of a White House directive to BOB last November.

I said that from the standpoint of the 202 hearings, the timing on this announcement will be very unfortunate since last year the request from the President came just before the 202 hearings for a nuclear power study. This year it would seem like a request to conduct a study of a study. I said I understand that BOB is anxious to make the announcement this weekend, but I asked if there could be a postponement, at least until after the hearings. Bundy said that BOB and Wiesner's office feel our report should be studied further. Also, our report looks at only one side of the total energy picture and requires study. Bundy said he will check into the points I raised.

Charles Johnson called and said Bundy asked him to look into the issue Bundy and I had just discussed. He asked me to send him a copy of our draft letter for the President to sign. I said that if the President's letter is not forthcoming we will use the backup material from the President's Budget message. Johnson suggested we use the letter the President sent us when he received the power report. I said I will restudy the letter. He said that the letter is a result of a desire to take a holding action but not to commit the President. Johnson said he talked to Conway and mentioned to him we do have a requirement for developing a national energy policy. At this point the Administration is not going all out on nuclear energy because it wants more facts. I said, if the President does not sign a letter along the lines we are suggesting, he probably shouldn't issue the Presidential announcement of this overall study (draft received today) until after the 202 hearings.

Johnson said the Administration will go as far as possible on nuclear energy, without committing itself on the total energy picture, and will do whatever is possible to help us with the hearings. Johnson said he is thinking in terms of a statement to be read at the hearings, rather than a Presidential announcement. I said I think the AEC can pull off something like this very well.

Thursday, February 7, 1963 - D.C.

At 8 a.m. I attended the Presidential Prayer Breakfast held in the Grand Ballroom of the Mayflower Hotel.

UNITED STATES GOVERNMENT

Memorandum

UNCL. BY DOE
NOV 86

TO : R. E. Hollingsworth, Acting
General Manager

DATE: February 7, 1963

Approved R. E. Hollingsworth

FROM : W. B. McCool, Secretary

Date 2/8/63

SUBJECT: ACTION SUMMARY OF MEETING 1911, WEDNESDAY, FEBRUARY 6, 1963, 2:50 P.M.,
ROOM A-410, GERMANTOWN, MARYLAND.

SECY:MK/JFG

Commission Decisions

1. Minutes of Meetings 1837, 1838, 1839, 1890, 1891, 1892, 1893, 1894, 1895, 1896, 1898, 1902, and 1903

Approved, as revised, Minutes of Meetings 1837 through 1891, and 1902. Minutes of Meetings 1837 through 1891 are subject to Commissioner Haworth's comments.

I will reschedule the Minutes of Meetings 1892, 1893, 1894, 1895, 1896, 1898, and 1903.

2. AEC 25/235 - Proposed Safety Rules

Approved. (Betts)

3. AEC 25/236 - Proposed Safety Rules

Approved. (Betts)

4. AEC 25/237 - Proposed Safety Rules

Approved. (Betts)

5. AEC 25/238 - Proposed Safety Rules

Approved. (Betts)

6. AEC 25/239 - Proposed Safety Rules

Approved. (Betts)

7. AEC 25/240 - Proposed Safety Rules

Approved. (Betts)

8. AEC 25/241 - Proposed Safety Rules
Approved. (Betts)
9. AEC 25/242 - Proposed Safety Rules
Approved. (Betts)
10. AEC 25/243 - Proposed Modifications to Safety Rules
Approved. (Betts)
11. AEC 343/2 - Commissioners' Records
Approved. (Secretary)

I will discuss procedures re disposition of current records with the Commissioners' staff.
12. AEC 901/45 - Attendance of U.S.S.R. Nationals at Argonne National Laboratory Conference
Approved. (Wells)

The Chairman said he wished to meet with Drs. Flerov and Kosyakov. (Wells)
13. AEC 604/72 - U. S. Department of Labor Proposed Radiation Safety and Health Standards
Discussed.

The Chairman requested that AEC 604/72 be brought back to the Commission for consideration after consultation with members of the Labor Management Advisory Committee. (General Counsel / Director of Regulation)

*Mr. Bloch, Dr. W. W. Woodruff
& Dir. of Reg.*

February 7, 1963

14. AEC 881/52 - Yankee Correspondence Relating to Standard Forms of Plutonium and Uranium and Use Charges

Discussed.

The Commission accepted the conclusion in paragraph 8 of AEC 881/52. (Fine)

The Commission requested discussions with the utilities on the termination of use charge in accordance with paragraph 11 of AEC 881/52, except that the period would be extended to June 30, 1970. The utilities should be informed that if the Commission recommends extending the period for waiver of use charges the matter would have to be submitted to the JCAE. (Fine) *Green*

15. AEC 881/53 - NFS-AEC Base Load Contract Negotiations

Discussed.

The Commission agreed to accept as a fallback position the NFS proposal for measurements-accountability including the establishment of an advisory board at the end of a two year period to make recommendations on recovery guarantees based not only upon the performance of the NFS plant, but also on other pertinent data. (Vinciguerra)

16. AEC 881/54 - Reasonable Charges for Industrial Chemical Processing

Discussed.

You noted early circulation of a background paper containing pertinent questions for discussion with the utility companies during the forthcoming meeting. (Zaranowski/Secretary)

17. Special Weapons Briefing

Noted.

18. Draft Testimony for 202 Hearings

Further revisions will be reviewed with the Commissioners this morning. (Done)

Other Business

1. Announcement of NTS Event

The Commission accepted the proposed announcement. (Setts)

2. Agenda Revisions

The Commission requested the Rover Briefing be rescheduled for the week of February 10. (Secretary)

Commissioner Haworth requested that the SNAP Briefing schedule be revised. (Secretary)

3. Proposed Presidential Announcement re Study on Energy Resources

The Chairman requested discussion with the White House staff. (Secretary)

4. White House Response to Civilian Nuclear Power Report

Commissioner Haworth noted he would informally discuss the matter with Mr. Keeny of the White House staff. (Secretary)

Items of Information

1. Intelligence Briefing

2. Discussion of Lawrence Awards on Friday, February 3, 1963

3. Review of Mr. Bieniller's Speech

4. Letter to Dr. Jette re Award

5. UNC Property Purchase

6. Department of Water and Power, City of Los Angeles and Connecticut Yankee Atomic Power Company Reactor Proposals and Staff Discussion with Los Angeles Water and Power re Spectral Shift Reactor

cc: Commissioners

UNITED STATES GOVERNMENT

Memorandum

UNCL. BY DOE
NOV 86

TO : Harold L. Price, Director of Regulation

DATE: February 7, 1963

FROM : W. B. McCool, Secretary

SUBJECT: EXTRACT OF ACTION SUMMARY OF MEETING 1911, WEDNESDAY, FEBRUARY 6, 1963, 2:50 p.m., ROOM A-410, GERMANTOWN, MARYLAND

SECY:MK

Commission Business

AEC 604/72 - U. S. Department of Labor Proposed Radiation Safety and Health Standards

Discussed.

The Chairman requested that AEC 604/72 be brought back to the Commission for consideration after consultation with members of the Labor Management Advisory Committee. (General Counsel/Director of Regulation)

cc: Commissioners

The Commission was briefed by Glenn Fowler on Sandia's SNAP safety study program.

I met with James Nell, Jr. and others from the Kentucky Atomic Energy Authority to hear study plans for a nuclear fuels volatility reprocessing plant in Kentucky.

I attended a reception of the UCLA Alumni at the Lawyers Club.

I attended the Silver Quill Award Dinner of the National Business Publications, honoring Frederick R. Kappel (Chairman of the Board, AT&T), at the Sheraton-Park Hotel.

Friday, February 8, 1963 - D.C.

I called McNamara about the letters from the President dated February 2nd, on our long range production planning objective, stating he would like us to do the same thing for the other phase of the work. He would like an answer by May 1st. I told him this will require us to have some input from DOD by March 15th which is inconsistent with the study DOD is making now and which is due June 1st. McNamara said he can't answer this. I said we may have to go back to the President and tell him the two are inconsistent and will need a little more study. McNamara said he would like to consider this. They have been talking to the White House staff about jobs such as this where inadequate time is given for completion. I said I understand the President is about ready to talk to Rickover on the Nassau agreement, and that he (McNamara) has already talked with him. He said he has talked to Rickover who seems to feel that to participate in a meeting which is to explore design data until late in the process (two or three years) would expose them to information which the Soviets would not have at that time and would run the risk of transmitting it to the Soviets. However, Rick said, if the decision is to go ahead, he would support it. I said that we are ready about now to talk with him.

At 10 a.m. I presided over Information Meeting 243 (notes attached). I signed the letter to President Andrew Holt of the University of Tennessee advising him that the AEC favors their proposed cooperative graduate program with ORNL. (Copy of letter of Holt's response of February 18, 1963, and Russell Poor's explanatory memorandum of January 28, 1963 attached.)

I sent letters (copies attached) to A. M. Petrosyants and V. S. Emelyanov, via Wells, introducing Wells as our envoy to continue negotiations on the U.S.-USSR Agreement for Cooperation in the Peaceful Uses of Atomic Energy.

I sent a letter to President Kennedy asking for approval to give the 1963 Lawrence Awards to Herbert J. C. Kouts (reactor science), L. James Rainwater (nuclear physics), Louis Rosen (weapons research), James M. Taub (metallurgy) and Cornelius A. Tobias (radiobiology).

Underground testing was resumed today with four shots (two pairs of simultaneous shots) at Nevada.

Jerry Johnson called me in connection with my earlier call to McNamara about the study on requirements for reactor products. I said our people feel that in order to do this they will need to have some rather complete input data from DOD by March 15th. He said he is fixing up a memorandum for McNamara's signature to the Joint Chiefs of Staff pointing this out and stating from his standpoint he would like to have the tactical weapons study in his hands by May 1st, because June 1st is the



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

UNCL. BY DOE
NOV 88

COPY NO. 175

February 8, 1963

INFORMATION MEETING 243

9:55 a.m., Friday, February 8, 1963 - Chairman's Conference Room, D. C.

1. ACRS February 6 Letter re N.S.SAVANNAH

The Chairman noted the Commission's concern re the matters raised by the Committee and Messrs. Price and Hollingsworth said they would hope the problems discussed by the ACRS can be dealt with in the Committee meeting in March. (DR/GM)

2. Chairman's Attendance at Meeting with the President, 4:30 p.m. today

3. AEC-DOD Study of Plutonium and Tritium Requirements

The Chairman said he had discussed with Secretary McNamara the problem of the May 1 deadline, and the Secretary will look at the possibility of a later reporting date. Mr. Hollingsworth said he would follow through.

4. Admiral Rickover's Meeting with the President, 12 noon, Monday, February 11

(Dr. Haworth entered the meeting)

5. Discussion Paper re ACRS Role in Aerospace Project Reviews

Mr. Ink suggested the desirability of a joint discussion paper on this subject and the Commissioners agreed and suggested the consideration should include the assumption of establishment of an interagency committee with reference to an appropriate role for the ACRS. (DR/GM)

6. Contract Negotiations with Harvard (see Secretary's Memorandum of Feb. 7)

The Commissioners discussed briefly the proviso relating to the regular or temporary employment of non-Soviet aliens and agreed that contract negotiations should proceed without discussion of this proviso with the University. The matter is to be scheduled for later Commission consideration. (Traynor/Vinciguerra) *see revised page preceding this report*

7. 1963 Ernest O. Lawrence Awards Nominees

Approved. (Secy)

(Dr. Haworth left the meeting)

8. Chairman's February 7 Meeting with Kentucky Delegation

The Chairman reported briefly on his meeting with the Kentucky group to discuss their interest in a chemical processing plant.

9. Letter to President Holt, University of Tennessee, re University/Oak Ridge Program for Placement of Graduate Students

The Chairman said he would sign the letter today and suggested the GAC be informed. (Henderson)

10. Presidential Announcement re Study of Energy Resources

The Chairman said he had spoken to Mr. Bundy regarding the possible reaction to a White House announcement on this subject. White House staff subsequently agreed that it would be desirable for the Commission to discuss this matter in its 202 Hearings testimony. A directive on the study will be issued at an appropriate time.

11. 202 Hearings Testimony

Mr. Ink said final versions will be circulated to the Commissioners today for their weekend review and suggested submission of comments to him on Monday.

12. February 15 Meeting with NIS Utility Representatives

The Chairman said he had invited Mr. Roddis, AIF, and Mr. Roddis will attend the meeting.

13. NIS Events Today

14. Letter to Mr. Bundy re Kaweah Event

15. Nassau Pact Working Group Meeting Today

Mr. Palfrey noted that Mr. Rockwell, Naval Reactors, will attend with him.

16. Letter from President re Civilian Nuclear Power Report

The Chairman reported the White House did not consider it desirable to send such a letter.

17. Robert Ginna's Discussion with Commissioner Wilson re Proposals for Prototype Reactor

Dr. Wilson discussed briefly Mr. Ginna's discussion with him re the possibility of Rochester G & E's construction of a 150 megawatt gas-cooled Peach Bottom type reactor with AEC financial assistance of \$10 million. The Commissioners thought the proposal somewhat premature pending experience with operation of Peach Bottom reactor and other considerations. Mr. Hollingsworth confirmed that Reactor Development staff considers construction of this prototype untimely and Dr. Wilson said he would discuss the matter with Commissioner Haworth. Mr. Ramey suggested the desirability of a design study as an alternative, and the Commissioners agreed this should be considered. (Pittman)

18. Assignment of AEC Representative to Chalk River

Mr. Hollingsworth reported that Mr. Miller Hudson, DIA, will be assigned to Chalk River as the AEC representative. The Commissioners said they would like to see Mr. Hudson prior to his departure. (Wells)

19. Photographs of NTS

20. Agenda for the Week of February 11

Approved, as revised. (Secy)

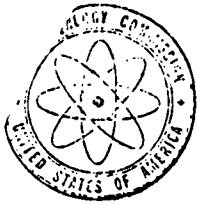
PRESENT

Dr. Seaborg
Dr. Wilson
Dr. Haworth*
Mr. Ramey
Mr. Palfrey
Mr. Hollingsworth
Mr. Henderson
Mr. Price*
Mr. Ferguson
Mr. Ink
Mr. McCool

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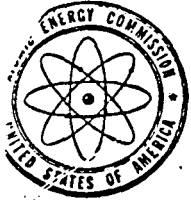
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REVISION

INFORMATION MEETING 243 - February 3

6. Contract Negotiations with Harvard (see Secretary's Memorandum of Feb. 7)

The Commissioners discussed briefly the language of subparagraph 26 F (3) of AEC 89/12 and requested that contract negotiations proceed on the basis of the General Manager's Memorandum of January 30, 1963. Discussion of exceptions under subparagraph 26 F (3) are to be deferred pending further consideration by the Commission. (Treynor/Vinciguerra)



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

FEB 8 1963

UNCL. BY DOE
 NOV 86

Dear Dr. Holt:

Reference is made to Dr. Hilton Smith's December 27, 1962, letter to Dr. Russell S. Poor, Director of our Division of Nuclear Education and Training, transmitting a revised version of a proposal to a Foundation for financial support to institute a broad Ph.D. program in the sciences. This program contemplates increased participation by the University of Tennessee in the summer employment program of the Oak Ridge National Laboratory, the Oak Ridge Graduate Fellowship Program of thesis appointments at Oak Ridge facilities, and in part-time teaching by Oak Ridge scientific staff.

We are pleased to see your great interest in University participation in these approved AEC programs, the expanded use of which should be mutually beneficial. Such opportunities for graduate work are supported by the AEC on a national basis; therefore, we cannot make short or long range commitments to any specific university and, as you are aware, your students will compete on a quality basis. Within these limitations we will cooperate to the extent that program demands and budgetary limitations permit.

The University should be congratulated on its attempts to raise the quantity and quality of its graduate study opportunities, an effort that many universities must make if the long range goals expressed in the December 1962 report of the President's Science Advisory Committee are to be met. We support your efforts towards that end although, as you understand, the AEC cannot cosponsor the University's proposal to Foundations.

Sincerely yours,

(S) W. J. Scofield

✓ Chairman

bcc: Commissioner Palfrey
 bcc: Commissioner Ramey
 bcc: Commissioner Howarth
 bcc: Commissioner Wilson
 bcc: GI
 bcc: ACHED

Dr. Andrew D. Holt
 President
 University of Tennessee
 Knoxville, Tennessee

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THE UNIVERSITY OF TENNESSEE
KNOXVILLE
OFFICE OF THE PRESIDENT

February 18, 1963

UNCL. BY DOE
NOV 86

838 2/25/63

Dr. Glenn T. Seaborg, Chairman
United States Atomic Energy Commission
Washington 25, D. C.

Dear Dr. Seaborg:

Thank you for your letter of February 8 in which you express the Commission's interest in our proposed program for increased cooperation between the University and the Oak Ridge National Laboratory in graduate education in science and engineering. The location of our University and the Laboratory within twenty-five miles of each other should make possible the development of a center of excellence in graduate education in this area, and we propose to do everything within our power to promote such a center. We believe that this is in line with the statements of the President's Science Advisory Committee issued November 15, 1960, and December 12, 1962.

The support provided by the Commission for both programs and individuals at the University of Tennessee has been of great aid to our growing graduate school over the past fifteen years. However, we fully understand that, as a government agency, the Commission must encourage graduate work on a national basis and can only provide funds within its budgetary limitations.

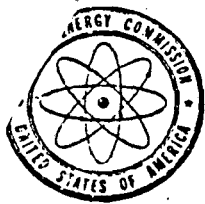
Sincerely yours,



A. D. Holt
President

ADH:lme

cc: Vice-President H. E. Spivey
Dean Hilton A. Smith



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

January 28, 1963

MEMORANDUM FOR CHAIRMAN SEABORG

THROUGH GENERAL MANAGER *RSW*

SUBJECT: PROPOSAL OF UNIVERSITY OF TENNESSEE TO THE FORD FOUNDATION

938 2/7/63

ENCL. BY DOE
NOV 86

The University of Tennessee has prepared a proposal for submission to the Ford Foundation, and perhaps other foundations, such as the Sloan Foundation, requesting a grant of \$3,960,000 over a period of ten years for strengthening their graduate programs in science and engineering. Since the proposed program embraces the concept of heavy utilization of the facilities and staff of the Oak Ridge National Laboratory, the University has forwarded advance copies to the AEC and requested a letter from you which they wish to bind into their formal proposal.

The purpose of this memorandum is to summarize the proposal, point out the major facets of possible AEC participation, and recommend the circumstances under which you may respond to the University, giving encouragement, but not making firm, long range commitments.

The University of Tennessee proposal covers a ten-year period, during which they plan to increase their Ph.D. production to 50 per year, with foundation support reaching a maximum and then tapering off to zero at the end of the period, at which time the University of Tennessee would carry the entire burden on their campus, with the AEC carrying the costs of summer employees and graduate students doing their thesis research at ORNL as a part of the normal programmatic research at the Laboratory.

The University would start its program with 25 graduate students entering per year, building to 50 per year, with 50 Ph.D.'s being graduated per year after a steady state is attained. The first two academic years of each student's program would be spent at the University, with no AEC funds involved. However, each student would be expected to have a summer appointment at ORNL, funded through the normal personnel budget, for a steady state total of 100 per year,

January 28, 1963

since each student would have two summer appointments. Following these first two years, it is anticipated that 20 percent of the students would do their thesis research at the University with the other 80 percent conducting their thesis research at ORNL through the medium of the Oak Ridge Graduate Fellowship Program administered by ORINS. At steady state this would be approximately 80 graduate students per year, since the average research period per student is projected at two years.

In addition to the above participation, the University anticipates that an increased amount of their instruction would be conducted by ORNL senior scientists. This would be done at no direct cost to AEC, since it would follow the current AEC-ORNL-University of Tennessee agreement that ORNL staff may be released for teaching duties up to 20 percent of their time per week. The University pays the staff directly; their ORNL salaries are reduced by an amount equivalent to the reduced working period. No specific calendar year schedule is stated in the proposal. It appears reasonable to assume that the first significant recruiting for this program could not occur prior to the Spring of 1964. Based on the 1964 estimate, the projected impact on ORNL planning would be approximately as follows:

<u>FY</u>	<u>Summer Employees</u>	<u>Thesis Appointments (effective Fall)</u>
1966	25	—
1967	75	—
1968	100	20
1969	100	60
1970	100	80
1971	100	80

This time schedule could advance by not more than one year. It is more likely to move at a slower pace until the operation and prestige of the program is well established. Thus, the first real impact on Oak Ridge budgeting would begin about FY 1968, reaching its maximum and holding constant about FY 1970. The steady state costs are estimated at \$165,000 per year for summer employment, \$416,000 for stipends for Oak Ridge Fellows, as compared to \$134,000 in our current budget (FY '63) for this program, and \$800,000 per year for ORNL research overhead costs. It should be noted that according to current budgeting practice only the Oak

Ridge Fellowship stipends would be budgetary increases (from 07 the costs of Training, Education and Information,) since the summer and year round thesis appointments would be supported by the normal research and development activities of the Oak Ridge National Laboratory.

From an over-all policy viewpoint the University of Tennessee proposed program fits into already established AEC programs for university-national laboratory cooperation and specific programs in the Oak Ridge complex. Employment of graduate students for summers or for thesis research work is standard practice at a number of AEC sites. At Oak Ridge, ORINS administers the Oak Ridge Graduate Fellowship Program, using AEC funds provided for them for administrative costs and stipends of the fellow, with the balance of the costs absorbed by the programs upon which the student works. AEC has already approved the principle of ORNL employees being released to conduct classes and seminars at the University of Tennessee. Therefore, no change in policy is required to permit the University of Tennessee and other universities to proceed with this sort of planning. The major significance of the University of Tennessee proposal in terms of the possible impact upon the AEC is the number of students involved, which is considerably higher than the numbers enrolled in previous years. It could have a significant impact upon the staffing of ORNL, especially the split between the permanent and temporary staff members. In any event, it must be borne in mind that these AEC university cooperative programs have to remain open to students from all universities for participation at all national laboratory sites, not merely for students from one university to participate at a specific laboratory; namely the University of Tennessee and ORNL. Thus, implementation of the proposed program will also have to depend on the total AEC-universities-national laboratories relationship and program.

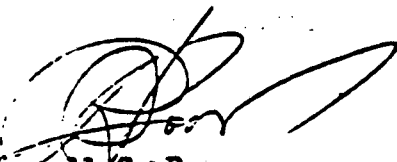
For example, since the inception of the Oak Ridge Graduate Fellowship Program in 1947, some 62 Ph.D. and 14 M.S. degrees in science and engineering have been awarded by 28 different universities. Somewhat over 20 of these, or about 25 percent, were awarded by the University of Tennessee. Since ORINS is currently conducting a drive for greater over-all university participation in this program it would appear desirable to provide sufficient space so that the new University of Tennessee totals would not greatly exceed their previous percentage participation. The DNET Budget Assumptions currently projected through FY 1968 appear sufficient to include the University of Tennessee projections, though perhaps not sufficient to provide for many other universities and more widespread laboratory participation. This will be

January 28, 1963

reexamined by the staff in the projections through FY 1973 which have already been requested. In addition, it may be necessary to have further discussions with National Laboratory Directors to assure that university cooperative programs are adequately provided for under total laboratory staffing plans.

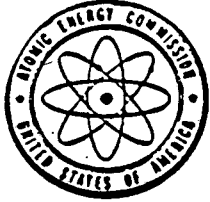
The staff recommends that the attached letter for the Chairman's signature be dispatched to the University of Tennessee, encouraging them to proceed with their plans. No further action by the Commission is required at this time. Future budget submissions probably will include funds for further expansion of this type at other AEC sites. The University of Tennessee understands that AEC is making no firm commitments either with respect to the continuation of the private teaching assignments or the extent of the fellowship program.

We recognize that the GAC, in their recent communication after the informal discussions on the education program on January 7, have raised questions about the validity of increasing pre-doctoral fellowships at AEC sites and expressed a preference for more post-doctorates. We will answer their comments separately, but it should be noted that the laboratory directors have endorsed the concept of pre-doctoral fellowships and Dr. Alvin Weinberg, in particular, has greatly encouraged the establishment of a larger and broader pre-doctoral program at ORNL.



Russell S. Poor
Director
Division of Nuclear Education
and Training

cc: Commissioner Wilson
Commissioner Haworth
Commissioner Ramey
Commissioner Palfrey



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

DO FILE

FEB 8 1958

UNCL. BY DOE
NOV 86

Dear Mr. Petrosyants:

This letter will serve to introduce Mr. Algia A. Wells of the U.S. Atomic Energy Commission who, as Director of the Division of International Affairs, is primarily concerned with US-USSR exchange matters. He is accompanied by an associate, Mr. Melvin Abrahams. As they were to be in Europe at the time of the review of the over-all scientific and cultural exchanges agreement, I thought they should take advantage of this opportunity to express my thoughts concerning the arrangements for cooperation in the peaceful uses of atomic energy.

I would be pleased if they could assist in clarifying any questions that still remain in order that the appropriate document could be signed sometime this Spring. I would hope that you and Professor Emelyanov can come to Washington in the near future for this purpose and, if your schedule permits, to visit some of our facilities.

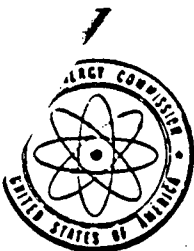
Sincerely,

(Signed) Glenn T. Seaborg

Chairman

Mr. A. M. Petrosyants
Chairman
State Committee of the USSR Council
of Ministers on the Utilization
of Atomic Energy
Moscow, USSR

CC: Chairman (2)



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

DC FILE

FEB 8 1963

UNCL. BY DOE
NOV 86

Dear Professor Emelyanov:

I have asked Algie Wells to give you this letter if he is able to see you in Vienna.

I have instructed Wells to do whatever he can to clarify to you our thinking in regard to our proposed exchange arrangement on unclassified, peaceful uses of atomic energy.

As you no doubt know, some of the staff in our Department of State who work on a day-to-day basis with the US-USSR cultural and scientific exchange matters are planning a brief trip to Moscow in February to discuss some of the details with your people there. Wells and his assistant, Melvin Abrahams, are the staff people concerned with details of the arrangement in the U. S. Atomic Energy Commission. I would be very glad if, by going to Moscow with the State Department team, they could be of help in conveying our respective views to each other concerning the atomic energy exchanges with the view that we could sign the appropriate document sometime this Spring.

My colleagues on the Commission join me in sending you our good wishes.

Sincerely,

Ernest T. Seaberg

Chairman

Professor V. S. Emelyanov
State Committee of the USSR Council
of Ministers on the Utilization of
Atomic Energy
Moscow, USSR

cc: Chairman (2)
Commissioner Haworth
Commissioner Palfrey
Commissioner Ramey
Commissioner Wilson

due date. Jerry asked what date would seem reasonable to me on the reactor products paper, and I said probably September.

From 4:30 to 5:30 p.m. I attended a meeting with the President in the Cabinet Room of the White House. Others attending were: Vice President Johnson, Secretary Rusk, Secretary McNamara, Paul Nitze, Ros Gilpatric, Mac Bundy, Jerry Wiesner, Bill Foster, Adrian Fisher and John McCone. At the beginning of the meeting I informed the President that the four underground tests today, that is, the two pairs of tests, took place without apparent incident. In response to questions by the President, I explained the timing of the tests and the purpose of such timing, including the study of the capability for detection of simultaneous tests.

Foster then began to discuss the U.S. position in the test ban negotiations, for which he is going to Geneva tomorrow. He said that the U.S.-USSR test series had not upset the balance, and that the key to any test ban is underground tests because the detection of the other types is easy and not at issue. The only way in which some imbalance might be introduced through testing is in the yield-to-weight ratio and in the development of pure fusion weapons.

In the recent discussions, the USSR has been rigid on its insistence on no more than two to three on-site inspections. They claim that the U.S. has said that two to four would be adequate. There is apparently some feeling by them that Wiesner has said this, and that Dean said it to Kuznetsov. (Dean denies this and points out that no interpreter was present during this informal conversation.) Dobrynin has apparently told columnist Walter Lippmann that the U.S. has changed its position and had earlier suggested that two to four on-site inspections would be adequate. The President suggested that we might get for the record a letter from Dean to Rusk, pointing out that he never suggested so small a number of on-site inspections. Foster said that Akalovsky confirms Dean's claims on this matter.

Foster said that the number of automatic seismic recording stations is another issue. He said he would like to have authority to go eventually to six on-site inspections as a fall-back position. He traced the reasoning by which 450 seismic events in the USSR can be reduced to 45 or 50 suspicious events, and thus we would be inspecting one out of six or seven. He thinks that this number can be further reduced to 25 or 30 by unilateral intelligence.

Nitze said that the people in DOD regard the number of suspicious events as being larger than that stated by Foster. McNamara felt that this matter ought to be studied by a group to examine the range of numbers, and that he would like to be a member of that group.

I pointed out that the conditions for the on-site inspections are important. I said that the people in AEC feel that 500 to 700 square kilometers of area should be subject to inspection, rather than 300-500. I also mentioned the concept of an elliptical area for inspection, which could allow a smaller area to be adequate than is the case for a circular area.

Foster said he feels that five to ten automatic recording stations at the right locations might be adequate. He pointed out that the USSR is offering to furnish data from their 73 seismic stations daily, and that we would offer daily data from our 76 seismic stations. These do not include, in either case, the classified seismic stations.

The President asked whether McNamara would agree to six on-site inspections, with about a 500 square kilometer area of the shape that I suggested. McNamara said that he would support the six, but he needs to go into the matter in more details.

Rusk said that we should get other matters, such as the shapes of the areas, etc., nailed down before we go into the numbers. The President said he thinks six should be the rock-bottom position and that it should be left to Foster how to present it, and as to when to bring out the number six. He asked whether this could all be worked out in the next few days. McNamara thought it could, with representatives of DOD, plus Wiesner's, McCone's, Foster's and my people working on it.

The President said we should proceed on the assumption that the USSR will cheat, and then work out the advantages, that is, compare what they might gain by cheating with the advantages that banning tests would have with respect to the Chinese situation. He thought that a government briefing book should be prepared, which we could all stand on. Wiesner raised the question whether the automatic stations in the USSR would be good or bad. He said he understands that Nitze thinks they would be bad from our point of view.

Foster indicated that he thinks we should declassify the AFTAC work because the American people don't know how good this is. It would then be possible to refute Hosmer's arguments. He also said that he, personally, thinks we need stations in the USSR.

Rusk said he thinks they are a technical necessity and he is surprised that some think they are not. He has been basing his public statements on his understanding that they are a technical necessity.

Nitze indicated it would be much better to have some U.S. personnel in the Soviet stations. McCone said that the USSR at one time had agreed to such stations which would include U.S. personnel. The question was merely whether the number should be 17 or 21. He pointed out that the people on the Hill are concerned about the continual lowering of our numbers. He recalled that at one time Killian argued that 100 on-site inspections per year was the absolute minimum.

The President said that, in his opinion, the whole reason for having a test ban is related to the Chinese situation. Otherwise, it wouldn't be worth the disruption and fighting with Congress, etc.

Nitze said that, if the French kept testing during a period of a test ban treaty, the Russians would abrogate anyway. The President raised the question whether we could give information on weapons to the French and hence encourage them to stop testing. Nitze said he feels the Russians would then worry about Germany's getting the information, and this would lead to a bad situation. Perhaps it would be better to get the Russians to agree ahead of time to accept the French testing situation.

The President then asked about the procedure for getting material ready in the next few days. Bundy said there are materials on hand which he thinks could be circulated tomorrow. Then we should sit down with a minimum number of people and this could be worked out after the President leaves the meeting.

The President felt that we shouldn't discuss the number six on-site inspections with the JCAE at this time. The President asked what the neutral nations prefer in this regard, and Foster said that they are pushing for three to eight on-site inspections.

Rusk again said that we should work on all aspects of the treaty, except the numbers, at the start.

After the President and Vice President left, the group met further. It was decided to work up in the next few days a briefing book, along the lines discussed at the meeting. This book, for example, would trace in detail how the 450 seismic events per year are reduced to some 45 or 50 suspicious events.

Saturday, February 9, 1963 - D.C.

I worked in the office until 3 p.m.

I had lunch with former Commissioner John Graham at the Metropolitan Club. He wants to interest me in some of his plans for developing versatile (many activity type) companies after I complete my AEC assignment. He is still interested in Rickover's Seed and Blanket concept and is trying to find a utility combine to build it.

From 3 p.m. to 5:30 p.m. I attended a follow-on meeting to the one I attended yesterday on our test ban position with the President. We met in Fisher's office at the State Department. Others attending were Long, Scoville, Nitze, Wiesner, Keeny, Betty Gough, Northrup, Barber and others. The purpose of the meeting was to outline the assignments for preparation of a briefing book, to be completed by next Thursday, defining the U.S. position. AEC is to help in the comparison of the potential U.S. and USSR advances obtainable by testing, possible USSR advances obtainable by clandestine testing, the effect of a possible USSR abrogation of the treaty, measures needed to keep U.S. weapons laboratories strong, and the number and nature of required on-site inspections.

Sunday, February 10, 1963

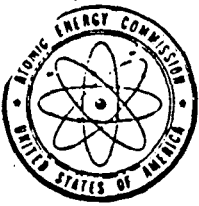
I read AEC papers and journals and worked on the following speeches: "Plutonium - Its Beginnings," to be presented in Chicago, February 18th; testimony for a 202 hearing, February 20th; "The Transuranium Elements" at the Naval Research Laboratory, February 11th; and "Education for the Third Revolution," to be given in Chicago, March 3rd.

Monday, February 11, 1963 - D.C.

At 9:40 a.m. I presided over Information Meeting 244 (notes attached). It is noted that we received approval from the President for the KAWEAH shot (pre-COACH) for the production of transuranium elements. The Circuit Court of Appeals (7th Circuit) reversed the AEC Patent Compensation Board ruling on the Herbert Anderson case to which the Statute of Limitations applies. This is good news and means the case can now be heard on its merits.

I had lunch with a group at the Naval Research Laboratory and then toured the thermonuclear work area, the swimming pool reactor area and the high temperature section.

At 2:30 p.m. I gave the 11th Annual Thomas Edison Memorial Lecture, "The Transuranium Elements," at the Naval Research Laboratory under the sponsorship of the NRL branch of the Scientific Research Society of America (SESA).



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

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NOV 86

COPY NO. 105

February 11, 1963

INFORMATION MEETING 244

9:40 a.m., Monday, February 11, 1963 - Chairman's Conference Room, D. C.

1. AEC 604/73 - Response to Draft Statement of the Federal Radiation Council
"Council Policy Regarding Iodine in Fallout"

Mr. Price commented that if the Commission wished to hold to its position re the FRC draft statement on "Policy Concerning Radioactive Iodine in Fallout", as set forth in the Commission's letter of December 26, 1962, it would not be necessary to transmit another letter at this time. The Chairman confirmed with Dr. Haworth that reiteration of the Commission's previous position, when the matter is discussed at the Council meeting on Wednesday, would be the appropriate course of action. The question of an executive secretary to the Council was discussed briefly and the Commissioners agreed Dr. Haworth should use his own judgment in this matter at the meeting. I will schedule the paper for Commission discussion on Thursday, February 14. (Secy)

2. New York February 18 or 19 Meeting to Discuss Consolidated Edison's
Reactor Proposal

In response to Dr. Wilson's query, Mr. Price said Mr. Lowenstein will be present at the meeting to discuss the Commission's licensing procedures, and that he will make it clear the Commission has not yet looked at the proposal on its merits.

3. White House Approval of the Kaweah Event, and Mr. Hollingsworth's Report
on Friday's NTS Events

4. Testimony for 202 Hearings

The Chairman suggested that any further comments by the Commissioners be given to Mr. Ink today.

5. Discussion of "Faculty Compensation" at FSAC Meeting Monday, February 18

The Chairman noted Dr. Wiesner's staff had requested his comments on the draft document and said he expected to review the document on receipt and will check the possibility of Dr. Haworth attending the meeting in the Chairman's absence. (Henderson)

6. Letter to Secretary Gilpatric re Test Planning

At Mr. Hollingsworth's suggestion the Commissioners agreed this matter should be discussed in conjunction with AEC 1130 - Test Planning. (Secy)

7. Chairman's Report on Meeting at the White House Friday, February 8

8. Dr. Wilson's Discussions with Mr. Ginna re Rochester G & E's Proposal

Dr. Wilson said he had discussed the matter further with Mr. Ginna and suggested that Mr. Ginna consider the Spectral Shift type reactor. Dr. Wilson will discuss the Rochester proposal with Mr. Hollingsworth and the staff today.

9. Energy Resources Study

10. Status of Authorization Bill

Mr. Ramey noted the importance of assuring that the bill bears an appropriate tie-in to the 202 hearings testimony.

11. Congressman Albert Thomas' Query re Assistance to Texas A & M

The Chairman requested preparation of an early reply. (Henderson/McDaniel)

12. February 8 Working Group Meeting re Nassau Pact

Mr. Palfrey reported briefly on the meeting at which Naval Reactors staff were in attendance and said Admiral Lee will now be in touch with Admiral Rickover and staff to obtain Naval Reactors input on the further discussions. He added he thought it would be desirable for Admiral Rickover to discuss this matter with the Commission later this week. (Secy)

13. Mr. Ramey's February 7 Memorandum re Four-Reactor Nuclear Powered Aircraft Carrier

Noted. Dr. Haworth added that Dr. Piore, Chairman of the Navy Scientific Advisory Committee had advised him that the Committee is supporting the nuclear carrier.

14. Report on ENTERPRISE Accident

The Commissioners requested a brief report. (Secy)

15. District Court Reversal of Patent Compensation Board's Decision on Anderson Case - Docket No. 27

The General Counsel reported the court's reversal. The case will now be taken up again by the Patent Compensation Board.

PRESENT

- Dr. Seaborg
- Dr. Wilson
- Dr. Haworth
- Mr. Ramey
- Mr. Palfrey
- Mr. Hollingsworth
- Mr. Price*
- Mr. Hennessey
- Mr. Henderson
- Dr. Western*
- Dr. Tompkins*
- Mr. Brown*
- Mr. McCool

*Partial attendance

DISTRIBUTION

- Commissioners
- General Manager
- General Counsel
- Secretary

W. B. McCool
Secretary

Admiral Rickover called at 4:20 p.m. today to give me a brief report on his meeting with the President today. He said the meeting lasted 45 minutes with no one else present. Rick said he pointed out to the President the vast difficulties of multi-national manning of a submarine. He also pointed out the complexity of the matter and stated that nothing as complex as this can work. Furthermore, he told the President that many people were quoting him as saying the President wants this and the President wants that. I asked how the President reacted, and Rick said he didn't know--he would hesitate to say. The President, however, did indicate that he might make up his mind in a hurry as to whether it will be submarine or surface. Rick said he understands he is supposed to brief the Commission in a little more detail on this and he welcomes the opportunity. I told him I will check with the Commissioners for an appropriate time and if possible call him to give him the time before he leaves for Pittsburgh this afternoon.

I talked to Bundy at 4:25 p.m. and told him I wanted to talk with him before I return Rickover's call since I am sure Rickover wants to talk about his meeting with the President. Bundy said Rickover and the President discussed whether submarines are a good way of doing the multilateral force. Rickover said he didn't think so and the President reserved judgment. I told Bundy we are planning to talk to Rickover in our office on Wednesday to get more of his views and to try to inculcate another point of view. Bundy asked my views regarding security. I said I tend to be much less worried than Rickover. Bundy said he thinks the President wants to do the multilateral force, but is sure he didn't tell Rickover he must do it under water. Bundy said he will be interested in hearing about our talk with Rickover.

Tuesday, February 12, 1963 - D.C.

I hosted a luncheon at the Metropolitan Club for Dr. Gunnar Randers (Managing Director, Institute for Atomenergi, Norway). Others attending included Arne Kapsto (Counselor Norwegian Embassy), John Trevithick (Office of International Affairs, Department of State), the other Commissioners and staff.

The Commission heard briefings by the staff on the NTS labor situation, SNAP and ROVER.

I sent my biweekly report (copy attached) to President Kennedy today.

Lee Haworth is seriously considering the offer he received to be the Director of the National Science Foundation and Bob Wilson told me he will retire and leave the Commission on July 1st. This will present two very difficult replacement problems.

Wednesday, February 13, 1963 - D.C.

At 9:45 a.m. I presided over Information Meeting 245 (notes attached).

At 11 a.m. Commissioner Ramey and I met with Wally Zinn of Combustion Engineering who said they need business to stay alive. They would like a contract or work in the fast reactor field, e.g., in connection with AEC use of the PKDC. They would also like support for fuel element work on superheat reactors.

I had lunch with Vic Schmidt, Chris Henderson and Arnie Fritsch at the University Club.

February 12, 1963

UNCL. BY DOE
NOV 86PERSONAL AND CONFIDENTIAL

Dear Mr. President:

I am pleased to submit my bi-weekly report to you on significant developments in the atomic energy program.

1. US-USSR Atomic Energy Exchanges (Unclassified)

On October 23, 1962, I reported on the status of the US-USSR Exchange Program and mentioned that we had been provided with a protocol by the USSR. This protocol, with relatively minor modifications, was returned to Moscow.

Staff representatives of the AEC will be in Moscow February 16 through February 20 and will participate with Department of State representatives and Soviet officials in discussing ways of implementing the atomic energy phase of the 1963 US-USSR Exchange Program. Exchanges in the field of civilian power reactors and waste disposal have been pending with the Soviet Union for some time, but the Soviets have not given their final assent to these Exchanges.

2. Indian Tarapur Power Reactor (Unclassified)

My last report on the Indian Tarapur atomic power project was part of my report to you of June 12 of last year. In our discussions with the Indians, we have made it clear that the United States will not be able to distribute special nuclear materials except under safeguards arrangements consistent with those presently incorporated in our bilateral agreements and envisioned by the statutes of the International Atomic Energy Agency. During these discussions we have considered specifically what

safeguards procedures would be applicable to a specific project such as the Tarapur power station. To date India has been unwilling to accept IAEA safeguards for the Tarapur reactor.

Ambassador H. D. Smyth, U.S. representative to the IAEA, accompanied by staff representatives of AEC and the Department of State, met in Geneva yesterday and today with Dr. Homi J. Bhabha, Chairman of the Indian AEC, to discuss safeguards and the role which the IAEA should play in their application.

3. Reduction in Force at Savannah River Plant (Aiken, S.C.)
(Unclassified)

In line with future funding planning for the Savannah River plant and laboratory, a gradual reduction in the number of employees will be made during the next few months totaling about 75 to 100 employees out of a total work force of about 6,730. The DuPont Company which operates this facility for the government intends to reassign as many of these employees as possible.

To forestall rumors already prevalent in the plant area of large reductions of personnel, the DuPont Company is distributing an announcement locally at noon tomorrow, February 13. The Joint Committee and appropriate South Carolina Congressional delegation are being given advance notice.

4. Rescheduling of Rover Test Program (Unclassified)

You may recall in your press conference the week of December 10, 1962, you were asked a question concerning the status of the nuclear rocket program, Project Rover. Your answer was based upon a reactor test schedule which contemplated certain testing between that time and the middle of this year.

Examination of the results of the KIWI B4-A reactor test, conducted on November 30, 1962, revealed the presence of mechanical vibrations within the core. A program is underway to determine the source and mechanism of these vibrations and to arrive at necessary design modifications. Therefore, an extensive program of component, sub-assembly and cold reactor testing will be conducted before the next power test. While a firm schedule for further power testing has not yet been established, it now appears that such testing will not take place until late this year at the earliest.

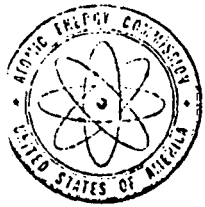
5. Agreements for Transfer of Regulatory Functions
(Unclassified)

You will recall that I have reported from time to time that the AEC has executed agreements for transfer of certain of the AEC's regulatory authority regarding radioactive materials within the various states of the United States. I now have a communication from Governor Endicott Peabody in which he indicates that the Commonwealth of Massachusetts is interested in the possibility of obtaining enabling legislation for such an agreement. I will continue to keep you informed of the progress of this program.

Respectfully submitted,

Glenn T. Seaborg

The President
The White House



UNITED STATES
ATOMIC ENERGY COMMISSION

WASHINGTON 25, D.C.

UNCL. BY DOE
NOV 86

COPY NO. 25

February 13, 1963

INFORMATION MEETING 245

9:45 a.m., Wednesday, February 13, 1963 - Chairman's Conference Room, D.C.

1. NTS Community

In response to the Chairman's query, Mr. Ink said a staff paper is in current review. The Commissioners suggested an analysis of the unsolicited proposals and suggested Mr. Ink discuss with the General Manager the need for Mr. Ink to give this matter special attention. (Ink)

2. Commissioners' Meeting with NFS and Utilities Representatives 11:00 a.m. Friday, February 15

The Chairman requested preparation of notes for his use at the meeting. (Henderson)

3. Status of the Maritime Program

In response to the Chairman's query, Mr. Ink said this matter had not yet been discussed with the Bureau of the Budget.

4. Status of Fiscal 1964 Authorization Bill

Mr. Hennessey reported the question of constitutionality of waiver provisions is still under study in the Department of Justice. Mr. Ink added that the legislative review provision is still under study in the Bureau of the Budget. Mr. Ink said that he had discussed with Mr. Conway, Joint Committee staff, the question of timing on the Bill and that there is no problem.

5. 202 Hearings Testimony

Mr. Ink reported final versions will be circulated to the Commissioners tomorrow for their review and said he hoped copies of Dr. Weisner's testimony will also be available for information. The Chairman requested the preparation of a statement on the Energy Resources study for his use in the Hearings and the Commissioners requested circulation of the Appendices to the Civilian Nuclear Power report and said they would discuss the latter at the Information Meeting on Friday, February 15. (Ink)

6. Query re Tatum Salt Dome

The Chairman noted receipt of additional queries on this matter and suggested Mr. Ramey review the Commissions action re condemnation. He also requested preparation of early responsive letters. (Henderson)

✓ 7. Proposed Letter to Mr. Kermit Gordon, Bureau of the Budget, re Low Energy Nuclear Physics Program (circulation 2/25)

The Commissioners requested circulation of a revised draft for their review. (Fritsch)

8. AEC Comments on Circular A-21 (Cost Principles)

The Chairman said he would respond to the Bureau's request. (Henderson)

Dr. Haworth entered the meeting.

9. General Manager's February 4 Memorandum to Commissioners re Program Direction and Administration Costs--Fiscal 1963

Mr. Ink discussed briefly the problems resulting from the cut of \$750,000 in Program 18 funds for fiscal 63, and the steps it had been necessary to take as a result of that cut. Various means to reduce overtime costs will be considered within a revised funding level and Mr. Ink was asked to consider the matter of car storage. (Ink/Secretary)

10. Status of Dr. Haworth's Study

11. Study of Restricted Data Category

Mr. Palfrey said his draft had gone to the staff for review and Mr. Ramey said he would provide staff comments on the draft. (Ink)

12. Rumors re Explosion of Nuclear Device by the Communist Chinese

13. Southwest Atomic Energy Associates

Mr. Ink said the Southwest Atomic Energy Associates wished to proceed with the plant at the Arkansas site. The matter is in review by the staff.

14. Matters of Particular Interest to Joint Committee Members for Discussion in the 202 Hearings

Mr. Ink said Mr. John Conway, Committee Staff Director, had informed him that the Committee members were interested in:

- a. Project for use of large reactors in desalination of water.

- b. Breeder reactor program effects on the uranium mining industry.
- c. Backup material to the Civilian Nuclear Power report.
- d. Administration reaction to the AEC Civilian Nuclear Power report.

PRESENT

Dr. Seaborg Mr. Hennessey
Dr. Wilson Mr. Henderson
Dr. Haworth* Mr. Ink
Mr. Ramey Mr. McCool
Mr. Palfrey

*Partial attendance

DISTRIBUTION

Commissioners
General Manager
General Counsel
Secretary

W. B. McCool
Secretary

The Commission met with Admiral Rickover to hear about his meeting with the President on Monday. He said he told the President that it will be best to use surface ships, rather than submarines, to implement the Nassau Polaris agreement. He said the President acted on his advice and decided to use surface ships.

At 4:55 p.m. McNamara called. He said he understands that DOD and AEC have worked out a reasonably satisfactory time schedule relating to the calculation of the 1972 production requirements. He said Jerry Johnson told him that DOD would get its inputs to the AEC at a point which will allow for completion of the study by the extended deadline of September 1st. McNamara said that AEC will probably want to send a confirming note to the President and asked if DOD need do anything in this regard. I replied I didn't think it was necessary since the President's February 2nd letter was addressed to the AEC, with only a copy sent to DOD.

At 5 p.m. I met with Dr. N. Kronberger (Deputy Managing Director, Reactor Group, U.K.), R. C. Orford (Head, Commercical & Overseas Relations, U.K.) and Joseph Stephenson (AEA Representative British Embassy) to discuss their desire to renew the agreement to exchange information on fast reactors. We also explored the possibility of U.S.-ENEA cooperation in view of U.K. Common Market and Euratom difficulties and the possibility of a U.S.-U.K.-Euratom Agreement for Cooperation.

Helen and I attended an International Neighbors Club dinner at the Danish Embassy where Victor Borge entertained. He was most amusing.

Thursday, February 14, 1963 - Germantown

At 11:30 a.m. Commissioner Haworth and I met with John Foster (Director, LRL, Livermore) General Luedecke, Spof English and others to discuss the possibility of Livermore's starting an ecological study of fallout effects. We told Foster that we want them to undertake this program, possibly under the direction of John Gofman.

At 11:45 a.m. Rickover called to say he talked with the Secretary of the Navy about his continuing in the job. He said the Secretary definitely wants him to stay on and is agreeable to his doing so as a civilian. He suggested that the Secretary call me, and then afterward write a letter to the AEC, to the President and to the JCAE. The initiative is with the Navy at the moment, and if there is any "footdragging," Rickover thinks a letter from me to the President will help.

I had lunch with McDaniel, Van Dyken and Fritsch to discuss the February 26th Berkeley meeting to discuss the progress of the Heavy Isotope Production Program.

Kaysen called to say that the President wants to have a meeting on Saturday, February 16th at 10 a.m. to continue discussions on nuclear testing and test ban negotiations. He thinks this will wrap up the numbers of on-site inspections. He said that Fisher has just circulated a document and there is one to come later which will look at all the numbers. McNamara feels strongly there should be a complete review of the numbers before the meeting on Saturday. With this in mind, a meeting is being called for Friday, February 15th, from 3 p.m. to 5 p.m., either in Foster's office or Rusk's office. Carl will call later to let me know where.

At 2:40 p.m. I presided over Commission Meeting 1912 (action summary attached). We discussed ways of cutting U-235 production in response to a Presidential directive; the problem is one of less ore procurement versus a power cut. We decided to try to keep three plants (ORNL, Portsmouth and Paducah) going at a reduced level. We will prepare a case study for BOB.

Ambassador Livingston Merchant (chief negotiator for the Multi Lateral Force Nassau Agreement) called at 6:15 p.m. to say he would like Commissioner Palfrey to

UNITED STATES GOVERNMENT

Memorandum

UNCL. BY DOR
NOV 86

TO : A. R. Luedcke, General Manager

DATE: February 15, 1963

FROM : W. B. McCool, Secretary

Approved A. R. Luedcke

A. R. Luedcke

Date 2/15/63

SUBJECT: ACTION SUMMARY OF MEETING 1912, THURSDAY, FEBRUARY 14, 1963, 2:40 P.M.
ROOM A-410, GERMANTOWN, MARYLAND

SECY:JCH

Commission Business

1. Minutes of Meetings 1892, 1893, 1894, 1895, 1896, 1898 and 1903

Approved, as revised, through Meeting 1896. Minutes of Meetings 1898 and 1903 are approved, as revised, subject to Commissioner Haworth's comments.

2. AEC 352/41 - Sale of Components and Material to the U.K.

Approved as revised. (Betts)

The Commission requested the letter to the President be revised. (Betts)

3. AEC 1130 - Test Planning

Approved as revised. (Betts)

The Commission requested the draft letters to the President and Secretary Rusk be revised. (Betts)

The Commission approved the letter to Deputy Secretary Gilpatrick re aircraft requirements with an additional paragraph on sampling aircraft. (Betts)

4. AEC 530/130 - Production Through 1972

Discussed.

The Commission requested preparation of a case study at the 3700 mw level including development of a two and three site operation. (Baranowski)

5. AEC 604/73 - Response to Draft Statement of the Federal
Radiation Council "Council Policy Regarding Iodine in Fallout"

Discussed.

The Commission requested the letter to the FRC be revised to clearly reflect: (a) AEC's understanding of the proposal made by Dr. Wiesner; and (b) AEC's position on the need for a mechanism for providing appropriate advice on the hazards of fallout.
(Western/Woodruff)

Other Business

1. Appendices to the Civilian Nuclear Power Report

A. The staff is to edit the Appendices to the Report for Commission review ; and

B. No decision was made as to transmittal of the GAC subcommittee report to the JCAE.

(Ink/Pittman/Bartels)

2. Commissioners' Meeting with NFS

The Commission noted Mr. Hollingsworth's report of discussions with Mr. Runion. The Commissioners agreed it would be desirable to mention the Commission's responsibilities under Section 105 and to consider a report to the Department of Justice. (Quinn/Hennessey)

3. Response to Query by Committee of the American Bar Association

The Commission reaffirmed its position re non-application of the Convention on Liability of Operators of Nuclear Ships to nuclear naval vessels. (Hennessey/Wells)

cc:
Commissioners

accompany the State Department negotiating team for about a month on their way to Europe. I said this is all right with me, provided Palfrey feels he can be away for that length of time.

Friday, February 15, 1963 - D.C.

At 11 a.m. the Commission met with Lou Roddis (president Atomic Industrial Forum) and the following representatives of Nuclear Fuel Services and Utilities to explore the remaining points in the NFS undertaking: G. R. Corey (Executive Vice President, Commonwealth Edison), Andrew Wofford (Connecticut Yankee), G. I. Milne (Consolidated Edison), L. J. Weidner (Los Angeles Power & Light), B. Ewald (Executive Vice President, Northern States Power), J. C. Whelchel (Vice President, PG&E), R. W. Hartwell (PRDC), R. W. Sturges (Southern California Edison), Roger Coe and D. G. Allen (Yankee Atomic), W. E. McGuirk (President, Davison Chemical), T. C. Runion (President, NFS) and R. B. Snapp (American Machinery & Foundry).

I pointed out the difficulties with NFS insisting on the utilities binding themselves to contracts to 1980. This was settled by the utilities voluntarily agreeing with the stipulation that if prices, especially for new utilities or new fuels, are unreasonable, the AEC will accept the fuels for processing. The meeting seemed to go well and the project seems to be on the way to final agreement at last.

At 1 p.m. I presided over Information Meeting 246 (notes attached). I sent a letter to McNamara (copy attached) saying that the AEC can dig up an additional \$2 million and hopes that DOD can find an additional \$4 million to carry on the PLUTO work in FY 1964. We approved a letter (copy attached) to Congressman Albert Thomas with regard to a cyclotron for Texas A & M.

From 3 p.m. to 5 p.m. I attended a meeting on the U.S. test ban position in McNamara's office. Others present were: McNamara, Wiesner, Keeny, Ball, Kaysen, Brown, Fisher, Long, Northrup, Scoville, Haworth, Nitze, Romney, and Yarmolinsky. We continued to hammer out agreement on the number of unidentified USSR seismic events per year, the number of inspections and the type of inspections needed. This is all preparatory to a final meeting with the President which Haworth will attend on Monday.

I received a memorandum from President Kennedy (copy attached) addressed to Interior, Commerce, AEC, CEA, FPC, BOB, NSF, OST and OEP which directs that a comprehensive study be undertaken of the development and utilization of our total energy resources to aid in determining the most effective allocation of our research and development resources. An interim report is due on September 1, 1963. We had hoped that issuance of this could have been postponed until after the 202 hearings next week.

Saturday, February 16, 1963 - D.C.

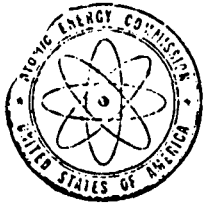
I worked in the office until 1 p.m. and then read AEC papers and journals at home.

Sunday, February 17, 1963 - Washington - Chicago

I worked on AEC papers at home.

Accompanied by Commissioner Wilson and Arnie Fritsch, I flew to Chicago on American Airlines flight 355 from D. C. National Airport. We left at 6:30 p.m. and arrived at 7:50 p.m.

I stayed overnight at the Center for Continuing Education (1307 E 60th Street).



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

ENCL. BY DOE
NOV 86

COPY NO. 15

February 15, 1963

INFORMATION MEETING 246

1:00 p.m., Friday, February 15, 1963 - Room 1113-B, D. C. Office

1. Meeting with the President Monday Morning, February 18

The Chairman said Dr. Haworth would attend in his absence.

2. Commissioner Palfrey's Trip to Europe with State Department Officials

3. Commissioners' Meeting This Morning with State Department Representatives, Admiral Rickover and Others

Mr. Palfrey reported briefly on the meeting.

4. Secretary Gilpatrick's Letter to the Joint Chiefs of Staff dated February 9, 1963 re Weapons Study

✓ 5. Letter to Mr. Bundy re Due Date for Plutonium and Tritium Study *(copy attached) on 2/21*

The Chairman said Secretary McNamara had discussed with him the extension of the due date and the Chairman requested preparation of a brief letter to Mr. Bundy confirming the date of September 1. (Henderson/Betts)

6. Secretary McNamara's Letter dated February 13 re Transmittal of Information to Canada

The Chairman requested early consideration. (Betts)

7. Letter to Secretary of Defense re PLUTO Program

The Commissioners discussed the proposed letter briefly and the Chairman said he would sign it today. (Henderson)

✓ 8. Letter to Congressman Albert Thomas re Cyclotron for Texas A and M *(attached)*

The Chairman said he would sign the letter today. (Henderson)

9. Commissioners' Meeting with Norris Bradbury to Discuss NERVA Program

The Commissioners agreed an early meeting would be desirable.

10. Letter from National Coal Association dated February 12 re Visit to an Underground Installation and the World's Largest Strip Mining Shovel both Located in Kentucky

The Commissioners suggested Dr. Haworth and Mr. Ramey consider attending with appropriate staff.

11. 202 Hearings Testimony

The General Manager noted the testimony will go forward today.

12. Joint Committee Request for Information on Project Recommendations

The General Manager said Senator Pastore has requested the Committee be provided with a list of recommended projects and the Commissioners had no objection to the transmittal. (GM)

13. WPPSS-AEC Contract

The Commissioners agreed the General Manager should proceed with the contract in a routine manner.

14. Dr. Wilson's Report on Meeting in New York with Atomic Industrial Forum to Discuss Toll Processing

15. Proposed Radiation Safety and Health Standards (AEC 604/72)

Mr. Ramey discussed briefly his meeting this week with labor representatives and said staff is reviewing their draft looking to further discussions with them tomorrow. The Commissioners suggested Mr. Ramey review this matter with the General Manager.

16. Agenda for the Week of February 18

Approved, as revised. (Secy)

PRESENT

Dr. Seaborg	Gen. Luedecke
Dr. Wilson	Mr. Hollingsworth
Mr. Ramey	Mr. Henderson
Mr. Palfrey	Mr. Hennessey
	Mr. McCool

DISTRIBUTION

Commissioners
General Manager
General Counsel
Secretary

W. B. McCool
Secretary

UNITED STATES
ATOMIC ENERGY COMMISSION

WASHINGTON 25, D. C.

February 15, 1963

OFFICE OF THE CHAIRMAN

UNCL. BY DOE
NOV 86

Dear Bob:

Thank you for your letter of January 8, 1963 in regard to the PLUTO Program in which you expressed a need for the Atomic Energy Commission to conduct continuing studies in support of service investigations and to complete the Tory IIC test program. Subsequent to your letter, we initiated several actions to relieve the PLUTO funding deficiencies.

On January 9, 1963 we requested guidance from the Bureau of the Budget as to the means by which the Commission could obtain an additional \$4 million to carry out the continuing studies in support of the service investigations. In his letter of January 25th, a copy of which is enclosed, Mr. Gordon stated that any essential requirements for this purpose should be funded by reprogramming within the total amounts currently budgeted for Fiscal Year 1964.

Subsequent to my letter to Mr. Gordon, it was determined that a further \$2 million would be necessary to complete the Tory IIC task, making a total of an additional \$6 million actually required in Fiscal Year 1964 to complete the Tory IIC task and the continuing studies. The Commission has been able to reprogram \$2 million of operating funds to PLUTO in Fiscal Year 1964. This was done at the expense of other high priority programs and I am extremely pessimistic that we will be able to reprogram further funds.

Recalling our conversations on this subject and subsequent discussions with Dr. Harold Brown, I am hopeful that the Department of Defense could provide the remaining funds necessary for this program.

Sincerely,

131

Glenn T. Seaborg

Honorable Robert S. McNamara
Secretary of Defense

Enclosure

DETERMINED TO BE UNCLASSIFIED
AUTHORITY, DOE, OIG
BY L. M. Schmitt
DATE 5/14/85

159

T
(Classified)
DC FILE Rudder
Squero
3/74

February 15, 1963

Dear Albert:

This is in response to your referral of January 29, 1963, of a letter to you from Congressman Olin E. Teague, of Texas, relative to a proposal made by Mr. Earl Rudder, President of the A&M College of Texas, for assistance in construction of a variable energy cyclotron accelerator and a related research program.

The problems of expanding the base for research in low energy physics and chemistry are quite complex. For many years, it has been clear to me, as a scientist whose principal interest lies in this field, that we as a nation are not doing as much as we could be doing to foster this important field. I think that the United States must build up its low energy physics and chemistry programs in the next few years if we are to continue to lead the world. We should expand the support to those organizations whose staffs have proved their ability to achieve significant scientific progress. In addition, we should develop new centers of excellence where such development can be based solidly on the ability of the new center to attract and hold the high caliber persons required for these sophisticated and challenging studies.

An essential tool for a vigorous research program in low energy nuclear physics and chemistry is a low energy particle accelerator. The President's FY 1964 budget provides \$3 million for the procurement of one such accelerator for installation in a building to be provided by some university. We have several outstanding candidates for this one accelerator and we will have to decide this summer or fall which institution should receive this machine if Congress should appropriate the funds.

I personally want to see such a machine provided to Texas A&M for its use in developing a new center of excellence in low energy physics and chemistry research. I have been assured by President Rudder that he will do everything possible to expand the scientific staff of the College. I am hopeful that he will be able to advise us soon of his success in employing the necessary staff so essential to the proper use of this facility. We then can consider the Texas A&M proposal on a more comparable basis with those from other fine institutions.

OFFICE ▶					
SURNAME ▶					
DATE ▶					

Indeed, the difficulty which President Eudder is having in finding capable and qualified staff for the new center is concrete evidence of the real need for more competent people in this area of research.

Sincerely yours,

(Signed) Glenn T. Seaborg

Chairman

Honorable Albert Thomas
House of Representatives

Retyped in Chairman's Office CLH/hg

OFFICE ▶					
SURNAME ▶					
DATE ▶					

OLIN E. TEAGUE
11TH DISTRICT OF TEXAS

WASHINGTON ADDRESS:
SUITE 101, HOUSE OFFICE BLDG.

COUNTIES:
BRAZOS ELLIS
FREESTONE HILL
HOOD JOHNSON
LEON LIMESTONE
NAVARRO ROBERTSON
SOMERVELL

COMMITTEES:
VETERANS' AFFAIRS
SCIENCE AND ASTRONAUTICS

Congress of the United States
House of Representatives
Washington, D. C.
26 January 1963

AEC

1538 2/1/63

RECEIVED

JAN 29 1963

COMMUNICATIONS SECTION

Honorable Albert Thomas, Chairman
SubCommittee on Independent Offices Appropriations
House of Representatives
Washington, D.C.

UNCL. BY DOE
NOV 86

Dear Albert:


You will probably recall in August of 1962, Mr. Earl Rudder, President of the A&M College of Texas was in Washington and presented to the Atomic Energy Commission a proposal for assistance with the construction of a variable energy cyclotron accelerator and a related research program. A copy of their proposal was given to you at that time.

The Atomic Energy Commission's request for research funds for fiscal year 1964 was reduced drastically by the Bureau of Budget, and I am advised that it will not be possible for them to consider this proposal during the coming fiscal year.

The A&M College of Texas has a valid offer of financial assistance in this project from the Robert Welch Foundation in Houston, contingent upon the participation of the Atomic Energy Commission, and that such cyclotron be completed, equipped, staffed and in operation by January 1, 1967. To meet this deadline, it is imperative that work be initiated not later than December 1, 1963.

Any consideration your sub-committee can give to increasing the AEC appropriations in this regard will be appreciated.

Sincerely,


Olin E. Teague
Congressman

OT FILE X

THE WHITE HOUSE
WASHINGTON

February 15, 1963

MEMORANDUM FOR

- The Secretary of the Interior
- The Secretary of Commerce
- Chairman, Atomic Energy Commission
- Chairman, Council of Economic Advisers
- Chairman, Federal Power Commission
- Director, Bureau of the Budget
- Director, National Science Foundation
- Director, Office of Science and Technology
- Director, Office of Emergency Planning

ENCL. BY DOE
NOV 86

SUBJECT: Interdepartmental Energy Study

1. Following receipt of the Atomic Energy Commission report, dated November 20, 1962, on the subject of Civilian Nuclear Power, I asked the Director of the Bureau of the Budget for his recommendations as to the most effective way to deal with the question, which the Commission considered inappropriate to cover in its report, of the possible effects of major research efforts on the economics of non-nuclear energy sources, or on improved transmission methods for either nuclear or non-nuclear produced energy. In addition, I requested recommendations for dealing with the broader economic questions which are implicit in the Commission's report, such as the size and characteristics of future demands for energy, possible price trends for fuels, and available alternative technical approaches to the problem of supplying the long-term energy requirements of the nation.

2. The significance of energy resources to our society has again been underscored by recent studies of the National Academy of Sciences and the Federal Council on Science and Technology, and by the Report of the National Fuels and Energy Study Group to the Senate Interior and Insular Affairs Committee. These studies also stress the need for balanced, comprehensive development of energy sources, improved generation

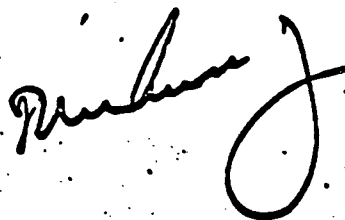
and transmission facilities, and greater efficiency in the utilization of energy. The report by the Atomic Energy Commission focused attention on the role of civilian nuclear power in our total supply of energy over the future decades. Each of these reports, in whole or in part, discusses the impact of research and development on the cost and availability of energy to the nation. A study of electric power requirements has also been undertaken by the Federal Power Commission.

3. The amount and allocation of Federal research and development in the energy field will affect the efficiency of various components of our energy system, and, consequently, the rate and pattern of our national economic growth.

4. Acting upon the recommendations of the Director of the Bureau of the Budget, I direct that a comprehensive study be undertaken of the development and utilization of our total energy resources to aid in determining the most effective allocation of our research and development resources. I would expect the Department of the Interior and the Federal Power Commission to provide significant assistance in the conduct of the study.

5. The study is to be undertaken under the direction of a committee comprised of the above listed officers, with the Director of the Office of Science and Technology as Chairman and the Chairman of the Council of Economic Advisers as Vice Chairman. Where appropriate, departments and agencies not represented on the committee should participate in the development of the study and be consulted regarding it.

6. An interim report should be submitted by September 1, 1963.

A handwritten signature in black ink, appearing to read "Richard J.", is located in the lower right quadrant of the page.

I took a walk along 63rd Street with Fred Albaugh and Arnie Fritsch.

Monday, February 18, 1963 - Chicago - Washington

At 10 a.m. I addressed the Symposium on Plutonium Chemistry at the Center for Continuing Education, University of Chicago. The symposium commemorated the 20th anniversary of the first weighing of plutonium. Thorfin R. Hogness introduced me for my extemporaneous talk, "Plutonium - Its Beginnings." There were TV and press interviews as well as photographic coverage before and after my talk. Burris Cunningham and William H. Zachariasen talked in the morning, James L. Cate, at lunch, and Paul Fields, Kurt Kraus and Larned Asprey talked in the afternoon.

In the evening before dinner I presented a plaque commemorating the first weighing of plutonium on September 10, 1942, to Norman Nachtrieb (Chairman, Department of Chemistry, University of Chicago), in Room 405, Jones Laboratory. After dinner, Alvin Weinberg spoke on, "Scale, Nuclear Economics and Salt Water."

About 125 people (list attached) attended the symposium which was arranged by Warren Johnson. I met many old friends; it was a very enjoyable day.

Fritsch and I flew back to Washington on American Airlines flight 692. I left at 10:15 p.m. and arrived at 1:13 a.m., February 19th.

Tuesday, February 19, 1963 - D. C.

I attended a luncheon where I spoke briefly to the Chamber of Commerce Atomic Energy Committee at the Carlton Hotel. The other Commissioners and several staff also attended.

From 2:30 p.m. to 4 p.m. I attended a meeting of the Space Council in the Executive Office Building. Others attending were: Vice President Johnson, Gilpatric, McGhee, Webb, Halaby, Alan Boyd, Clarence D. Martin (Commerce), Wiesner, Staats, Welsh, Hunter, Hale, Fritsch and others. Halaby spoke on supersonic aircraft studies which will cost \$25 to \$30 million each, or \$40 million according to McNamara. This program requires a report by May 1st, recommendations by May 15th, and a Presidential proposal to Congress by June 1st. The question remains on how best to do this whether by communications satellite via corporation (NASA or FAA), or build the way the Savannah was built.

From 5 p.m. to 6 p.m. I attended a meeting of the Regulatory Agency Heads and Attorney General Robert Kennedy in Kennedy's office. Najeeb Halaby, Alan Boyd, Nicholas Katzenbach, Joe Swidler, Paul Dixon and Kermit Gordon attended. We mainly discussed monopoly problems although I discussed the AEC patent compensation problem, e.g., the Statute of Limitations and the recent ruling of the District Court of Appeals in the Herb Anderson case.

I attended the Blue and Gold, Father and Son, Cub Scout Dinner at All Saints Episcopal Church (at Chevy Chase Circle) with Eric.

Wednesday, February 20, 1963 - D.C.

From 10 a.m. until 12 noon I testified at the 202 Hearings. Everything seemed to go well. Haworth and Wilson appeared with me. In the afternoon Wiesner and Swidler testified. They supported the AEC Civilian Nuclear Power Report fairly well.

At 4 p.m. I attended an Executive Session of the JCAE where Ambassador Livingston Merchant, Gerard Smith (Consultant to the State Department) and Rear Admiral John

Ceremony Commemorating 20th Anniversary of the First Weighing of Plutonium
Argonne National Laboratory, Argonne, Illinois
February 18, 1963



L to R: A. M. Weinberg, Seaborg, and N. H. Nachtrieb



L to R: Thorfin Hogness, W. H. Zachariasen, Seaborg and Burris B. Cunningham

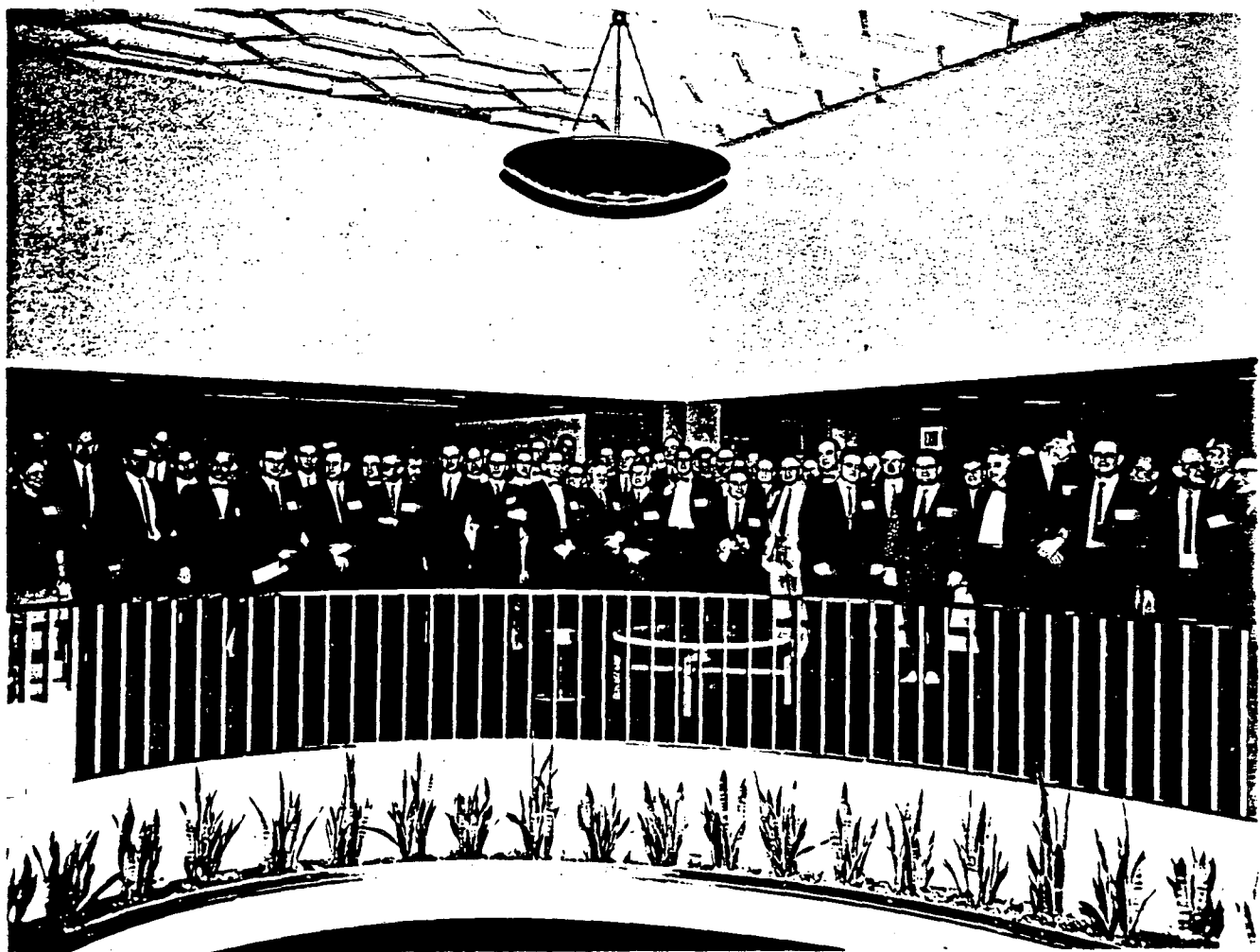
Ceremony Commemorating 20th Anniversary of the First Weighing of Plutonium
Argonne National Laboratory, Argonne, Illinois
February 18, 1963



L to R: Warren Johnson, Burris B. Cunningham, Seaborg, E. M. McMillan
and G. W. Beadle



L to R: E. P. Steinberg (ANL), J. J. Katz (ANL), S. Fried (UCRL), J. C. Hindman
(ANL), F. S. Tomkins (ANL), M. S. Freedman (ANL), J. R. Huizenga (ANL) and,
with his back to the camera, J. A. Marinsky (University of Buffalo)



20th Anniversary of First Weighing of Plutonium, Continuing Education Center, Argonne National Laboratory, Chicago, Illinois, February 18, 1963.

L to R: Hoylande D. Young (Failey), ANL (retired); M. D. Peterson, ANL (rear); J. S. Dixon, U. of California; R. A. James, UCLA; H. H. Hopkins, Hanford (rear); L. B. Magnusson, ANL; L. E. Glendenin, ANL; R. Sjoblom, ANL (rear); G. Leader, Thiokol Chemical Co.; T. J. Neubert, IIT (rear); L. T. Lloyd, ANL; J. C. Hindman, ANL; J. R. Huizenga, ANL (rear); K. J. Jensen, ANL; B. Cunningham, U. of California; S. Fried, UCRL; L. R. Kelman, ANL; E. G. Bohlman, ORNL; (unidentified); L. B. Arnold, Jr.; R. W. Bank, ANL; J. E. Draley, ANL (rear); M. Burton, U. of Notre Dame; J. E. Willard, U. of Wisconsin (rear); J. J. Katz, ANL; F. H. Spedding, Ames; J. R. Gilbreath, ANL (rear); O. C. Simpson, ANL; R. E. Heath, N. Michigan College; W. J. Blaedel, U. of Wisconsin (rear); L. I. Katzin, ANL; D. R. Miller, AEC, Washington; W. H. Zachariasen, U. of Chicago; A. Ghiorso, UCRL (rear); E. P. Steinberg, ANL; I. Sheft, ANL; M. Cefola, Fordham U. (front); (unidentified) (rear); W. J. Knox, U. of California (rear); F. S. Tomkins, ANL; L. Foster, Watertown Arsenal; A. H. Jaffey, ANL; S. G. English, AEC, Washington; R. E. Telford, ANL; J. Malm, ANL (rear); W. M. Manning, ANL; M. H. Studier, ANL; H. H. Hyman, ANL; R. J. Moon, U. of Chicago; R. G. Larson, Valparaiso U.; Seaborg, AEC, Washington; P. Fields, ANL; F. Hagemann, ANL; W. C. Johnson, U of Chicago; J. W. Britain, Mobay Chemical Company; A. M. Weinberg, ORNL

ARGONNE NATIONAL LABORATORY
THE UNIVERSITY OF CHICAGO

DELEGATES TO
A SYMPOSIUM ON PLUTONIUM CHEMISTRY
February 18, 1963

B. M. Abraham
Argonne Laboratory

F. W. Albaugh
Hanford Laboratory

S. K. Allison
University of Chicago

L. B. Asprey
Los Alamos Laboratory

R. W. Bane
Argonne Laboratory

C. S. Barrett
University of Chicago

G. W. Beadle
University of Chicago

R. H. Beaton
General Electric

W. J. Blaedel
University of Wisconsin

Bernhard Blumenthal
Argonne Laboratory

E. G. Bohlmann
Oak Ridge Laboratory

C. J. Borkowski
Oak Ridge Laboratory

J. W. Britain
Mobay Chemical Co.

W. G. Brown
University of Chicago

J. G. Burr
Atomics International

Milton Burton
University of Notre Dame

James Cate
University of Chicago

Michael Cefola
Fordham University

H. H. Chiswick
Argonne Laboratory

R. N. Clayton
University of Chicago

A. V. Crewe
Argonne Laboratory

Burriss Cunningham
University of California

J. S. Dixon
University of California

J. E. Draley
Argonne Laboratory

R. B. Duffield
General Dynamics

O. J. Du Temple
American Nuclear Society

R. R. Edwards
Nuclear Science & Engineering Corp.

Robert Elson
University of California

*H. L. Anderson
u. of C.*

*Luther B. Arnold
Dixon Chem. Co.
Durham, N.C.*

*E. C. Bennett
City & Engr News*

*J. T. Bobbitt
Argonne*

*R. T. Dunworth
Argonne*

S. G. English U. S. Atomic Energy Commission	Albert Giorso University of California
J. R. Farmakes Argonne Laboratory	J. R. Gilbreath Argonne Laboratory
H. M. Feder Argonne Laboratory	L. E. Glendenin Argonne Laboratory
Paul Fields Argonne Laboratory	R. C. Guinness Standard Oil (Ind.)
Phillip Fineman Argonne Laboratory	F. T. Hagemann Argonne Laboratory
H. L. Finston Brookhaven Laboratory	Jack Halpern University of Chicago
Jack Fischer Argonne Laboratory	W. B. Harrell University of Chicago
E. B. Fleischer University of Chicago	R. E. Heath Northern Michigan College
Frank Foote Argonne Laboratory	Charter Heslep Atomic Energy Commission
L. S. Foster Watertown Arsenal	Norman Hilberry Argonne Laboratory
James Franck University of Chicago	J. C. Hindman Argonne Laboratory
M. S. Freedman Argonne Laboratory	H. R. Hoekstra Argonne Laboratory
Sherman Fried University of California	T. R. Hogness University of Chicago
Dan Friedlander Fairchild Publications	H. H. Hopkins, Jr. Hanford Laboratory
A. R. Fritsch U. S. Atomic Energy Commission	J. R. Huizenga Argonne Laboratory
H. W. Fulbright University of Rochester	H. H. Hyman Argonne Laboratory
S. R. Gaarder U. S. Atomic Energy Commission	M. G. Inghram University of Chicago

L. O. Jacobson
University of Chicago

A. H. Jaffey
Argonne Laboratory

R. A. James
University of California

K. J. Jensen
Argonne Laboratory

W. C. Johnson
University of Chicago

T. O. Jones
National Science Foundation

Louis Kaplan
Argonne Laboratory

J. J. Katz
Argonne Laboratory

Sidney Katz
Armour Research Foundation

L. I. Katzin
Argonne Laboratory

L. R. Kelman
Argonne Laboratory

W. J. Knox
University of California

K. A. Kraus
Oak Ridge Laboratory

T. F. Krohne
Argonne Laboratory

C. W. Larsen
University of Chicago

R. G. Larson
Valparaiso University

Stephen Lawroski
Argonne Laboratory

G. R. Leader
Thiokol Chemical Corporation

L. T. Lloyd
Argonne Laboratory *L. Magnusson
Argonne*

W. M. Manning
Argonne Laboratory

J. G. Malm
Argonne Laboratory

J. A. Marinsky
University of Buffalo

E. M. McMillan
University of California *Kathar Meyer
u/c*

D. R. Miller
Atomic Energy Commission

John Milsted
Argonne Laboratory

R. J. Moon
University of Chicago

W. V. Morgenstern
University of Chicago

R. S. Mulliken
University of Chicago

F. E. Myers
Argonne Laboratory

N. H. Nachtrieb
University of Chicago

T. A. Nemzek
AEC - Chicago

T. J. Neubert
Illinois Institute of Technology

T. B. Novey
Argonne Laboratory

T. J. O'Donnell
University of Chicago

Newsweek

J. B. Parsons
University of Chicago

~~R. L. Patton~~
~~Cornell University~~

D. F. Peppard
Argonne Laboratory

M. D. Peterson
Argonne Laboratory

H. A. Potratz
Washington University

S. W. Rabideau
Los Alamos Laboratory

J. H. Roberson
Assoc. Midwest Universities

D. P. Rudolph
AEC - Chicago

E. W. Rylander
Argonne Laboratory

Glenn Seaborg
U. S. Atomic Energy Commission

Jacob Sedlet
Argonne Laboratory

Irving Sheft
Argonne Laboratory

A. B. Shuck
Argonne Laboratory

O. C. Simpson
Argonne Laboratory

R. K. Sjoblom
Argonne Laboratory

F. H. Spedding
Iowa State University

E. P. Steinberg
Argonne Laboratory

D. C. Stewart
Argonne Laboratory

H. H. Strain
Argonne Laboratory

M. H. Studier
Argonne Laboratory

Nathan Sugarman
University of Chicago

J. C. Sullivan
Argonne Laboratory

Richard Lewis
Chicago Sun-Times

J. A. Swartout
Oak Ridge Laboratory

T. M. Switz
University of Chicago

R. E. Telford
Argonne National Laboratory

R. J. Thorn
Argonne Laboratory

R. J. Gibbons
Chicago Tribune

F. S. Tomkins
Argonne Laboratory

Anthony Turkevich
University of Chicago

R. C. Vogel
Argonne Laboratory

A. F. Voigt
Iowa State University

M. T. Walling, Jr.
Hanford Laboratory

*JW Stout
UGC*

Alvin Weinberg
Oak Ridge Laboratory

~~L. B. Werner~~
~~Hazleton Nuclear Science Corp.~~

H. A. Wilhelm
Iowa State University

J. E. Willard
University of Wisconsin

J. T. Wilson
University of Chicago

R. E. Wilson
U. S. Atomic Energy Commission

G. H. Winslow
Argonne Laboratory

Lester Winberg
Argonne

H. Young (Failey)
Argonne Laboratory

T. F. Young
University of Chicago

W. H. Zachariasen
University of Chicago

~~E. C. Bennett~~

M. Lee (Office of Assistant Secretary of Defense for International Security) testified to explain the administration position on the forthcoming trip to Paris, Rome, Bonn and Brussels to try to sell the Nassau Agreement. They met with almost unanimous opposition. Palfrey is accompanying the Merchant group on this mission (two to four weeks). We are doing everything we can to help allay the fears of the JCAE.

I signed a letter to President Kennedy (copy attached) requesting a decision soon on readiness to resume atmospheric testing in the Pacific on June 1, 1964.

I also wrote a letter (copy attached) to Secretary Rusk asking him to rush negotiations for freer use of Christmas Island. Attached is Alexis Johnson's response of March 2nd.

Thursday, February 21, 1963 - D.C.

At 10 a.m. I met with Fred Warren (Pickard-Warren-Lowe) who represents the Washington state Tri-City Nuclear Industrial Council. He wants to discuss with me, prior to my March 15th visit to Hanford with Senator Jackson, their desire for more industrial and university participation at Hanford.

The other Commissioners and I attended an AIF luncheon at the Army-Navy Club where Chauncey Starr, Ken Davis, Charlie Weaver and Lyman Fink gave a report on the results of the AIF survey on the AEC Civilian Nuclear Power Report. The results were generally favorable.

At 3:55 p.m. I presided over Commission Meeting 1913 (action summary attached). The Commission decided to negotiate for renewal of General Electric's contract to operate the Pinellas (weapons part) plant. This is a historic step because we will try to negotiate an incentive fee contract.

I sent a letter (copy attached) to Bundy in response to the President's request of February 2nd for a long range production objective for plutonium and tritium.

Friday, February 22, 1963 - HOLIDAY

I spent the day at home reading a huge stack of AEC papers, books, journals, etc.

Saturday, February 23, 1963

I spent the day at home reading AEC papers. I worked to put the finishing touches on my speech, "Education for the Third Revolution," which I will give in Chicago on March 3rd, at the 17th Conference on Higher Education.

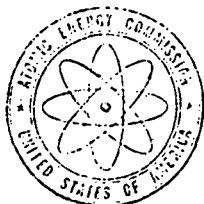
I went for a walk to Sears Roebuck (Wisconsin Avenue) with Pete, Steve and Dianne.

Sunday, February 24, 1963

I worked on Frank Bello's rewrite of Fritsch's and my article on "The Synthetic Elements," for the Scientific American. I also worked on a speech, "Basic Research and our National Security," which I will give at a National Security Seminar in Dayton, Ohio, on April 1st. I worked on Chapters 1 and 2 of the Hyde, Perlman, Seaborg book on "Nuclear Properties of the Heavy Elements" which may be nearing completion.

Monday, February 25, 1963 - D.C.

From 11 a.m. to 11:15 a.m. I met in my office with Secretary of the Navy Fred



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

100-2-100

ENCL. BY DOE
NOV 86

Dear Mr. President:

As you may be aware, the Commission, in conjunction with the Department of Defense, feels that it is time to formalize plans for an atmospheric nuclear test series in 1964, to be conducted in the Pacific area. We recognize, of course, the importance of the current efforts in Geneva to negotiate a nuclear test ban agreement. We also feel, however, that realistically we must anticipate the possibility that the negotiations could become protracted and fail to culminate in an agreement.

The Commissioners and the Secretary of Defense realize, of course, that you have made no decision actually authorizing a new atmospheric test series and that it would be inappropriate to press for such a decision at this time; however, we consider it only prudent that we attain a posture of readiness to test. Such a posture requires early preparation, and, in particular, a specific date against which device development and all related test preparation can be directed.

The Department of Defense estimates that it cannot be ready before July 1, 1964, because of the extensive preparations that must be made in order to support these tests adequately. As we informed your staff by memorandum of December 22, 1962, the Commission could be prepared to conduct a useful atmospheric test series by September of this year. We recognize that for such a series to be most meaningful it would be better to delay its beginning until the late spring or early summer of 1964 when we could carry out a much more comprehensive and effective series and the Department of Defense could also be ready. Accordingly, it appears appropriate to plan for the series to begin with developmental tests on about June 1, so that these tests could be well along by the time the Department of Defense is ready with high altitude effects experiments.

Up to this time, plans and preparations have been subject to limitations such as inadequate allocation of funds and a desire to avoid any public attention being drawn to these activities. It must be emphasized that those limitations, if continued for several months, will make it impossible to prepare efficiently and with maximum economy. The alternative will be a costly and inefficient last-minute crash effort such as was the case for the recently completed DOMINIC operation.

Preparations for an atmospheric nuclear test series in the Pacific in 1964 will require that we resolve the matter of the possible use of Christmas Island for the proposed test series. If a new agreement with the U.K. can be negotiated at an early date so as to allow early construction activity there for base preparations, this would be by far the best location. If those negotiations cannot be concluded at an early date, we could plan on the use of the area in the vicinity of Johnston Island as it was used for the latter part of the DOMINIC test operation. Since this would involve substantial alterations, an early decision is essential.

It will also be necessary that sufficient funds be allocated to support test preparations. For example, AEC FY 1963 and FY 1964 off-continent test budgets provide only for the development of diagnostic aircraft necessary to support an airborne testing capability. Additional funds must be allocated to test activities in the near future in order to finance advanced base preparations and similar long lead time test support activities.

It is requested that you approve June 1, 1964, as a test readiness planning date and authorize the necessary preparations described above in order to meet that date.

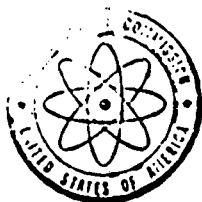
The Department of Defense concurs in these recommendations.

Respectfully yours,

Glenn T. Seaborg

The President
The White House

response started on 3/5/63



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

State
DO FILE

FEB 21 1963

UNCL. BY DOE
NOV 86

Dear Dean:

In my letter of October 24, 1962, I proposed that negotiations with the United Kingdom be opened as soon as possible to protect our option to use Christmas Island as a site for a future atmospheric nuclear test series. I also mentioned that when we have determined precisely what our operations there may be, some amendments to the agreement may be desirable.

Our most recent thinking on the subject of atmospheric testing is outlined in a letter I have sent to the President, advising him of certain actions and preparations required to attain a readiness status for any future atmospheric test series. A copy of this letter is enclosed for your information.

In order to develop firm plans to initiate testing, if directed to do so at some future date, we must have an early understanding with the United Kingdom as to whether use can be made of Christmas Island as a forward base of operations, with any limitations defined as clearly as possible including any requirements for U.K. agreement prior to the actual conduct of tests.

During a recent joint meeting of the Commissioners and the Military Liaison Committee, the Department of Defense expressed a desire that any agreement, relative to future use of Christmas Island, include the possibility of using the island as a base for the launching of missiles and rockets for high altitude nuclear tests, similar to those conducted last year at Johnston Island. The Commission favors the inclusion of such a provision in any future agreement.

A Presidential decision to proceed in accordance with the recommendations of the attached letter will place an urgent requirement on resolution of the question of future use of Christmas Island, not

only as a forward base of operations, but also as a site for the possible conduct of high altitude tests. Please let me know if we can provide any further assistance in proceeding for an understanding with the United Kingdom on this matter.

Sincerely yours,

[Faint signature]
Chairman

The Honorable Dean Rusk
Secretary of State

Enclosure

DEPUTY UNDER SECRETARY OF STATE
WASHINGTON

835 31463

March 2, 1963

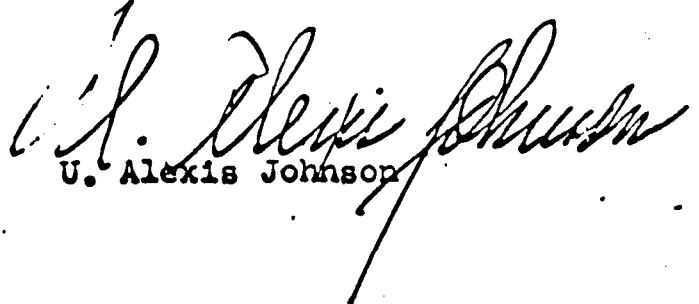
UNCL. BY DOE
NOV 86

Dear Dr. Seaborg:

Thank you for your letter of February 21, 1963 relative to the possible use of Christmas Island in future atmospheric nuclear tests. In this connection, under date of February 18 we forwarded to Mr. Wells of your staff a draft agreement prepared by British authorities covering the continued presence of United States test equipment and personnel on Christmas Island. We are awaiting the comments of your staff.

We assume it would not be desirable to initiate further discussions with the British until the President acts on your letter to him of February 21. I am also providing a copy of this letter to Mr. McGeorge Bundy and to Dr. Johnson of the Department of Defense.

Sincerely,



U. Alexis Johnson

The Honorable
Glenn T. Seaborg, Chairman,
Atomic Energy Commission.

UNITED STATES GOVERNMENT

Memorandum

UNCL. BY DOE
NOV 86

TO : A. R. Luedecke, General Manager

DATE: February 25, 1963

Approved A. R. Luedecke

FROM : W. B. McCool, Secretary 

A. R. Luedecke

Date 2/26/63

SUBJECT: ACTION SUMMARY OF MEETING 1913, THURSDAY, FEBRUARY 21, 1963,
3:55 P.M., ROOM 1113-B, D. C. OFFICE

SECY:JFG

Commission Business

1. AEC 127/19 - Extension of Contract with General Electric Company for Operation of Pinellas Plant

Approved, as revised. (Vinciguerra)

The Commission requested:

- a. the formula for fee increase or decrease be set at 35 percent;
- b. a reduction from 15 percent to 10 percent in the definition of change of scope.

(Vinciguerra)

2. AEC 840/19 - Plutonium Scattering Field Experiments

Approved. (Betts/Woodruff)

3. AEC 937/37 - Possible Cooperation with the French on Weapons Safety and Control Matters

Approved, as revised. (Betts)

The Commission requested preparation of a revised letter to the Secretary of State for review by Commissioner Ramey.

(Betts/Wells)

The JCAE letter is not to be dispatched pending receipt of comments from Department of State. (Betts/Wells)

4. AEC 131/100 - Fee Policy - "Not-for-Profits" and Certain University Contractors

Approved, as revised. (Vinciguerra)

The Commissioners agreed that it is not necessary to inform the JCAE. (Vinciguerra)

5. AEC 63/5 - Extension of Contract with Iowa State University
Approved. (Vinciguerra)
6. AEC 324/18 - Extension of Contract with University of Chicago
for Operation of Argonne Cancer Research Hospital
Approved. (Vinciguerra)
7. Controller's Financial Review, Second Quarter FY 1963
Noted.

Information Meeting Items

1. Approval of Agenda for Week of February 25, 1963
Approved, as revised. (Secretary)
- ✓ 2. Vanadium Corporation's Purchase of Shiprock Mill
The Commission had no objection to your proposal. You said you would inform Congressman Aspinall prior to taking action. (Johnson)
3. Medina Base Public Relations Plan
The Commission had no objection to your proposal.
4. Letter re Net Evaluation Subcommittee Report
The Chairman said he had signed the letter. (Henderson)
- ✓ 5. Civilian Power Report Working Documents
You requested Commission comments by Tuesday. The material may be sent to the BOB for information. (Ink)
- ✓ 6. 202 Hearing Testimony
You requested the Commissioners' comments over the weekend.
- ✓ 7. Waste Disposal Testimony
Commissioner Haworth requested submission of AEC comments.
(Woodruff)

Information Meeting Items (cont'd)

8. Nassau Pact Discussions

The Commissioners discussed briefly Commissioner Palfrey's participation in the European Meetings. Commissioner Ramey and State and Defense representatives will meet with JCAE representatives next week and the JCAE will be informed as to U.S. Team members.
(Secretary)

1. ...
2. ...
3. ...
4. ...
5. ...
6. ...
7. ...
8. ...

CROSS REFERENCE SHEET

Document # 901680

TITLE OF DOCUMENT LETTER OF 2-21 REGARDING THE TIMING
OF AEC'S WORK ON THE 1972 PRODUCTION
OBJECTIVE FOR PLUTONIUM AND TRITIUM
3-5-63 1 PAGE

This document requires further classification review and has been removed from this folder.

Dick Koogle
Name

August 22, 1986
Date

Korth, who wants to get my views on the future of Admiral Rickover. He feels that Rickover should be kept on the job, to which I agreed. He thinks there are three alternatives: 1. Rickover could be offered year-by-year reappointments. 2. Pass a Congressional Bill which would authorize his appointment for a longer period, perhaps five years. He said he finds this unsatisfactory because it means that Congress would be in the position of running the Navy Department's business. I, however, had the impression that he might accept it as a last resort. 3. An appointment could be made by the AEC wherein Rickover could act in a civilian capacity with salary paid by AEC, but still wearing the dual agency hat. He wants me to give this some thought and then make a recommendation we could both make to Secretary McNamara, and after that, to the President.

After the solution of this problem there are two other problems he wants AEC to consider: 1. The main complaint that the Navy has with Rickover is that he has taken over what is normally Navy's function--the selection and training of personnel for nuclear submarines. He would like us to examine the possibility of returning these functions to the Navy, leaving the final certification and passing on personnel competence to Rickover. 2. He thinks it is very poor to run a department like Naval Reactors without a Deputy Director, because this will leave us in a very difficult situation in the event Rickover became incapacitated. Rickover isn't convinced of the need of a Deputy, but apparently thinks highly of Crawford, who is near retirement age. Perhaps the solution will be to appoint Crawford as Deputy Director in a post-retirement position, possibly even giving him a presidential promotion to the rank of Rear Admiral.

From 11:20 to 11:30 a.m. I met with Governor Donald Russell of South Carolina and Walter Brandon, Director of the South Carolina Space Agency. The Governor said he is cognizant of the poor posture of states like South Carolina and surrounding states in higher education. He would like the AEC to explore the possibility of a cooperative program for universities like the University of South Carolina, Clemson and the University of Georgia with the Savannah River Plant. This might be in the area of fellowships, research opportunities at the plant, etc. I told him I don't know whether this is feasible and pointed out that the Savannah River Plant involves a classified operation. I said I will have staff look into it and possibly will be in a position to talk to him and the Savannah River people about it during my forthcoming visit on April 7th and 8th. I said that in the meantime I will let him know if sufficient progress has been made to make such discussions worthwhile.

At 11:40 a.m. I received a call from Maritime Administrator Don Alexander who expressed concern over ACRS refusal to approve the post-Galveston operation of the NS Savannah without extensive changes in its plant. A large schedule has been laid out, including European ports, so this will pose another difficult situation. He wanted to know whether I can advise him as to what should be done. I said I am not sure and suggested that he read the ACRS report. I said we will be in touch with him.

I had lunch with Webb, Waterman, Keppel and Simpson (Assistant Administrator for Public Affairs, NASA) in Webb's office to discuss cooperative programs to build up a number of graduate schools.

I met with Algie Wells, just returned from Russia, who brought me a letter (copy attached) from Andronik M. Petrosyants inviting me to Russia to sign the Agreement for Cooperation. I will probably go in May.

Peter and Lynne went to the premiere of Lawrence of Arabia.

STATE COMMITTEE OF THE COUNCIL OF
MINISTERS OF THE U.S.S.R. FOR THE
UTILIZATION OF ATOMIC ENERGY

Moscow

DECL. BY DOE
NOV 88

February 19, 1963

Dear Mr. Seaborg:

I have received your letter dated February 7 in which you expressed wish on meeting of the representatives of our Committee with Mr. Algie A. Wells and Mr. Melvin Abrahams on problems concerning the arrangements for cooperation in the peaceful uses of atomic energy.

This meeting was held on February 19 and I have the pleasure to note that there is no difference of principle concerning the essence of the problems contained in the draft of Memorandum prepared taking into consideration proposals stated in your letter dated February 7, 1963.

I agree with you that this document could be signed this Spring.

Thank you for your kind invitation to visit the U.S.A. and to visit some research facilities and institutions.

As it is known, during the signing of the previous Memorandum in 1959 our scientists were in the U.S.A. and had been received with hospitality by the U.S.A. Atomic Energy Commission.

In this connection I have the chance with great pleasure to invite you and your colleagues to visit the U.S.S.R. at your convenience and to see our research institutions.

During your visit signing of the Memorandum on the cooperation in the field of the peaceful utilization of atomic energy also could be made.

Sincerely,

A. Petrosyants

Mr. Glenn Seaborg

Chairman

United States Atomic
Energy Commission

Washington 25, D.C.

Tuesday, February 26, 1963 - D. C.

At 9:50 a.m. I presided over Information Meeting 248 (notes attached).

I placed a call to Palfrey in Paris, which came in during the Information Meeting. I told him that John Conway, Senators Jackson and Pastore are still worried about whether our mission in Europe has enough technical help. Palfrey says that Harold Agnew and Colonel Goldenberg are in Paris and are briefing the group today and tomorrow. Agnew will be present at the London meeting. I asked if they need Crowson. Palfrey said he doesn't think Crowson knows as much as the people they have there. Nuclear submarine technicians are not required because they are "not going around trying to sell that one." If they are needed, Palfrey says he will let us know.

I wrote a letter to the American Chemical Society in support of the nomination of James B. Ramsey of U.C.L.A. to receive the 1964 Scientific Apparatus Makers Award in Chemical Education.

At 11:30 a.m. the Commission met with Fletcher Campbell and Muller of the Nevada Sierra Pacific Power Company to hear their plans for nuclear power plants. They are considering a 150 MW plant by 1967-69 because conventional power costs 8.5 mils/KWH.

I had lunch with John Finney and Howard Brown at the Metropolitan Club to discuss the status of Oppenheimer's return to government in an advisory role. Finney knows of the letters to the AEC from the American Federation of Scientists (from Toll and Singer) pressing this issue. I asked him to hold off having this published until we have a chance to work on it. He hinted at our plan to give Oppie the 1963 Fermi Award as a start in this direction.

From 2 p.m. to 6 p.m. I attended a meeting of the Federal Council for Science and Technology in Room 208, Executive Office Building (resume of actions attached).

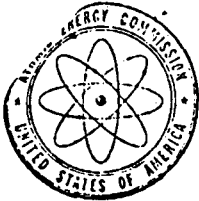
At 4:30 p.m. I called Senator Pastore to tell him that I have just sent him a letter regarding Welk's visit to Moscow last week and that the finishing touches have been made on the new Agreement for Cooperation with the Russians. I said that the USSR would like the signing of this Agreement to take place in Moscow and have invited me to participate. Pastore said he thinks this is a good idea. I told Pastore I should like Wells to see him regarding the Tarapur reactor. Pastore said that Wells can come over to talk with him but that he has strong feelings on the subject and is very sensitive about the subject of inspection. He feels the Indians have always been very resistant and their reasons are weak. In fact, he said, "Their attitude lines up with that of the Russians." He feels that the Indians will say no when the "chips are down." I said I would like to see him to discuss with him the technological capability of the Indians. Pastore suggested I give him a note, which he can put into the files. I said I have other matters I would like to discuss with him. He said we might be able to meet next week.

I sent my biweekly report (copy attached) to the President which includes a description of the Petrosyants invitation. I also wrote a letter to Rusk informing him of this invitation.

I attended a reception at the Laos Embassy given by the Ambassador in honor of the King of Laos and President Kennedy.

Wednesday, February 27, 1963 - Germantown

At 12 noon I called Secretary Korth regarding the third alternative concerning



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

UNCL. BY DOE
NOV 86

COPY NO. 75

February 26, 1963

INFORMATION MEETING 248

9:50 a.m., Tuesday, February 26, 1963 - Chairman's Conference Room, D.C.

1. Schedule for Wednesday, February 27

There will be no Information Meeting scheduled, and the Commission Meeting is scheduled for 10:00 a.m. instead of 11:00 a.m. (Secy)

2. ACRS Reports re N.S.SAVANNAH

The Chairman said Mr. Alexander, Maritime Administrator, had telephoned him re the recent ACRS letter on the N.S.SAVANNAH. The General Manager and Director of Regulation are to discuss the problem with the Commission at an early date. (GM/DR)

3. Agreement for Cooperation with the USSR

The Chairman noted the USSR letter which was given to Mr. Wells during the Moscow negotiations. The Chairman is invited to visit Moscow to sign the Agreement probably in early May, and the Secretary of State has urged that he do so, if possible. Dr. Haworth may accompany the Chairman. (Henderson)

4. Southern Universities Cooperative Research Program with Savannah River

The Chairman said Governor Russell of South Carolina had discussed with him yesterday the possibility of a cooperative program involving the universities of South Carolina, Georgia and Clemson. The staff is to consider what might be done for the Chairman's probable discussion during his April 7-8 visit to Savannah River. (McDaniel/Poor)

5. Mr. Bhabha's Visit Week of March 4

The Chairman noted Mr. Bhabha will be here next week, and that a reception is scheduled for Tuesday evening, March 5 and a luncheon on Thursday, March 7. The Commissioners discussed briefly the matter of the U.S. position on safeguards (Tarapur reactor). The Chairman suggested the Commissioners review the Department of State and AEC positions and discuss the problem prior to the meetings with Mr. Bhabha. (Wells)

6. NSAM dated February 20

The Chairman asked Mr. Henderson to take follow-on action. (Henderson)

7. Mr. Palfrey's Telephonic Report from Paris

The Chairman discussed Mr. Palfrey's call during the meeting at which time Mr. Palfrey reported that Mr. Agnew and Col. Goldenberg are available to the team and were briefing the group today. Mr. Palfrey also has a list of available U.S. technical backup personnel which he will send to the Chairman for information of the Commission and the Joint Committee. It was Mr. Palfrey's judgment that additional technicians (including nuclear submarine) are not required at this time. Mr. Ramey noted that he and State and DOD officials are arranging an early briefing for the Joint Committee staff. (Henderson)

3. Commissioners' Meeting with Norris Bradbury to Discuss ROVER Program

9. February 15 Letter from Chauncey Starr re SNAP 4 Program

The General Manager said Mr. Starr's request is in review. (Pittman)

10. Weapons Research at Los Alamos

The Chairman commented briefly on Manson Benedict's letter which proposed that certain GAC members discuss the future role of the Los Alamos Laboratory with Dr. Bradbury and staff during the March 18, 19 and 20 GAC meeting at Los Alamos. Commissioner Wilson noted that he was planning to attend. The General Manager noted a recent letter from Dr. Bradbury will be staffed for the Commissioners' review prior to their early meeting with Dr. Bradbury in Washington. (Betts)

11. Weapons Effects Study

The Chairman requested consideration of the need for a study. (Betts)

12. Due Date for Study of Plutonium Requirements

The Chairman noted his letter to Mr. Bundy requesting delay.

13. Department of Defense February 15 Letter re Use of Plutonium in Weapons

The General Manager noted the letter is in review for preparation of a reply. (Betts-Baranowski)

14. Underground Test Program

Dr. Haworth said he has the draft letter re program for the balance of FY 63 and will discuss it with the staff.

15. ACDA Report of Appendix re PLC/SHARE

Dr. Haworth said the appendix is in staff review for discussion with him prior to his early meeting with Adrian Fisher.

16. National Aeronautics and Space Council Request for Comments on Policy re Outer Space

The Chairman suggested Mr. Henderson review proposed comments with the General Manager. (Henderson)

17. February 14 Letter from Congressman Thomas Morris re Proposed NTS Community

The General Manager said a proposed response has been forwarded, and that he plans to discuss the matter with Congressman Morris on Thursday. The Chairman suggested it might be desirable to hold the reply until after the Thursday discussion.

18. February 11 Letter re World's Fair Exhibits

The Chairman suggested consideration of a proposed letter. (Gardner)

19. State Department Position re Inspection of Israeli Reactor

The Commissioners accepted the General Manager's recommendation. (Wells)

20. Appendices to Civilian Nuclear Power Report

The Commissioners said their comments would be into the General Manager by the close of business today, and the General Manager said he would transmit the appendices to the Joint Committee. Publication procedures are to be discussed later.

PRESENT

Dr. Seaborg
Dr. Wilson
Dr. Haworth
Mr. Ramey

Gen. Luedecke
Mr. Henderson
Mr. Hennessey
Mr. McCool

DISTRIBUTION

Commissioners
General Manager
General Counsel
Secretary

W. B. McCool
Secretary

FEDERAL COUNCIL FOR SCIENCE AND TECHNOLOGY

Minutes and Record of Action

UNCL. BY DOE
NOV 86

Meeting of February 26, 1963

The meeting convened at 2:00 p. m., in Room 208, Executive Office Building.

Attendance: Members of the Federal Council - Dr. Jerome B. Wiesner (Chairman); Mr. William Carey (for Mr. Elmer Staats - BOB); Dr. Hugh Dryden (for Mr. James E. Webb - NASA); Dr. E. C. Elting (for Dr. Willard Cochrane - Agriculture); Dr. Eugene Fubini and Vice Admiral Charles Martell (for Dr. Harold Brown - DOD); Dr. J. Herbert Hollomon (Commerce); Mr. Boisfeuillet Jones (HEW); Dr. Roger Revelle (Interior); Dr. Ragnar Rollefson (State); Dr. Glenn T. Seaborg (AEC); and Dr. Alan T. Waterman (NSF); Dr. Allen V. Astin (Standing Committee).

Participant: Honorable John Macy, Jr. (Civil Service Commission); Mr. George Auman and Dr. Charles Kidd (Panel on Scientific Personnel)

Guests: Mr. Seymour Berlin and Mr. Harold Leich (Civil Service Commission); Mr. Richard Callaghan (NASA); Dr. Earl Droessler and Dr. Randal Robertson (NSF); Mr. Howard Eckles (Interior); Mr. Edward Epstein and Dr. Thomas Malone (Commerce); Dr. Arnold Fritsch (AEC); Messrs. Russell Hale and Richard Hirsch (National Aeronautics and Space Council); Dr. Wallace Joyce and Mr. William Salmon (State); Messrs. Hugh Loweth and J. Lee Westrate (BOB); Messrs. David Z. Beckler, Jay Kelley, Michael Michaelis, Steven Rivkin and Irwin Tobin (OST).

Resume of Actions

Item 1 Chairman's Report - Transmittal to the Congress was announced of the FCST Water Resources report, the guidelines on Public Release of Research Grant Information, and the PSAC Science Information report, with Council comments. It was agreed, when implementing the policy on release of grant data, that agencies should take steps to minimize additional paper work by grantees.

Item 2 Federal Personnel Administration - Chairman John Macy of the Civil Service Commission briefed the Council on recent accomplishments, policy developments, legislative actions and problems continuing to deserve study in relation to Federal recruitment and retention of superior staff.

Implementation by individual agencies of FCST recommendations on non-salary measures to improve environment and incentives for in-house operation was reviewed, and results interpreted by the Panel on Scientific Personnel. Further assistance by the Panel was requested by Chairman Macy for the development and analysis of

statistics on Federal manpower losses and acquisitions. More deliberate and intensive study by agencies was recommended in relation to: 1) provision by CSC for continuity of its science advisory panel; 3) delegation of wider authority to laboratory directors; 5) development of more challenging mission statements; 7) further streamlining of Board of Examiner procedures.

Recommendations to release numerical ceilings on PL 313's were then discussed, in the context of problems arising out of the transition interval when GS 16-18 and PL 313's would be mixed, and of the longer run desirability of maintaining the PL 313 as a prestige service.

Item 3 Issues in International Meteorological Activities

The draft of the U. S. position for the imminent World Meteorological Congress, prepared by the ad hoc Interagency Group for International Programs in Atmospheric Sciences (IGIPAS), was brought to the Council for information and comment.

Dr. Hollomon, IGIPAS Chairman, outlined proposals focused on a world-wide data collecting network, on international programs in atmospheric research and in climatology, and on development of requisite personnel.

In light of uncertainty of Congressional action on the FY 1964 budgets and of foreign participation at the levels proposed, it was suggested that the U. S. delegation support the IGIPAS systems concept, but without commitment of U. S. participation at any specific funding level.

FEB 26 1963

PERSONAL AND CONFIDENTIALUNCL. BY DOE
NOV 86

Dear Mr. President:

I have the pleasure of submitting to you the regular bi-weekly report on significant developments in the atomic energy program:-

1. US-USSR Memorandum on Cooperation in the Field of the Utilization of Atomic Energy for Peaceful Purposes (Unclassified)

On Monday, February 25, 1963, I received a communication from Mr. A. Petrozyants, Chairman of the State Committee of the USSR Council of Ministers on the Utilization of Atomic Energy, indicating that the Soviet Union is prepared to enter into an extension of our Memorandum on Cooperation in the Field of the Utilization of Atomic Energy for Peaceful Purposes. Mr. Petrozyants noted that since the first Memorandum agreement was signed in the United States in 1959, it would be appropriate that the new Memorandum be signed in Moscow. Accordingly, an invitation has been extended to me and my colleagues to visit the USSR, during which visit the Memorandum agreement would be signed.

I am thinking very seriously of accepting the invitation for several reasons. First, it will afford an opportunity for me to talk directly with other scientists in the Soviet Union and thus obtain a first-hand impression of the state of advancement in science, particularly in the peaceful uses of atomic energy. Secondly, it has been our experience that the previous agreement has provided a very important line of informal communication to the scientific community in the Soviet Union. My colleagues and I feel strongly that this line of communication should

be kept open. Thirdly, the implementation of the Memorandum agreement will provide for other exchanges of visits and technical reports in the field of atomic energy. While such exchanges may be relatively less advantageous to the United States in the short-term, it is our feeling that over the long-term such exchanges provide an important vehicle for better understanding and better communication among and between the scientists of both countries.

A member of our staff has just returned from a visit in Moscow, where the provisions of the new Memorandum agreement were successfully negotiated, and I am informed that he was received cordially. Ambassador Kohler has advised me, through our staff member, that he considers a visit by me to be most desirable.

It would be my tentative plan to visit the Soviet Union during the last two weeks of May of this year, if this time is convenient to Mr. Petrosyants. I shall, of course, keep you informed as arrangements are finalized. It could well be that it would be desirable to talk to you personally just prior to embarking on the trip.

I enclose, for your information, a copy of the letter received from Mr. Petrosyants.

2. Congressional Hearing on Civilian Nuclear Power
(Unclassified)

On February 20-21, 1963, the Joint Committee on Atomic Energy (JCAE) held its annual statutory hearing on the development, growth, and state of the atomic energy industry ("202" hearings). This year's hearing focused on our recent Report to you on the role of civilian nuclear power. The JCAE's attitude naturally evidenced a desire for vigorous implementation of the recommendations in the Report. In my testimony, I expressed the conviction that the FY 1964 budget for AEC does provide for initial implementation of our Report. The testimony of principal non-AEC witnesses - Dr. Jerome Wiesner, and Messrs. Joseph Swidler (FPC) and James Carr (Interior) -

indicated that while all felt it to be a good report, it was not possible for them to give unqualified endorsement to the long-term developmental program recommended in the Report.

The transcripts of the first portion of this hearing will be published in the near future, and the remainder of the hearing will resume on March 26th, with testimony from industry and the public.

3. Indian Tarapur Power Reactor (Unclassified)

In my last report, I indicated that discussions were being conducted in Geneva on this matter. In these discussions, which were concluded on February 12, 1963, the U. S. delegation members strongly emphasized the U. S. desires that the International Atomic Energy Agency (IAEA) administer safeguards arrangements on the reactor and related special nuclear material when the Agency is in a position to do so. The Indians held fast to their position of preference for bilateral, rather than IAEA-administered, safeguards. Dr. Homi J. Bhabha, Chairman of the Indian AEC, has now communicated with me concerning further discussions to be held in Washington from March 3rd through March 8th.

* * * *

For your information, Senator Jackson and I are planning to visit the AEC production installation at Hanford, Washington, on March 15th. Of especial interest to us is the status of the NPR project which is under construction there. Following this visit, Senator Jackson and I will be attending the 75th Anniversary Convocation of the University of Puget Sound, in Tacoma, on March 16th and 17th. I plan to give an address before that Convocation on the evening of March 16th.

Respectfully submitted,

(Signed) Glenn T. Seaborg

Glenn T. Seaborg

The President
The White House

Admiral Rickover--his continuing on, but in a civilian capacity. I asked whether AEC or Navy will pay his salary. Korth says that Rickover, at the time of their meeting, expressed a preference to be employed by the Navy. However, Korth says that at the time he did not realize there is a statutory prohibition against his employment by the Navy as a civilian, unless he should be retired on at least 10% disability. The same law, however, states specifically that the AEC may employ retired military personnel whether they have been retired for disability or not.

I talked to Rickover about my discussions with Korth concerning his post-retirement (from Navy) future. I said we agree that he should stay on and the best way of doing this is as a civilian working for the AEC but with the same authority as he now has. Rickover agreed to this but insists that he continue to select and train nuclear submarine personnel and recommends that one of his four assistants (he mentioned Rockwell) be appointed as his deputy. I reported this to Korth in a phone conversation at 4:55 p.m. Korth will take the matter up with McNamara on Friday and then get in touch with me.

President Kennedy talked with Lee Haworth today and asked him to accept the position as Director of the National Science Foundation. Haworth said he will accept and about July 1st will change over. This presents a serious problem because his successor must be announced at the same time as his new appointment in order to avoid the difficulties we had in choosing successors to Graham and Olson last summer. I discussed this with Wiesner and we agreed that Jerry Tape (AUI), Manson Benedict and Dale Corson (Cornell) are the best prospects.

I had lunch with Poor, English, Dunham, Luedecke, Fritsch and others to discuss, preparatory to my Hanford trip, the cooperation of universities (University of Washington, Washington State, Oregon State) with Hanford in biological work and the takeover by the Tri-City Nuclear Council of some of the Hanford program.

At 2:25 p.m. I presided over Information Meeting 249 (notes attached).

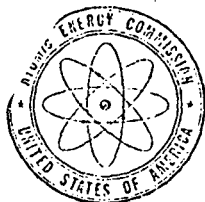
I talked again by phone with Palfrey today regarding the progress of the Merchant team on the NATO negotiations.

Dave Hall (Chairman ACRS) called at 3:10 p.m. saying he understands we want an interpretation of the ACRS letter regarding the Savannah. He said this will be difficult to do without assembling as many ACRS members as possible. He asked if he could clear up any misunderstandings in a telephone conversation. He said none on the Committee has any intention of quarantining the ship. What is planned is that the ship undergo an overhaul at the Galveston yard. At the time of the meeting they had not been informed about the kind of an overhaul it would be and were asking for this information.

I told him the press picked up the ACRS letter and particularly the statement, "the committee specifically cannot recommend any approval of operation beyond Galveston and feels that such approval must await a full review of the ship status at that time." (Press reports are attached.)

I said there would have been no problem had the statement read, "the committee specifically cannot recommend at this time . . ." Dave said this is implied in the letter and that, if we wished, we can issue a statement to that effect. I asked whether I understood him correctly--that he didn't want to write another letter, but he did want us to understand that the Committee intended a full review, with an open mind, after the Galveston visit. He said this was correct. It was agreed that the General Manager will draft a press release and will check it out with Dave.

At 3:20 p.m. Senator Pastore called to suggest that we breakfast together in the



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

COPY NO. 15

February 27, 1963

UNCL. BY DOE
NOV 86

INFORMATION MEETING 249

2:25 p.m., Wednesday, February 27, 1963 - Chairman's Conference Room A-457

1. February 25 Letter from Dr. Wiesner re Energy Resources Study

The Chairman said he would discuss with Dr. Haworth, Dr. Wiesner's request that an individual be named as a contact point. He noted that the request for comments was, in the case of AEC, an opportunity but not a requirement; however, if Commissioners wish to prepare comments they were free to do so.

2. Letter from Kermit Gordon re Reprogramming of Funds for Maritime Program

The Chairman said he would mention this to Mr. Alexander when he telephones him Thursday.

3. Letter to Kermit Gordon re Low Energy Physics

The Chairman said he had signed the letter.

4. Report by Subcommittee of EEI on Value of Plutonium

Dr. Wilson reported briefly on his discussion with members of the subcommittee and said the report would be modified.

5. Newsweek Article re 202 Hearings Testimony

The Chairman suggested consideration be given to the desirability of correcting the inaccuracies of the Newsweek article. He noted that a letter to Newsweek might be more effective if it came from an industry source. (GM)

PRESENT

Dr. Seaborg
Dr. Wilson
Mr. Ramey
General Luedecke
Dr. Beck
Mr. Brown
Mr. Hennessey
Mr. Hoyle

DISTRIBUTION

Commissioners
General Manager
General Counsel
Secretary

W. B. McCool
Secretary

WASHINGTON POST - February 28, 1963

AEC Issues Statement on Atom Ship

Associated Press

The Atomic Energy Commission yesterday sought to try to correct "an erroneous impression that has gotten abroad that something has suddenly gone terribly wrong" with the power plant of the 53-million-dollar N. S. Savannah, the world's first atomic-powered merchant ship.

The controversy, and yesterday's clarification, followed a letter from David B. Hall, chairman of the AEC Reactor Safeguards Committee, saying that his group could not approve further operation of the Savannah until an extensive overhaul—now under way at Galveston, Tex.—is completed and a full review of the ship's operational status is made.

A. R. Luedecke, general manager of the AEC, said that the Safeguards Committee statement was not intended to be construed as a recommendation concerning the ship's future operations.

Luedecke said that he ascertained this after conferring with Hall, of AEC's Los Alamos scientific laboratory.

"The authorization under which the ship has operated was only for the initial series of port visits, which was completed when the ship was berthed at Galveston, its service port," Luedecke said.

"It has been planned that a review of operations would be conducted and that modifications to the ship would be made after the initial series of port visits."

"I have been advised that the Committee did not intend

in its letter to recommend any specific modifications as a prerequisite for future voyages of the ship."

In Galveston, B. W. Winchell, manager of Todd Shipyards nuclear division, said reversing gears will be installed in the ship's auxiliary diesel-electric engine.

He said the modification will meet the specifications of the AEC for a "reliable auxiliary power source with ade-

quate maneuvering and propulsion reversing capacity."

Winchell said the Savannah will undoubtedly be ready for another voyage in May.

WASHINGTON POST - February 27, 1963

Future of Nuclear Ship Savannah Left in Doubt

HOUSTON, Feb. 26 (AP) — The safety committee of the Atomic Energy Commission

says it will not recommend any immediate future voyages of the nuclear ship Savannah.

The Savannah is tied up at Todd Shipyards in Galveston for an overhaul of its nuclear propulsion system.

In a letter released today by the AEC, the advisory committee on reactor safeguards said the committee specifically cannot recommend any

approach of operation beyond Galveston and feels that such approval must await a full

review of the ship's status at this time.

Gene Washington, an AEC spokesman, said the committee's recommendations were advisory and final action up to the commission when it receives a report on the re-

view of the ship's status, probably next month. He said a special AEC staff committee had been appointed to make

the review.

Senate Dining Room on Tuesday, March 5th. I suggested he consider going to Moscow with me the latter part of May, but he said this is a bad time for him because of his activities on the Appropriations Committee. I also suggested he consider accompanying Senator Jackson and me to Hanford the middle of March, but he said that March 17th is his birthday and he had plans to spend the weekend with his family. Pastore said that the G.E. people want to see him with some Indian representatives. He said that if G.E. wants to give a briefing, and in which case Pastore feels AEC should also attend, it's fine with him. He doesn't want to be put into the position of disagreeing in front of representatives of a foreign government. He said this is also the reason he will not attend the AEC reception for Homi Bhabha the evening of March 5th.

Again, I mentioned that I would like to talk with him about the technological capability of India and the matter of safeguards. I said I was sending him a very personal letter (copy attached) which was sent to me by a friend who visited India. I said I would like him to read it and I appreciated his not having it go any further. He said we can discuss this matter next week. He said if we get the Indians to agree to international safeguards he will withdraw his objections on helping to finance the Tarapur reactor. He argued that if we don't have international inspection, we have no business being in the IAEA. Pastore said I should tell Bhabha that he is adamant on this. I said the release of our February 8th letter to him (copy attached) has tipped our hand and has hurt our position because we intend to be tough and, perhaps, never go to the "fallback" position. When he said we should have indicated in the letter the desire to hold this confidential, I replied that we had done so in the penultimate paragraph. He said he doesn't recall this but will check the letter.

I received a letter from Marjorie Gardner of the National Science Teachers Association (copy attached).

Thursday, February 28, 1963 - Germantown

At 10:15 a.m. I presided over Commission Meeting 1914 (action summary attached).

I worked with Haworth on the staff-prepared letter to Bundy requesting the President's approval for STORAX IV, the underground tests for April 1st to June 30th. The problem is that the staff is requesting 25 weapons tests plus VELA and PLOWSHARE which is more than the President directed.

We sent the AEC FY 1964 Authorization Bill to Congress (Vice President Johnson and Speaker McCormack) with a copy to JCAE Chairman Pastore.

I received a carbon copy of a letter from McNamara to Rusk suggesting that the U.S. sell another battalion each of PERSHING and SERGEANT missiles to West Germany to satisfy their request and to encourage them to put more into conventional forces.

Panofsky and others from Stanford briefed the Commission on the Stanford Linear Accelerator Center. A big impending problem is how to get funds needed for scientific equipment (\$20 to \$30 million) to go with this \$114 million machine.

At 4:25 p.m. I called H. I. Romnes (President, Western Electric Company) and told him that the Commission approved a five-year renewal of their contract for the operation of Sandia. Romnes said that he and Jim Fisk may want to come to Washington to discuss the philosophy under which they will continue to operate. (They operate without a fee and may be considering whether this operation, in balance, is good for their company.)

I sent a letter to BOB (copy attached) about our FY 1965 low energy physics program. Kermit Gordon's answer is attached.

PERSONAL AND CONFIDENTIAL

February 27, 1963

UNCL. BY DOE
NOV 86

Dear John:

This is in regard to the information which I have on Indian technological ability to which I referred in our telephone conversation yesterday.

I have just received a handwritten letter, a copy of which is enclosed, from a friend of mine who was writing to me in a personal vein and I am sure, therefore, didn't expect it would receive any further distribution. However, the information in the letter is so relevant to the Indian problem, and my faith in the good judgment of the writer of the letter is so great, that I am taking the liberty of sending this copy to you. I think it would be best, however, if you use the information to help you form your own judgment, and that the letter not receive wider distribution.

Cordially,

(Signed) Glenn T. Seaborg

Glenn T. Seaborg

The Honorable John O. Pastors
Chairman
Joint Committee on Atomic Energy

Enclosure

GTS:ms

*Chrom. Lab. Orig. Handwritten note
ms.*

199

(Delivered by Hand)

PERSONAL AND CONFIDENTIAL

COPY

Bombay, 22 Feb. 1963

Dear Glenn:

ENCL. BY DCI
NOV 86

Here we are in Bombay none the worse for our mild adventures. This has been a fascinating trip for all of us and one long to be remembered.

I was going to drop you a line when we arrived in Israel giving some impressions of places I visited. However, I have heard and read that some negotiations are to be held in Washington very soon vis-a-vis relations with the Indian atomic energy effort. I also saw a news item to the effect that Senators Pastore has written you urging caution in getting involved with a country (India) which does not have the technical capacity to sustain something as complex as a nuclear power industry. I would like to comment on this because I would have had the same thought before my visit which has been a real eye opener.

My visit here has been much too brief to see everything, let alone to understand how the remarkable progress has come about. A key to the puzzle would be to understand how the Sharma we knew has developed into a sound and thorough organizer, one who has built excellent laboratories, trained a hundred people or so and has a vigorous program running the gamut from pure research to the most practical industrial technology.

There is a similar story in nuclear physics, electronics, engineering and what have you. I saw some mighty impressive accomplishments in all areas and, what is most important, enthusiastic young people numbering in the hundreds doing sound and imaginative work. I think that the drive exhibited by these young people can best be gauged by the fact that they had no foreign exchange so they built all of their own instruments and equipment. In the process they learned enough to make decided improvements (in electron diffraction at high temperatures, as an example). Sharma tells me they now have about 500 electronics people alone designing and building equipment for themselves and for the universities.

I saw an intermediate scale plutonium extraction plant under construction (100 tons fuel/yr) designed largely by young people with little previous experience. I never saw such a motley construction crew in my life, but I'll bet the plant works. I also saw development work on jacketing uranium by electroplating aluminum from organic solvents. (They wouldn't give me the recipe because they want to patent the process.) The specimens looked beautiful and uniform. I don't know whether this will have any advantage over other methods of cladding but it does represent pretty advanced technology.

I paid a brief visit to the Tata Institute in their elegant new quarters. I discussed nuclear structure problems with a few physicists and found that they are digging into details of measurement and interpretation at a level comparable to what we do at home. The physical facilities of the Institute are excellent as far as I could tell in a quick look.

In summary, I would say that the place here is ripe to handle any job with a modicum of advice and aid with materials which they do not have.

Please give our regards to Helen and the kids. If I can do anything for you from Israel please let me know. We shall arrive Febr. 28.

Best wishes,



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

80 FILE 41

FEB 8 1963

UNCL. BY DUC
NOV 86

Dear Senator Pastore:

On January 19, 1963, representatives of the Department of State, assisted by representatives of the Atomic Energy Commission, met with Joint Committee staff members and briefed them on the recently adopted United States position on the transfer of bilateral safeguards responsibilities to the International Atomic Energy Agency (IAEA). A copy of the Department of State's policy statement on this subject was subsequently provided for the Committee's information, by the Department, on January 22, 1963.

The Commission actively participated in the review of U. S. policy toward the IAEA and in formulating the newly established policy. The basic objective was to determine how the U.S. might best proceed to strengthen the Agency's safeguard responsibilities now that the Agency has successfully established an initial safeguard system which covers nuclear reactors of up to 100 MW thermal. During this review the principal question was whether the U.S. should insist that cooperating nations submit to IAEA safeguards or whether it should continue to follow a persuasive approach in encouraging other nations to submit to IAEA controls. Particular attention was given to the role the IAEA should play in any U.S.-Indian cooperative arrangement in connection with the proposed Tarapur Atomic Power Project. An outline of the policy is set forth below:

a. The United States will continue to adopt a persuasive approach in encouraging cooperating countries to submit to Agency safeguards. This approach already has been reasonably successful and is likely to be even more so in the future. The alternative of adopting a mandatory policy could result in the cancellation of some important existing projects or in forcing some countries to seek their assistance from suppliers who do not require safeguards.

b. At the same time, however, a substantially greater diplomatic effort will be made to persuade countries to agree to IAEA controls. To this end, over the next six to eight months the Department of State will make a

vigorous effort to place a number of our bilateral agreements under the existing (100 MW) Agency safeguards system and to persuade our new bilateral partners to accept IAEA controls, in principle, in conjunction with the negotiation of new agreements. This effort will exclude the EURATOM nations since EURATOM has its own multilateral safeguard system.

c. Inasmuch as the Agency's role as a supplier of materials appears to be less meaningful than its role in applying safeguards it has been agreed that the U. S. should continue to supply fissionable materials either bilaterally or through the Agency depending on the wishes of the cooperating country.

d. The proposed new policy will be applied in the following fashion to the Indian Tarapur case: (i) An attempt will be made, at the highest level, to persuade the Indians to accept, in principle, IAEA safeguards, now, recognizing that such agreement must be subject to further negotiations when IAEA safeguards are set up for high power reactors of over 100 MW thermal. (ii) The U.S.-Indian bilateral agreement will contain effective bilateral safeguards and the clause contemplating a transfer of safeguards to the IAEA that is normally found in our comprehensive bilateral agreements. This clause enables either party to cancel the agreement in the event of failure to agree on the application of Agency safeguards. (iii) Failing the achievement of the objectives outlined in paragraph (i), an understanding would be reached with India that India will be expected to give sympathetic consideration to the application of Agency safeguards to Tarapur when these safeguards have been developed. The United States, in turn, would be willing to describe to India the circumstances under which we might exercise our right to terminate the agreement if India does not accept Agency safeguards when they are developed.

Representatives of the Commission and of the Department of State plan to meet with Dr. H. J. Bhabha, Chairman, Indian AEC, and other Indian officials on February 11 and 12 in Geneva, while in Europe to attend the IAEA's Board of Governors's Meeting, to discuss the above outlined policy and other matters relating to cooperation with respect

Senator Pastore

- 3 -

to the Tarapur Project. Since we hope, of course, to achieve our initial position in negotiations with the Indians, we believe any publicity at this time on our position, particularly the "fallback" position, would be detrimental to achievement of this objective. We would be very appreciative of the Committee's cooperation in this regard.

We shall keep the Committee informed of significant developments on this matter.

Sincerely,

(Signed) Glenn T. Seaborg

Chairman

Honorable John O. Pastore
Chairman, Joint Committee
on Atomic Energy
Congress of the United States

cc: Chairman Seaborg (2) ←
Commissioner Haworth
Commissioner Palfrey
Commissioner Ramey
Commissioner Wilson
General Manager
Secretariat (2)
AGMIA
Congressional Liaison (2)
Thomas, State, (2)

NATIONAL SCIENCE TEACHERS ASSOCIATION

1201 SIXTEENTH STREET, N. W. • WASHINGTON 6, D. C. • ADAMS 4-4848

A DEPARTMENT OF THE NATIONAL
EDUCATION ASSOCIATION

AN AFFILIATE OF THE AMERICAN
ASSOCIATION FOR THE
ADVANCEMENT OF SCIENCE

ROBERT H. CARLETON
Executive Secretary

February 25, 1963

Dr. Glenn Seaborg
Chairman, Atomic Energy Commission
Washington 25, D. C.

9555 2/26/63

Dear Dr. Seaborg:

I talked briefly today with one of your staff members about a new program that is developing for the improvement of the pre-service education of science teachers. This letter and the enclosed material will provide further information. I will call your office Wednesday afternoon to talk with you further by phone or to arrange an appointment.

Scientists and educators, including those responsible for the new high school science courses such as CHEM Study, are concerned about the college science and education courses for future science teachers. A cooperative effort to improve the pre-service education of science teachers is one of the important actions now required for the advancement of education. An undertaking of this import and potential -- one that can affect the development of teacher education programs and influence the quality of science teaching for many years -- must be designed and guided by individuals with wisdom and experience of the highest caliber.

On behalf of the presidents of the National Science Teachers Association and the Association for the Education of Teachers in Science, I am privileged to invite you to serve on this Steering Council. We hope you will find it possible to accept this invitation, for your participation will help insure the success of this project. Fletcher Watson of the Harvard Graduate School of Education will be chairman and the council will be comprised of distinguished scientists and educators. We hope to maintain close liaison with the professional science and education organizations and with the course improvement projects such as PSSC, CHEM, CBA, BSCS.

Some initial ideas have already been developed. Now the Steering Council is being organized and will be essentially an autonomous body authorized to design the project, develop the proposal for financial support, and direct the program through its executive committee and project staff.

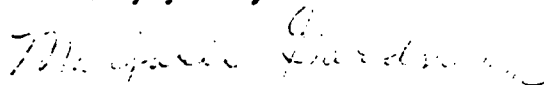
Dr. Glenn Seaborg
February 25, 1963
Page Two

We have scheduled a first work session for members of the Steering Council who can be present March 1 and 2 in Washington, D. C. Although your attendance at this first meeting is not necessary for participation on the Steering Council, it would be a distinct advantage if you could be present. Information on meeting plans will be sent to you if you plan to attend.

Preliminary discussions regarding the possibility of supplying some financial support are being held with representatives of the National Science Foundation. Indications are that such a proposal can be considered by the Foundation. As a result, we expect that the proposal developed by the Steering Council will be submitted to NSF for consideration with a request for support so that it may become operational in the summer of 1963.

Since all members of the Steering Council are busy, heavily committed people, we will make every effort to keep requests for your time as reasonable as possible. There will probably be two meetings per year of the full Steering Council, each of two-day duration. We sincerely hope that you will join us to explore and propose significant improvements in the pre-service education of science teachers.

Sincerely yours,



Marjorie Gardner
Assistant Executive Secretary

MG:ds

cc: Fletcher Watson

UNITED STATES GOVERNMENT

Memorandum

TO : Robert E. Hollingsworth, Deputy
General Manager

DATE: February 28, 1963

Approved *R.E. Hollingsworth*

FROM : W. B. McCool, Secretary

R.E. Hollingsworth

Date 3/1/63

SUBJECT: ACTION SUMMARY OF MEETING 1914, THURSDAY, FEBRUARY 28, 1963,
10:15 A.M., ROOM A-410, GERMANTOWN, MARYLAND

SECY:MK

Commission Business

1. Minutes of Meetings 1899, 1900, 1901, and 1904

Approved, as revised, subject to incorporation of changes by Commissioners Ramey and Haworth. Minutes of Meetings 1899, 1900, 1901, and 1904 are subject to comments by Commissioner Palfrey and Minutes of Meeting 1901 subject to comments by Commissioner Haworth.

2. NTS Labor Situation

You said you would brief the Commission on the present labor situation at NTS after the briefing on Stanford Linear Accelerator.

3. AEC 782/48 - Amendment to US/UK Agreement for Cooperation for Civil Uses of Atomic Energy

Approved, as revised. (Wells)

• Commissioner Wilson requested that Section (3) of paragraph 5 of Appendix "B" to AEC 782/48 be deleted. This matter should be noted in the letters to the JCAE and Sir Roger Makins.

(Wells)

4. Supply of U-235 to UK

The Commission requested preparation of an appropriate letter to be dispatched by April 1, 1963. (Wells)

5. AEC 1131 - Acceptance of Proposals as a Basis of Negotiation Under the Third Round Extended of the Power Demonstration Reactor Program, and
AEC 1131/1 - Addendum to AEC 1131

Approved, as revised. (Vinciguerra)

The Commission requested that Enclosures I and II to AEC 1131/1 be revised in accordance with the discussion at the Meeting.

(Vinciguerra)

February 28, 1963

Commission Business (cont'd)

6. AEC 199/18 - Extension of Sandia Contract with Western Electric Company

Approved. (Vinciguerra)

Other Business

1. AEC FY 1964 Authorization Bill

The Commissioners agreed the letter should be transmitted to the JCAE. (Abbadessa)

2. Use of UK Pu for Civilian Purposes

The Commission noted Mr. Well's status report.

3. Meeting with Messrs. Alexander and Robb re N.S. SAVANNAH

I will schedule an early meeting.

4. Appendices to Civilian Nuclear Power Report

The Commissioners agreed to Dr. Haworth's proposed corrections.

Approved, as revised. (Vinciguerra)

Approved, as revised. (Vinciguerra)

The Commission requested that Enclosures J and K to AEC 199/18 be revised in accordance with the discussion at the meeting.

cc:
Commissioners

(Vinciguerra)

2-28-63

ENCL. BY DOE
NOV 85

Dear Kermit:

The Commission thought it might prove helpful if we provided you with background information regarding our thinking on the low energy physics program which we propose to include in our FY 1963 budget request. As you may be aware, considerable concern has been expressed recently both inside and outside of the government that adequate support be provided for the field of low energy nuclear physics. The case for this area of physics largely concerned with nuclear structure has been emphasized many times in the past, especially by our General Advisory Committee and by the Joint Committee on Atomic Energy.

The Commission recognizes that there has been some improvement recently in the federal support of this area. However, we are convinced that we are not yet providing the level of support that it deserves. We have not seized upon enough of the opportunities that stand out in this field. There have been a number of major technological breakthroughs in the past several years which make many of the older accelerators and equipment obsolescent. This results in a very inefficient use of valuable scientific manpower associated with these facilities. In addition there is a very sizeable backlog of requests by competent groups for support of new facilities.

More recently an advisory panel to the National Science Foundation reviewed the field of nuclear structure physics, and made a number of broad recommendations which go with their assessment that this field continues to show a promising future. The Commission agrees with this viewpoint but feels that the panel recommendations on the funding levels are on the conservative side and represent the minimum program that should be supported by this country.

There is no question but that this research area of low energy nuclear physics is very vital to the major missions of the Atomic Energy Commission. On this account alone, we must maintain a forward-looking program within the AEC. In addition, the Commission together with the rest of the nation is concerned with the education of our young scientists. It is the AEC's belief that this is one of the

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Received by _____
Date 2/27/63

fields of graduate research which is ideally suited for the development of young scientists at our universities. Thus, we reap an important two-fold benefit from strong university programs in this research area.

A strong national program in low energy nuclear physics, although directly related to the AEC's mission, also warrants multi-agency support because of its broader benefits. The AEC will, therefore, continue its close coordination with the National Science Foundation and the Office of Naval Research in this regard.

The Commission has therefore requested that the planning in our FY 1965 budget for the low energy nuclear physics program be based on providing for substantially increased support. You may also expect that we will be seeking to provide new accelerators and the buildings to house them for location on university campuses in order to rectify the present discrepancy between the operating budget associated with obsolescent accelerators and the small construction budget for replacement of these machines and new starts.

I hope that you will be convinced, as we are, of the value of this area of research and that the proposed budget, at the appropriate time, will have the approval of the Bureau.

Sincerely yours,

/s/

Glenn T. Seaborg

Honorable Kermit Gordon
Director
Bureau of the Budget

cc: Dr. Jerome B. Wiesner
Dr. Alan Waterman

A.R. Fritschies

EXECUTIVE OFFICE OF THE PRESIDENT

BUREAU OF THE BUDGET

WASHINGTON 25, D.C.

MAR 13 1963

Honorable Glenn T. Seaborg
Chairman, Atomic Energy
Commission
Washington 25, D. C.

ENCL. BY DOE
NOV 86

9575 3/14/63

Dear Mr. Chairman:

Thank you for informing me of the Commission's views regarding the field of low energy physics as expressed in your letter of February 28, 1963.

We have been closely following developments in this field, which appears clearly to be an important one. I note with interest that from fy 1962 through fy 1964 nearly \$50 million of new obligational authority will have been appropriated to AEC, NSF, and ONR for the procurement and construction of new low energy accelerators. This includes \$12.0 million in the President's budget for what I understand is to be the finest machine of its kind in the world and one which was specifically designed to maintain AEC's position as a world leader in this field of research.

I look forward to further consideration of this matter with you during the coming Spring Preview of the 1965 budget.

Sincerely yours,

Alvin Gorden
Director

Friday, March 1, 1963 - D.C.

At 9:55 a.m. I presided over Information Meeting 250 (notes attached). We approved a reply to Pastore's letter of February 19, 1963, (copies of correspondence attached) with regard to the Tarapur Reactor.

McNamara and McCone, at the request of the President, evaluated the security risk and feasibility of the Multilateral NATO Polaris nuclear submarine force and concluded that the security risk (of information) is large and feasibility is possible, but borderline because of safety and control problems. This is contrary to last week's suggestion made by McCone to the President--this might not involve a serious security problem and will be feasible.

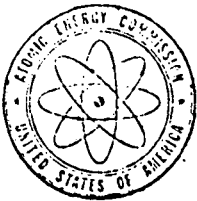
At the invitation of Marjorie Gardner (Assistant Executive Secretary of the NSTA) I had lunch with the Steering Council of the National Science Teachers' Association at the Pick-Lee Hotel. The group included Fletcher Watson (Harvard), Paul Hurd (Stanford), Alfred Garrett (Ohio State), Marjorie Gardner, and others. The purpose of the meeting was to discuss a program for improving the college education of high school and elementary school science teachers. I may join the Steering Council of this project.

At 3 p.m., in a ceremony at the Smithsonian Institution, I presented a one-inch cube of original uranium from the CP-1 pile (December 2, 1942) to Secretary Dr. Leonard Carmichael. The uranium is encased in a plexiglass model of the original pile. Those present at the ceremony included Commissioner Wilson, Philip Bishop (Head Curator, Museum of History and Technology), Clyde Cowan (Catholic University) and Frank Taylor (Director, Smithsonian). Members of the press were also present.



Ceremony upon Presentation of Model of First Nuclear Reactor
to Smithsonian Institution
March 1, 1963

L to R: Wilson, Seaborg, Leonard Carmichael (Secretary of the Smithsonian), and Philip Bishop (Head Curator, Museum of Science and Technology, Smithsonian)



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

UNCL. BY DOE
NOV 86

March 1, 1963

COPY NO. 115

INFORMATION MEETING 250

9:55 a.m., Friday, March 1, 1963 - Chairman's Conference Room, D. C. Office

1. Energy Resources Study

The Chairman referred briefly to the President's February 15 directive and Dr. Wiesner's February 25 memorandum and said Dr. Haworth will be the Commission's representative with Commissioner Ramey to assist him. The staff is to draft a statement of Commission views for consideration early next week. (English)

2. February 27 BoB Letter re FY 64 Authorization Bill

The Chairman noted receipt of the Bureau's letter and said he had transmitted to the Congress yesterday the Commission's FY 64 bill.

3. Secretary of Defense's and CIA's Response to NSAM

The Chairman noted the response will be circulated for the Commissioners information. (Brown)

4. Telegraphic Report from Commissioner Palfrey

The Chairman noted receipt of Mr. Palfrey's telegram containing information on the technical team and backup representatives in Washington which has subsequently been transmitted to the Joint Committee. The General Manager noted that Col. (Brig. Gen.) Crowson is due in Paris today.

5. Secretary of Defense's February 25 Letter to Secretary of State re Purchase of Material by the Federal Republic of Germany

The Chairman requested staff review. (Betts/Wells)

✓ 6. Draft Reply to Senator Pastore's Letter re Tarapur Reactor

The Commissioners requested revision of the letter, clearance with the Department of State and transmittal to Senator Pastore today. (Brown/Wells)

7. Chairman's Discussion with Western Electric Official

The Chairman noted that he had telephoned Mr. Romnes yesterday to extend the Commission's appreciation for Western Electric's work and to inform him of the Commission's proposed extension of their contract. He noted that Messrs. Romnes and Fisk wish to meet with him to discuss the matter.

8. Letters to Senators Eastland and Stennis re Tatum Salt Dome Experiments

The Chairman said the letters should be sent today. (Brown)

9. Commissioner Ramey's Proposed Reply to Senator Fong

The Commissioners agreed the letter should be sent with brief changes, as discussed.

10. General Manager's Report on Labor Situation at NTS

11. General Manager's Report on Strike of Firemen Operators at Sandia and Livermore Yesterday

12. General Manager's Report on his Meeting with Congressman Morris to Discuss Proposed NTS Community

13. Agenda for the Week of March 4, 1963

Approved, as revised. As discussed, I will attempt to schedule Monday and Friday meetings, other than information meetings, in the afternoons. (Secy)

PRESENT

Dr. Seaborg Gen. Luedecke
Dr. Wilson Mr. Hennessey
Dr. Haworth Mr. Brown
Mr. Ramey Mr. McCool

DISTRIBUTION

Commissioners
General Manager
General Counsel
Secretary

W. B. McCool
Secretary

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DC FILE

MAR 1 1963

UNCL. BY DOE
NOV 86

Dear Senator Pastore:

I wish to thank you for your letter of February 19 advising us of your views on certain aspects of the proposed Tarapur Atomic Power Project.

With respect to the question of safeguards, we want to assure you that the negotiations have been and will continue to be conducted with the firm intention of establishing the principle of application of safeguards by the International Atomic Energy Agency. In the negotiations we have had to date, we have presented and vigorously pressed for this position. The precise language through which this principle is established must, of course, be developed through negotiations with India. Discussions of this matter will be resumed in Washington with Dr. Bhabha beginning March 4.

The question of whether India has the capability of successfully operating the proposed reactors is a most important one to which we have given careful consideration. In 1960 an AEC technical team including the Deputy Director of Oak Ridge National Laboratory, the Assistant Director for Civilian Power in the Division of Reactor Development and other senior AEC and laboratory personnel visited India to make an assessment of their capabilities in the field of atomic energy. The group visited numerous Indian scientific and industrial installations as well as their atomic energy facilities. One of the strongest impressions which this group received was of the competence of the top level Indian administrators and scientists. India has, with the aid of these top level people, been operating for many years industrial plants of the most advanced type in fields such as metallurgy, petrochemicals, machine tools and electronics. India has also developed an atomic energy establishment that compares favorably with those in a number of European countries. They independently designed and built a 1 MW swimming pool reactor and have been operating it successfully since 1956. They participated in the construction of, produced fuel elements for, and are operating a 40 MW heavy water moderated test reactor of considerable complexity. On the basis of these observations, the group concluded that "India has the technical capability (with appropriate specialized training for personnel) to safely and effectively operate a nuclear plant, to

provide construction labor and all but the highest levels of construction supervision. Under present conditions, design, procurement and erection of a nuclear plant should be the responsibility of a competent U.S. firm with undivided authority.

With respect to the reactors themselves, we have the utmost confidence in the ability of United States industry to successfully build and put into operation reactors of the type which are contemplated in the Tarapur Project. Following some initial difficulties, the Dresden reactor, to which the two Tarapur reactors will be quite similar, has operated since June, 1961, without significant incident, with a reactor availability of over 95% except for periods of inspection and refueling. Two inspections of the control rod drives, undertaken at AEC request during this period, have disclosed no recurrence of the early problem. Continuing surveillance of control rod drive performance by Commonwealth Edison, as periodically checked by AEC, has also revealed no recurrence of the original difficulty. I feel sure that the American manufacturer will regard it as its obligation to turn the reactors over to the Indian operators only after any initial operating difficulties have been overcome and the reactors have demonstrated their ability to be operated safely. The manufacturer would also undertake thorough training and qualification testing of the initial Indian operating group.

We believe you would also be interested in knowing that the installed capacity of the grid on which the Tarapur reactors will be located will be 2245 MW by 1967, including 380 MW from the Tarapur station. Thus, each 190 MW Tarapur reactor will be only approximately 8½% of the total capacity of the system.

There is one further factual matter on which I should like to provide some clarification. The Indian proposal has been that the United States make a dollar-repayable loan from the Agency for International Development covering the foreign exchange costs of the reactors, estimated at approximately \$78 million, and make the fuel inventory available on deferred payment terms. Their proposal is under review. India would pay, on a current basis, the replacement fuel costs of about \$3.2 million per year. India has not requested any United States financial support for the local costs of this project. The United States Embassy in India has suggested that consideration be given to the use of rupee loans from surplus agricultural sales proceeds to finance the local currency costs on the basis of experience which

has demonstrated that the psychological impact of development projects is considerably enhanced when there has been full funding by the United States. No conclusions have been reached, however, with respect to this possibility and no mention of it has been made to the Indian Government.

I greatly appreciate the support which you have always shown for our program of foreign cooperation. In view of the importance which the Government of India attaches to this project and their desire to proceed with it rapidly to meet the urgent need for power in the Bombay area, we would be most happy to meet with you in an effort to answer any questions which you may have after you have had an opportunity to review this letter.

Sincerely,

(Signed) Glenn T. Seaborg

Chairman

Honorable John O. Pastore
Chairman, Joint Committee
on Atomic Energy
Congress of the United States

DO FILE
CHET WOODFIELD, CALIF.
VICE CHAIRMAN
MELVIN PRICE, ILL.
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ON, N. MEK.
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IOWA
VT.
UTAH
NEBR.
EXECUTIVE DIRECTOR

Congress of the United States

JOINT COMMITTEE ON ATOMIC ENERGY

February 19, 1963

838 2/20/63

Dear Dr. Seaborg:

UNCL. BY DOE
NOV 86

I have your letter of February 8, 1963 with regard to the U. S. policy toward the International Atomic Energy Agency. As I understand from your letter, and from the Department of State letter of January 22, which you referenced, it is the policy of the United States to make a determined effort to transfer safeguard arrangements as soon as possible to the International Atomic Energy Agency and get all new bilateral partners to accept Agency safeguards.

In view of this policy, I cannot understand why the United States is not more forceful in negotiating with the Indian Government on the Tarapur reactor case. It would seem to me that any proposed agreement for cooperation with India should contain a provision requiring the Indians to permit inspection by the IAEA once such a system has been set up. I do not believe that a provision calling for "sympathetic consideration to the application of Agency safeguards" or similar pussy-footing on our part will further the stated United States' policy.

I am at a loss to understand how we can expect other nations to come around to our policy when we fail to adhere to it in our negotiations with the Indians for a new bilateral agreement. Now is the time to set a precedent when we are being asked to finance, through A. I. D. and other arrangements, the Indian project amounting to over \$100,000,000. (It is my understanding that consideration is being given to furnishing approximately \$70,000,000 through A. I. D. and approximately \$30,000,000 for civil construction through U. S. counterpart funds.)

Separate and distinct from the safeguards problem, there is another important factor which I believe should be considered in connection with the proposed Tarapur project. Despite the efforts of our very best reactor experts, construction firms, and reactor operating specialists we have experienced numerous problems in the construction and operation of our large scale power reactors. When one considers the remote area, the difficulties to be encountered in utilizing local construction

Honorable Glenn T. Seaborg
Chairman
U. S. Atomic Energy Commission

Hon. Glenn T. Seaborg

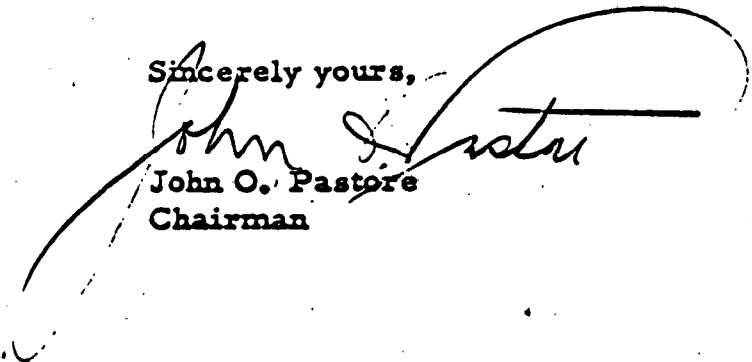
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personnel and the generally less experienced nuclear reactor operators in India, it is questionable whether the construction of such a large full scale power reactor in India should be undertaken at this time. I don't believe we should encourage a nation to become involved in a project which it may not be technically competent to support. Instead of expected gratitude, in the event of technical difficulties, the United States may find itself in the long run subject to severe criticism by this same Government.

While I am in strong support of the "Atoms For Peace" program and for assisting foreign nations in the peaceful use of atomic energy, I believe premature and ill-advised projects can adversely affect not only our "Atoms For Peace" program but the United States prestige in the eyes of the world.

I am sending a copy of this letter to the Secretary of State so that the Department may have my views in this matter.

Sincerely yours,



John O. Pastore
Chairman

cc: Secretary of State

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Saturday, March 2, 1963 - D.C.

I worked in the office for about an hour. I sent letters to Petrosyants, Kuznetsov and Emelyanov accepting their invitation to visit Russia. I suggested this visit should take place the latter part of May or June.

I then went to the Statler Hotel where I served as a judge at the 22nd Annual Westinghouse Science Talent Search. The 40 participants' exhibits were displayed in the Presidential Ballroom. Other judges were Harold Edgerton, Alan Goldman, Russell Johnson, Stanley Korenman, and Arthur Maldmon.

We tentatively picked five winners: first, Sylvain Cappell, Bronx High School of Science, New York (mathematics); second, Arthur Shapiro, Central High School Philadelphia (butterfly breeding); third, Mark Weiss, Coral Gables High School (biological); fourth, Gary Wegner, Bothell High School, Bothell, Washington (astronomy); and fifth, Alan Campbell, Roger Ludlow High School, Fairfield, Connecticut (psychology).

Sunday, March 3, 1963 - Washington - Chicago - Washington

Accompanied by Vic Schmidt, I flew to Chicago on United flight 721 which left at 3:30 p.m. and arrived at 4:15 p.m.

At 8 p.m. I addressed the 18th National Conference on Higher Education in the Terrace Casino of the Morrison Hotel, sponsored by the Association for Higher Education. My speech, "Education for the Third Revolution," was well received by a large crowd. I was introduced by Professor Leland Medskar, Vice Chairman, Center for the Study of Higher Education, University of California, Berkeley, President of the Association, and a friend of mine. (Congressman Barrett O'Hara of Illinois later inserted my speech in the Congressional Record.)

We flew back to Washington on American flight 692, which left at 10:15 p.m. and arrived at 1:40 a.m. (March 4th).

Monday, March 4, 1963 - D.C.

I met with Jerry Tape to try to convince him to replace Haworth as a commissioner. I called Rabi and Ralph Halford (Chairman of the Board, AUI) to obtain their approval, which they gave.

Tape, Haworth and I had lunch at the Roger Smith Hotel.

Commissioners Haworth, Ramey and I, Wells, Luedecke and others met with Dr. Homi Bhabha (Chairman, Indian AEC), M. N. Chakravarti (Project Administrator, Tarapur Reactor), Sarukkai Jagannathan (member, Indian AEC) Aaron Ghosh (First Secretary, Indian Embassy), Maheshwar Dayal (Physicist, Tarapur) and Malur Ramaswamy Srinivasan (nuclear engineer, Tarapur) to tell them that the U.S. will insist on IAEA safeguards for the Tarapur Reactor.

I phoned Cornelius Tobias (University of California), James Taub (Los Alamos), Louis Rosen (Los Alamos), and James Rainwater (Columbia University) to inform them that they are the recipients of the 1963 Lawrence Awards. (The fifth winner is Herbert Kouts of Brookhaven.)

At 2:10 p.m. I presided over Information Meeting 251 (notes attached). We discussed Bundy's February 27th letter (copy attached) regarding Executive Order 10964 and Secretary of Defense, Robert McNamara's letter of February 27th regarding NSAM 222--security aspects of using submarine in multilateral force.

March 4, 1963

COPY NO. 213INFORMATION MEETING 2512:10 p.m., Monday, March 4, 1963 - Chairman's Conference Room, D.C. Office1. Visit to Coal Mining Facilities (see National Coal Association Letter of February 12)

None of the Commissioners will be able to attend. The Chairman requested appropriate participation by the General Manager's staff. (GM/Secy)

2. N.S.SAVANNAH Schedule and Public Hearing

The Chairman noted the Commissioners and staff will meet with Mr. Alexander, Maritime Administrator, and Mr. Robb on Friday, March 8, to discuss the February 6 ACRS report and schedule for the N.S.SAVANNAH. Mr. Price summarized the proposed schedule for port visits of the SAVANNAH this spring including departure for Europe in June and the resumption of that schedule to the forthcoming ACRS meeting to discuss the SAVANNAH and to the possibility of a public Hearing this spring. The Commissioners requested further consideration looking to a public Hearing prior to the N.S.SAVANNAH's departure for Europe and said this matter should be discussed with Mr. Alexander on Friday. (GM/DR)

3. Procedure for Review of ACRS Reports

Mr. Price described briefly the existing procedure for Commission review of the Committee's letter reports noting that regulatory staff is normally in attendance at the Saturday meetings of the Committee and is given an opportunity to see the Committee's letters in draft prior to their transmittal to the Commission. Upon delivery to the Commission the letters are circulated immediately by the Secretary to the Commissioners and staff for information and quick review prior to transmittal to the Joint Committee in a matter of four or five days after which they are released to the Office of Public Information. Mr. Price suggested that additional staff attention to matters requiring amplification or clarification and the Commissioners requested:

- a. Notification during staff review of the draft letters if there are matters which require clarification prior to transmittal to the Commission.
- b. Staff review of ACRS letters on receipt to flag any matters requiring ACRS clarification and notice to the Commission prior to public release of the reports.

(GM/DR)

4. Release of NTS Pictures for use by ACDA in VELA Hearings

The General Manager reported the request from ACDA, said he had obtained clearance from Mr. Bundy's office and released the pictures for use in the Hearings.

5. Mr. Ramey's February 28 Memorandum subj: Dockets Nos 22 and 23 - Consolidated - JAMES C. HOEBS, FINDINGS OF FACT, DETERMINATION AND STATEMENT OF REASONS

Noted.

6. Commissioner's Meeting with Messrs. Webb and Seamans 2:30 p.m. Monday, March 11 to Discuss ROVER Program

7. Draft Letter to Senator Pastore re ROVER Tests

The Chairman suggested the Commissioners review the draft letter and Mr. Ramey's memorandum.

✓ 8. March 2 Letter from Alexis Johnson, Department of State re Christmas Island *attached w/lt to Johnson on 2/20*

The Chairman said no Department of State comments will be forthcoming at the moment and that White House staff will shortly transmit a letter to the Commission requesting further information.

✓ 9. Mr. Bundy's February 27 Letter re Executive Order 10964

The Chairman noted Mr. Bundy's letter denying AEC exemption from the provisions of EO 10964. The General Manager said staff will review the effect of this action. (Marshall) *attached*

✓ 10. Secretary of Defense February 27 Letter re NSAM 222

The Chairman suggested the Commissioners might wish to read Admiral Rickover's memorandum which is in the Chairman's office. *attached*

Dr. Haworth left the meeting.

11. Lawrence Award Nominees for 1963

The Chairman noted a letter from Mr. Bundy informing him of the President's approval. (Secy)

12. Terminal Date for Operation DOMINIC

The Chairman noted Secretary Gilpatric's request that Operation DOMINIC be terminated as of March 1 with operations transferred to DASA, and his affirmative response.

13. General Manager's Report on Labor Situation at NTS

14. Status of Private Ownership Legislation

Mr. Hennessey reported that Mr. Schuldt, BOB, will meet with Commission and staff Tuesday or Wednesday to discuss BOB and other agency comments on the legislation. Mr. Ramey requested consideration of a position on proposals for toll enrichment of uranium from other countries for use in the U.S. (Fine)

PRESENT

Dr. Seaborg	General Luedcke
Dr. Haworth*	Mr. Hollingsworth
Mr. Ramey	Mr. Hennessey
	Mr. Brown
	Mr. Price*
	Mr. Beck*
	Mr. McCool

DISTRIBUTION

Commissioners
General Manager
General Counsel
Secretary

* Partial attendance

W. B. McCool
Secretary

THE WHITE HOUSE

WASHINGTON

February 27, 1963

UNCL. BY DOE
NOV 86

238 3/2/63

Dear Dr. Seaborg:

Your letter of June 9, 1962 and a copy of your letter to Mr. Bell dated September 19, 1961 concerning Executive Order 10964 have been reviewed and discussed with the Attorney General.

The issuance of EO 10964 was preceded by extensive study of an interdepartmental group concerning implementation of EO 10501 which indicated that most of the principal government agencies were unable to comply with the original provisions of the Order that called for a continuing review of classified material for the purpose of downgrading and declassification. Since both the Department of Defense and the Department of State, which together originate the greater part of all government classified material, suggested the adoption of an automatic downgrading and declassification system, the procedures suggested to accomplish this objective reflected to a large extent the views of those two agencies as a means of eliminating the need for individual reviews of each document.

The Atomic Energy Commission had representation on the group which studied the difficulty encountered by some departments in complying with the provisions of EO 10501 which required a continuing review of classified material and was kept fully advised regarding the developments throughout the entire consideration of the automatic downgrading and declassification proposal.

During the discussions it was made clear that the proposed change was intended as a supplement to, and not a substitute for, the downgrading and declassification procedures prescribed in Subsection 4(a) of the original Order.

Your reservations regarding the automatic downgrading and declassification procedures again received consideration just prior to the recommendation of the Bureau of the Budget to issue EO 10964. At that time the Bureau of the Budget stated that AEC was the only agency among 36 replying to their request for comments which perceived any possible risk to the national security in the provisions of the proposed order. It is noted that USIA expressed a view similar to AEC in commenting to the Bureau of the Budget which indicated the system contemplated by the proposed order would not achieve the desired result. The Bureau of the Budget decided however that the views of these two agencies should not be regarded as controlling and submitted the Executive Order which was approved and issued on September 20, 1961.

In view of the above it is believed no revision of the Executive Order should be considered until some experience has been acquired under the automatic downgrading and declassification procedures. An exemption from the provisions of EO 10964 for the AEC would make it extremely difficult to achieve maximum practical uniformity among departments and agencies of the Executive Branch to implement EO 10964.

Sincerely,



McGeorge Bundy

Honorable Glenn T. Seaborg
Chairman
Atomic Energy Commission
Washington 25, D. C.

OFFICE DIARY 1
GLENN T. SEABERG
Chr USAEC, 1981-72
FOLDER-PAGE 27019
238 2/28/63

3/4/63

NOT DECLASSIFIABLE

DOCUMENT TITLE Memorandum For The President From
Sec. Def. McNamara, 2/27/63. "Security
Aspects of Using Submarines . . ."
0901718

This document has been determined to be NOT DECLASSIFIABLE and has been removed from this folder.

W. French
Name

11/30/87
Date

Reference Ltr. OASD Bodling to DOE, OC Gilbert dated 2/25/87

226

027019-027020

3/4/63

NOT DECLASSIFIABLE

DOCUMENT TITLE . . . Memorandum No. 222 From The President
To Sec. Def. and Sec. State dated 2/20/63
"Security Aspects of Using Submarines . . ."
090/119

This document has been determined to be NOT DECLASSIFIABLE and has been removed from this folder.

W. French
Name

11/30/87
Date

Reference Ltr. OASD Bodling To DOE, OC Gilbert dated 2/25/87

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027021

Bundy called and said they have received my letter asking whether the President plans to set a date in 1964 for the test series in the Pacific and possible use of Christmas Island for the proposed test series. Before the President initials a directive on this, he wants technical advice from the AEC on Christmas Island. Bundy is now drafting a memorandum to me in which he asks whether it might not be better next time to omit Christmas Island in our planning. He said in a sense that this is a political question as to whether we should be hard or soft, and a technical assessment is needed. I told him what we need is a decision; that we could probably use Johnston Island if it were decided to give up Christmas Island. Bundy asked if this would be hard on us, and I said I thought it can be worked out all right. However, I pointed out that there aren't many islands in this group with runways big enough for us to use.

Tuesday, March 5, 1963 - D.C.

I had breakfast with Senator Pastore at the new Senate Office Building. We discussed a number of items. First, I discussed our meeting with members of the AIF to learn the results of their recent survey conducted with respect to the AEC's nuclear civilian power report. The results were generally favorable. I said the thing that impressed me most was the vote of 55 to 0 in favor of the Commission's stand on private ownership. I went on to explain, at the Senator's request, the meaning of toll enrichment, pointing out that it should be called either an enrichment service or a barter arrangement.

I described our meeting yesterday with Bhabha and associates on the Tarapur reactor. I told Senator Pastore we had made it quite clear that the IAEA safeguards should be accepted in principle. I told him that, in balance, his letter, which was publicized (Washington Post story attached), has been helpful. Even though it is unfortunate to have revealed our "fallback" position, I don't think this has created any particular impression on Bhabha. Senator Pastore expressed regret that the letter was published and is a mistake; but he said that, on the basis of my explanations now, he is convinced that India does have the technical capability to carry on this project.

We discussed the overall energy study which has been requested by the President, and Pastore said he agrees that this is a desirable thing to do.

I commented on the favorable impression that his fair manner of handling the Joint Committee hearings has created on many people--members of the Commission and staff, members of the White House, and others.

I told him I think we have reached agreement with Navy Secretary Korth regarding Admiral Rickover's future. We will work out something satisfactory to Rickover, and that it will not be necessary to have legislation on this matter. Pastore said he agrees there need not be legislation in the event things move along rapidly. In order to forestall any action Jackson might have in the mill, he suggested I call Senator Jackson and tell him that this is my impression .

I again invited Pastore to accompany me on the Soviet trip. He pointed out my going as a scientist might be of such great advantage that all political aspects should be downgraded, and perhaps, I should not have a politician accompany me. I said I will think about this and will consider it in the course of my decisions on those who will accompany me.

I discussed the possibility of having another Executive Session to bring the JCAE up to date on matters in an informal manner as we did last month. He suggested we

Pastore Assails Aid to India on A-Power Plant

By Howard Simons
Staff Reporter

Sen. John O. Pastore (D-R.I.), Chairman of the congressional Joint Committee on Atomic Energy, cast doubt yesterday on the practicality of the United States' helping India to build a large atomic power plant.

Pastore's position, which was also critical of the Administration's handling of negotiations over the reactor purchase, was stated in a letter sent Tuesday to Atomic Energy Commission Chairman Glen T. Seaborg. The letter came to light yesterday when the Joint Committee's hearings on the state of the Nation's atomic energy program.

Pastore's criticism of the Administration's negotiations on the Tarapur reactor was directed specifically at the kind of safeguards the United States is insisting that the Indians accept to prevent the diversion of nuclear material to weapons production—inspections by the United States alone.

Pastore said he wants the Administration to insist that the Indians permit "inspection by the International Atomic Energy Agency once such a system has been set up."

For its part, although the Administration has paid lip service to inspection by the IAEA for new reactors, in the case of India it has demurred and, for the present at least, made it known that India would be required only to give "sympathetic consideration to the application of Agency safeguards."

One reason for the Administration's attitude, which Pastore characterized as "pussy-footing," is the understanding that the Indians do not favor IAEA controls and might go elsewhere to buy the reactor if the United States push too hard for such inspection.

Pastore noted further that while he is a strong supporter of the U. S. "Atoms for Peace" program to assist other nations, he believed that "prematuure and ill-advised" projects can hurt not only "Atoms for Peace," but U. S. prestige.

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Sees Time for Precedent

"I am at a loss," Pastore told Seaborg, "to understand how we can expect other nations to come around to our policy when we fail to adhere to it in our negotiations with the Indians for a new bilateral agreement. Now is the time to set a precedent when we are being asked to finance, through AID (Agency for International Development) and other arrangements, the Indian project amounting to over \$100,000,000."

Other proponents of IAEA safeguards, most notably former Joint Committee Chairman and IAEA Director General Sterling Cole, have said that U. S. failure to insist upon IAEA safeguards for the Indian reactor would mean the beginning of the end for the international agency.

For the most part, the hearings yesterday were directed at attempts by Committee members to ascertain whether the Administration has endorsed the AEC's special Nov. 20 report to the President on the future direction that the U. S. civilian nuclear power program should take.

Of particular concern was testimony by presidential science adviser Jerome B. Wiesner reporting that President Kennedy "has now directed that a comprehensive interdepartmental study be undertaken of the development and utilization of our total energy resources, in order to arrive at a judgment as to the most effective allocation of our research and development efforts."

Concern Is Expressed

Rep. Chet Holifield (D-Calif.) expressing the Committee's concern over the fate of the nuclear power program, said that in his experience the "way to kill a program is to study it to death."

Holifield dramatized this by stacking almost three feet of previous energy studies in front of him while question-

ing Wiesner. However, Wiesner's assurances that the Administration had no intention of killing or even seriously injuring the Nation's atomic power program seemed to mitigate the Committee's skepticism.

Seaborg told the Committee that 1962-1963 "is to be reckoned a milestone in the development of civilian nuclear power" because in this year it "seems to have 'gone critical,' in that it has taken a sudden spurt forward."

consider doing this after the second half of the 202 hearings in order to feature discussions of these.

He told me that he is having a meeting with the President on Friday morning, March 8th. He felt that the President would want to discuss the test ban, and perhaps the status of the Multilateral Force. He gave indication that he sees some value in the test ban and said that perhaps the JCAE should have a public hearing on the subject where several people could point out the positive aspects of such a test ban. He said, however, that he thinks perhaps the n-th country problem is overemphasized because once the Chinese have the nuclear weapon, whether or not the other smaller countries have it, will be of minor significance. He pointed out, however, these still might be focal points for starting disturbances, and particularly, even though the countries are small, if they are irresponsible they could be the source of precipitation of hostilities.

With respect to the Multilateral Force, he has some difficulty with the practicality of mixed nationality manning. He used the example of an isolated ship 1,000 miles offshore receiving an order from an officer of some nationality which might not be honored by the other nationalities on board during the heat of actual impending hostilities. However, he rather liked the idea of a control body with representatives of the various nationalities on it. I reiterated for him that the present plan is to use surface ships and not nuclear submarines. I reminded him that Palfrey, and more recently Crowson, backed up by a strong technical team, are accompanying Merchant and that I feel there is sufficient technical knowledge available.

At 10:30 a.m. the Commission met with William Warne (Director), Alfred Golze (Chief Engineer) and Maurice Andrews of the Department of Water Resources, California Resources Agency, to discuss the possible use of nuclear power to pump water over the Tehachapi for the California Water Project. This looks like an excellent use for nuclear power.

At 11:30 a.m. the Commission was briefed by Martin people (R. D. Bennett, Vice President and General Manager), J. G. Morse (Manager, Auxiliary Power System), D. G. Harvey (Program Manager, Terrestrial Systems), and E. T. O'Sullivan, on the SNAP systems.

I had lunch with John Miller (Executive Secretary, National Planning Association) at the University Club to discuss the Center for Priority Analysis, whose advisory committee I am on.

I received a letter from Bundy (copy attached) in response to my letter of February 21st to the President, requesting more information on the need for obtaining Christmas Island and the extent of preparations needed. It also said that the President doesn't wish to give explicit approval to the startup date of June 1, 1964, for atmospheric testing but suggested that the AEC proceed with good judgment on prudent future planning.

The other Commissioners and I hosted a reception for Dr. Homi Bhabha and his group at the Metropolitan Club.

Wednesday, March 6, 1963 - Germantown

I met with J. E. Travis (Manager, Richland AEC Operations Office), Luedecke, Bloch, Quinn and others to discuss questions which will be raised at the Richland breakfast meeting with the Tri-City Nuclear Council on March 15th. It looks as though it will be difficult to respond positively to their requests for the cooperative use of the Hanford plant by industries. I also called Senator Jackson

THE WHITE HOUSE
WASHINGTON

UNCL. BY DOE
NOV 86

March 5, 1963

9528 3/5/63

Dear Glenn:

As I said on the telephone, the President is not prepared to give formal authority for a test readiness planning date, as requested in your letter of February 21, but he does wish you to proceed on your own best judgment with prudent forward planning for possible future tests. Meanwhile, he would like some additional information that would permit us to focus on the alternatives available to us in regard to nuclear testing in the atmosphere.

The President would like to have your views, those of the Secretaries of State and Defense, and those of the Arms Control and Disarmament Agency, as appropriate, with respect to the following:

1. There are reasons for not concluding a new agreement with the UK at this time for use of Christmas Island. Even assuming that such an agreement can be successfully concluded in the near future, there will remain some uncertainty as to our freedom actually to conduct tests at Christmas Island at times of our own choosing. In view of these factors, we need to know what limitations would be placed on the results to be gained from our testing program if we planned the next atmospheric test series using only Johnston Island and airborne and shipborne testing.
2. What are the implications of a possible Test Ban Treaty or of continued Treaty negotiations with respect to the type of preparations we should make and facilities we should maintain in reserve and the degree of visibility that our state of readiness should have? To put it another way, how much of our preparation can be at a noise level which does not interfere with such negotiations?
3. In the event that Christmas Island is available to us on desirable terms, would the airborne testing capability now

under development become superfluous, or is there an independent need for alternative methods?

4. With respect to your specific proposals there are certain questions of interest primarily to the Bureau of the Budget:

a. How much will be needed to finance "advanced base preparations and similar long lead time test support activities" you referred to. What would be the source of these monies in FY 63 and FY 64?

b. What specific preparations and activities are contemplated and on what schedule, assuming a June 1, 1964 readiness date for the resumption of AEC testing?

c. Does AEC or DOD contemplate any improvement work on Johnston Island as well as Christmas Island?

Sincerely,



McGeorge Bundy

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

cc: The Secretary of State
The Secretary of Defense

to discuss this with him. Jackson said, after our trip, he thinks maybe we should organize an informal task force to see what possible use can be made of the setup out there. Such a group will consist of someone from G.E., AEC, Defense and NASA and some people from industry. Jackson said he heard that AEC has asked NASA to look into the use of Oak Ridge. I said the only reason for looking into Oak Ridge is that it has a very good materials research program which we feel should be at the disposal of other agencies who might wish to use the facilities. I said we can do the same thing for Hanford by having them make out a list and put it at the disposal of Webb. Jackson said he thinks it will be a good idea for him to meet with Bloch and Slayton before the trip so he will be in a position to say that he has met with them and they are working on the problem.

I had lunch with Charter Heslep to discuss the difficulties between Columbia University scientists and those at the University of Chicago regarding the celebration of the 20th anniversary of the first pile and plans to build a Fermi memorial. The Columbia people believe Chicago stole credit from them.

At 2 p.m. I presided over Information Meeting 252 (notes attached). We noted Bundy's March 5th letter (copy attached) in response to our February 21st letter about a production objective for plutonium and tritium. We approved a letter to Secretary Udall (copy attached) regarding siting of large reactors in reply to his letter of February 18, 1963, to BOB Director Kermit Gordon (copy attached).

At 3:40 p.m. I presided over Commission Meeting 1915 (action summary attached). The Commission discussed the question of a community for the Nevada Test Site. Private land speculators (like Bell and Swink of the Crystal Springs area) claim they can build a community without government aid (which they probably can't do) and their claims will make it difficult to get the necessary legislation needed to secure the government funds to contribute to a community at the preferred Aurora site.

As guests of Jim and Alice Robinson, Helen and I attended a reception given by the American Land Title Association at the Statler Hotel.

I sent a memorandum (copy attached) to Lee White in response to his request and identified subject matter which the President might wish to mention to Senator Pastore during their Friday morning meeting.

Thursday, March 7, 1963 - Germantown

From 9:30 a.m. to 12:30 p.m. the Commission was briefed on thermionic work by Rankin and Bowman of Los Alamos, Perry and Pidd of General Atomic and Fink, Miller and Volney Wilson of General Electric.

I received a telegram (copy attached) from Senator Howard Cannon of Nevada, concerning the meeting of AEC-labor-contractor representatives in the labor dispute wherein he protested the role of the Nevada Test and Space Site Construction Labor Board as arbiters. I sent him a reply (copy attached) emphasizing that the AEC will use the Board and explained the errors in his telegram.

The Commissioners hosted a luncheon for Dr. Bhabha, Jagannathan and Chakravarti in the Dining Room. The Indians are now, in principle, attempting to circumvent the agreement for the application of IAEA safeguards to the U.S.-aided Tarapur Reactor. I said that the U.S. will insist on our position.

I wrote to President Kennedy (copy attached) recommending Gerald Tape as a replacement for Lee Haworth. (Tape phoned me this morning saying he will accept.)



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

UNCL. BY DOE
NOV 86

COPY NO. 35

March 6, 1963

INFORMATION MEETING 252

2:00 p.m. Wednesday, March 6, 1963 - Chairman's Conference Room A-457

1. Letter from Mr. Alexander, Maritime Administrator to Foreign Ministries of Transport re N.S.SAVANNAH Visits

Noted as in circulation for Commissioner's information.

2. March 5 Letter from Mr. Bundy re Plutonium and Tritium Production *attached*

The Chairman noted Mr. Bundy's letter and the requested reporting date. The Chairman reiterated his request for the study to contain consideration of planned production of plutonium-238 and curium-244 and the General Manager said he wished to discuss the latter with the Commissioners prior to the Commissioner's visit to Hanford next week. (Baranowski)

3. March 5 Letter from Mr. Bundy re Test Readiness *attached 2/27/63*

The Chairman said Dr. Haworth and the General Manager will prepare a reply for early transmittal.

4. Letter to Secretary Udall re Siting of Large Reactors

The Chairman noted BOB Director Gordon had suggested AEC proceed with the response. (GM/DR) *attached*

5. Telegram from Gordon Freeman, International Brotherhood of Electrical Workers re NTS Walkout

Noted.

6. Dr. Creve's Report on High Flux Soviet Reactor

The Chairman said he would consider desirability of transmittal to BOB. (Henderson)

7. Chairman's Discussion with Senator Jackson re Visit to Hanford March 15

The Chairman noted Senator Jackson may wish to discuss with appropriate AEC staff the Tri-City Industrial Council request for use of AEC facilities. (Bloch)

.. The Chairman said he would appreciate Mr. Ramey's comments on the material prepared for their use in the meeting with the Tri-City representatives.

8. Meetings with Dr. Norris Bradbury

9. Letter to Senator Pastore re Revised Schedule for the KIWI-B Tests

The Chairman noted he would sign the revised letter. (Henderson)

10. Senator Anderson's Draft Statement on the ROVER Schedule

Mr. Ink noted the Senator's statement is in for review.

11. Letter to White House re STORAX III

The Chairman requested information on the status. (GM)

12. Commissioners' Meeting this Morning with Ad Hoc Committee to Study Use of Large Nuclear Reactors for Desalination Program

Dr. Wilson and Mr. Ramey discussed briefly their participation in the meeting this morning and said among other things the problems of (a) Mexico's dispute with the U.S. re Colorado River Water, (b) the forthcoming Supreme Court ruling on the Arizona-California dispute re Colorado River, (c) scheduled construction of the California aqueduct, were mentioned in relationship to the possible need for large nuclear plants for this program.

13. MIC Visit to Rocky Flats, LRL, Los Alamos, etc

The General Manager noted the invitation to the Commissioners to accompany the Committee and the Chairman said Commissioners would respond to letter of invitation. (Brown/Secy)

14. Secretary of Defense February 25 Letter to Secretary of State re Provision of SARGENT and PERSHING Battalions to the Federal Republic of Germany

The General Manager reported the matter is in staff review.

15. Chairman's March 5 Meeting with Senator Pastore

The Chairman reported briefly on his meeting yesterday with the Chairman of the Joint Committee. It was agreed that it would be desirable to schedule a Joint Committee-Commission Executive Session meeting shortly after the 202 Hearings. (Ink)

PRESENT

Dr. Seaborg General Luedecke
Dr. Wilson Mr. Ink
Mr. Ramey Mr. Hennessey
 Mr. Henderson
 Mr. McCool

DISTRIBUTION

Commissioners
General Manager
General Counsel
Secretary

W. B. McCool
Secretary

THE WHITE HOUSE

WASHINGTON

March 5, 1963

Dear Glenn:

UNCL. BY DOE
NOV 86

I am writing in reply to your letter of February 21 regarding the timing of AEC's work on the 1972 production objective for plutonium and tritium called for by the President's letter of February 2.

It is clear to all concerned, I believe, that final consideration and approval of 1972 production objectives for plutonium and tritium cannot take place until the President is in a position to make decisions on the outstanding questions related to tactical and anti-submarine nuclear weapons which are now under study. However, we should try to identify as soon as possible the nature and dimensions of the plutonium and tritium production problems, including non-weapons requirements in order to expedite final decisions on total plutonium and tritium production objectives when Defense is in a position to make specific recommendations on weapons requirements. Accordingly, it is desired that AEC present, hopefully by May 1 but no later than June 1, preliminary plutonium and tritium production projections, covering alternative production cases, similar to those prepared last summer for enriched uranium.

With respect to weapons requirements, these projections should be based on a range of assumed alternatives, with a case corresponding generally to an extension of the informal projections through 1967 developed by Defense last fall (adjusted for the Skybolt and other decisions made since that time), and with alternative cases sufficiently higher and lower to bracket the likely range within which the eventual decision on weapons requirements will fall.

Sincerely,



McGeorge Bundy

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

cc: Secretary of State
Secretary of Defense
Director, Bureau of the Budget

237

March 8, 1963

Dear Stu:

UNCL. BY DOE
NOV 86

The Bureau of the Budget has forwarded to my office a copy of your letter to Kermit Gordon, dated February 19, 1963, expressing the thought that perhaps a procedure should be developed whereby the Department of the Interior might participate in some appropriate way in the selection of sites for civilian nuclear electric power plants.

In view of the implications raised by your letter I feel it is important that we get together soon to exchange thoughts. I will be in touch with your office to see if we can find an early convenient date.

Cordially,

(Signed) Glenn T. Seaborg

Glenn T. Seaborg

Honorable Stewart L. Udall
The Secretary
Department of the Interior
Washington 25, D. C.



THE SECRETARY OF THE INTERIOR
WASHINGTON

February 18, 1963

UNCL. BY DOE
NOV 86

9558 2/21/63

Dear Mr. Gordon:

The Atomic Energy Commission has before it two proposed atomic power plants on the California coast, one at Bodega Bay the other at Camp Pendleton near Oceanside.

These proposed installations have a bearing on fisheries and to some extent on the conservation responsibilities of this Department along the coast--including the new Point Reyes National Seashore. The Bodega site lies very close to the San Andreas (Earthquake) fault line and thus raises major questions regarding the long-term safety of that site for any major nuclear reactor. It is quite conceivable that other atomic plants will have an equally important relation to the conservation efforts of this Department.

It seems to me, therefore, we should set up a procedure for the Interior Department to have an opportunity to review and express its views regarding proposals such as Bodega Head in Sonoma County.

Sincerely,

Stewart L. Udall
Secretary of the Interior

Hon. Kermit Gordon, Director
Bureau of the Budget
Washington 25, D. C.

UNITED STATES GOVERNMENT

Memorandum

UNCL. BY DOE
NOV 86

TO : A. R. Luedecke, General Manager

DATE: March 6, 1963

Approved A.R. Luedecke

FROM : W. B. McCool, *W. B. McCool*
Secretary

A. R. Luedecke

Date 3/2/63

SUBJECT: ACTION SUMMARY OF MEETING 1915, WEDNESDAY, MARCH 6, 1963, 3:40 P.M.,
ROOM A-410, GERMANTOWN, MARYLAND

SECY: JCH

Commission Business

1. Minutes of Meetings 1897, 1905, 1907, 1909, and the Minutes of the 139th AEC-MLC Conference

Approved, as revised, subject to comments by Commissioners Haworth, Ramey, and Palfrey.

2. AEC 25/246 - Proposed Safety Rules

Approved. (Betts)

3. AEC 25/247 - Proposed Safety Rules

Approved. (Betts)

4. AEC 25/248 - Proposed Safety Rules

Approved. (Betts)

5. AEC 25/249 - Proposed Safety Rules

Approved. (Betts)

6. AEC 25/250 - Proposed Safety Rules

Approved. (Betts)

7. AEC 770/9 - Proposed Extension of Contract with Combustion Engineering, Inc.

Approved. (Vinciguerra)

8. AEC 1123/3 - Nevada Test Site Community and
AEC 1123/4 - Proposed Legislation to Provide a Community
for Nevada Test Site

Discussed.

The Commission requested further consideration at an early date following staff review of the proposed legislation and appropriate revisions in the proposed letter to Mr. Bell. (Bloch)

cc:
Commissioners

March 6, 1963

UNCL. BY DOE
NOV 86

MEMORANDUM FOR: Lee C. White
Assistant Special Counsel
to the President

Lee,

In anticipation of the President's meeting with Senator Pastore on Friday morning, and in response to your request, I shall identify subject matter which the President might wish to mention to the Senator or which might arise in the course of their conversations. Some of these matters were covered in my breakfast meeting Tuesday morning with the Senator, which I mentioned to you during our telephone conversation yesterday.

1. Mixed, Multi-National Manning of NATO Forces

Senator Pastore expressed sympathy with the concept now being advanced by Ambassador Merchant, but expressed some doubt as to its practicality and workability. He also has reservations about the technical competence of some of the national forces which would be drawn upon to fill out a multi-national crew. By the way, one of the things which bothered the Joint Committee and Senator Pastore initially was the fear that the Merchant team was not adequately staffed with people technically competent in the nuclear weapons area. I pointed out to the Senator that I had had two telephone conversations with Commissioner Palfrey, who is in Paris representing the AEC in the back-up staff to the Merchant team, and that Mr. Palfrey had pointed out that he and the team had readily available two outstanding experts - namely,

Colonel Sam Goldenberg, formerly a member of the staff of the AEC's Division of Military Applications; and Mr. Harold Agnew, formerly of the Los Alamos Scientific Laboratory, and now Scientific Advisor to SACMIL. In addition, the back-up staff was recently supplemented by Colonel Crowson, Deputy Director of the AEC's Division of Military Applications, and Commissioner Palfrey and I feel that there is adequate technical back-up available to the team. (By the way, the President recently approved for submission to the Senate Colonel Crowson's promotion to the rank of Brigadier General, USAF.)

2. Nuclear Test Ban

The Senator volunteered that he was also sympathetic toward attempts to achieve a workable test ban agreement, but feels the "Nth" country argument has been over-emphasized. He feels that once Red China develops a nuclear weapons capability, the subsequent acquisition of nuclear weapons by smaller countries is, insofar as our own security is concerned, of relatively little importance. I pointed out, however, that while a nuclear-armed Red China could represent a greater danger to our national security, the possession of nuclear weapons by impetuous or irresponsible smaller countries could serve as a "fuse" for a larger conflagration. The Senator conceded this was a risk. The main point here is that he, too, apparently recognizes that there must be some ultimate end to the steady growth of nuclear weapons stockpiles of the Soviet Union and the United States and that a test ban - even if less than a perfect one - might be a very important step in reversing the present ominous trend.

As an indication of his viewpoint and desire to be helpful, Senator Pastore opined that perhaps the JCAB should hold public hearings on this subject, thus affording knowledgeable witnesses the opportunity to bring out the positive benefits of a test ban. I definitely suggest that this possibility be "flagged" for the President. I am impressed with Senator Pastore's skill as a Chairman; and therefore such a hearing, if properly timed, might be helpful. On the other hand, there are obvious risks.

3. Naval Reactors Program - Status of Admiral Rickover

I described my discussions with Secretary of the Navy Korth and our plan to continue Admiral Rickover in responsible charge of the Naval Reactors Program. I informed him that I felt that this could be handled in such a way as to be satisfactory to Admiral Rickover. The Senator was reassured and said he would not take steps to introduce legislation, provided the new arrangements move along with reasonable promptness.

4. Visit to the Soviet Union

I mentioned, again, the invitation which Mr. A. H. Petrosyants, Chairman, State Committee of the USSR Council of Ministers on the Utilization of Atomic Energy, extended to me to visit the Soviet Union this Spring. (This was covered in my regular bi-weekly report to the President of February 26th, a copy of which is attached for your convenience.) I told the Senator that I would be happy to have him accompany me. He said that he appreciated the suggestion but would not want to add a political flavor to a visit conceived as a scientific one. I feel his intuition may be correct.

* * * * *

There are a few other matters of some current interest which may come up although they are of relatively less importance or urgency at this time.

a. Interdepartmental Energy Study

Senator Pastore said that he was favorably disposed to the broad study of energy resources which the President had requested and which Dr. Wiesner is to chair. I think this is worth noting since some of the colloquies between members of the Joint Committee and AEC, Interior, and FPC witnesses during the "202" Hearings seemed to imply a generally unfavorable reaction by the Committee to the study. It seems clear, however, that Senator Pastore recognizes the importance of a broader energy study and the fact

that it complements and does not duplicate the Commission's study on civilian nuclear power. He also feels that the inclusion in the 1964 budget of construction funds for a spectral shift reactor and a fast reactor experiment represents a start of implementation of the AEC study and report.

b. Reorganization of the Commission

I did not mention this matter to Senator Pastore at our breakfast meeting, although I had discussed it with him previously. It is possible that he may raise the issue with the President. The way it stands is that the Commission has submitted to the Director of the Bureau of the Budget our recommendations for a Single Administrator, a Deputy Administrator, and three or four Associate Administrators, each to be appointed by the President. Commissioner Barry feels that we should instead strengthen our administration through actions which he feels can be taken through the framework of the present legislation. Our recommendation to the Bureau of the Budget would involve legislation. The Joint Committee is "cool" to such legislation in this session, although they may be amenable to some exploratory hearings on the subject toward the end of the session. Unless the President should happen to feel strongly about the need for legislation, there is virtually no possibility of action this calendar year.

c. AEC Report to the President on Civilian Nuclear Power - Meeting with the Atomic Industrial Forum

I met recently with the Atomic Industrial Forum to learn the results of their survey of industry reaction to the AEC's nuclear civilian power report. While the results of the survey were generally favorable on the over-all report, industry's stand on private ownership of special nuclear materials was significant: AIF members voted 53 to 0 in favor of the Commission's proposed formula for private ownership. I went on to explain, at Senator Pastore's request, the meaning of "tail enrichment", pointing out that it should be called either an "enrichment service" or a "barter arrangement."

4. FORNEX, India, Reactor

I described our meetings with Dr. Thakha and his associates on the subject of the Tarapur reactor and told him that we had made it quite clear that the IAEA safeguards should be accepted in principle. I told the Senator that, in balance, his letter which was publicized had been helpful, but that it was unfortunate that he also revealed our "fall-back" position. Senator Pastore expressed regret that the letter had gone as far as it did. He also had had conversations about India's technical capability to carry on this project, but I believe my explanations (based on some independent investigations which I initiated) allayed his concern.

Apart from programmatic matters, there is an observation which the President might wish to make, and that is that we have been tremendously pleased with the manner in which the Senator states his Committee hearings. His fair and objective treatment of witnesses and his skillful and polite method of dealing with Committee members, thus keeping the discussions "on course", have been the subject of extensive favorable comment within and without the Commission. I think this is well worth noting and encouraging.

Two final thoughts. First, I think you should know that I feel the Commission's program is in pretty good shape and could stand any reasonable scrutiny. I realize this may be a self-serving observation on my part, but I think the President has reason to feel comfortable in discussing Commission activities with Senator Pastore. Secondly, if you think it would be of any assistance to the President, I would be pleased to brief him on the matters discussed above, which - in an effort to keep them brief - may not in each instance provide the President with a feeling for their relative importance or sensitivity.

Signed Glenn T. Seaborg

Glenn T. Seaborg

Enclosure
Copy of Report to President
dat 2/26/63

INCOMING TELEGRAM

U.S. ATOMIC ENERGY COMM
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HONORABLE GLENN SEABORG CHAIRMAN

ATOMIC ENERGY COMMISSION WASHDC

A JOINT COMMITTEE REPRESENTING THE AEC, LABOR AND CONTRACTORS HAS BEEN MEETING FOR SOME TIME TRYING TO SOLVE LABOR PROBLEMS AT THE NEVADA TEST SITE. TURMOIL CONTINUES TO PLAGUE THIS VERY IMPORTANT SEGMENT OF OUR SPACE PROGRAM TO THE DETRIMENT OF THAT PROGRAM AND TO THE ECONOMIC DETRIMENT OF THE STATE OF NEVADA. IT IS MY BELIEF THAT WHEN TWO PARTIES ENTER INTO A CONTRACT AND AT A LATER DATE A THIRD PARTY INTERVENES ONLY CONFUSION CAN RESULT.

I REQUEST THAT THE AEC NEGOTIATING TEAM BE INSTRUCTED TO FIND AN EQUITABLE SOLUTION TO THIS PROBLEM AT THE EARLIEST POSSIBLE DATE AND THAT YOU GIVE THIS MATTER YOUR PERSONAL ATTENTION

INCOMING TELEGRAM

247

SO THAT THE TEST PROGRAM CAN GO FORWARD WITHOUT INTERRUPTION

HOWARD W CANNON UNITED STATES SENATE

(35).

Honorable Howard Cannon
United States Senate

MAR 8 1963

L. BY DOE
NOV 86

Dear Senator Cannon:

This is in response to your telegram of March 6. The discussions you referred to between representatives of AEC, labor, and contractors were held on five days during February. These days were not consecutive because some of the labor representatives had to attend meetings of the AFL-CIO in Miami during the month. The discussions failed of agreement on February 27. On the same date, the Commission advised its contractors to put into effect recommendations of the Nevada Test and Space Site Construction Labor Board, which action had previously been deferred pending the outcome of these discussions. For your information, I am enclosing a copy of these recommendations and a copy of the Commission's report of March 1 of its action responsive to the recommendations.

Purely by coincidence, a work stoppage commenced at the site just before the February negotiations failed of agreement. It is clear this stoppage was unrelated to the negotiations and resulted from arrival on the site of a non-union power line construction contractor.

Since February 27, there have been a number of informal discussions between Commission representatives, local labor leaders, and the national office of the Building and Construction Trades Department. A date of March 13 has been established for reconvening discussions among the same parties that participated in February. I am told that some disagreements which then existed between some of these participants have been resolved and that the prospects are much improved for a complete and final resolution of all issues, with substantial improvement in economy of operations. I am satisfied that a serious effort will be made in the discussions commencing the 13th to accomplish such a resolution. I have instructed Commission staff to see that you are promptly informed when these discussions are concluded.

Sincerely yours,

Glenn T. Saborg

Chairman

cc:
Chairman - 2
GM - 1
OCL - 2
OGC - 1

Enclosures:

1. Second Interim Rpt of NTESSCLB
2. Ltr of 3/1/63 to NTESSCLB

LAER

OGC

OCL

AGND

AGM

DGM

GM

SMITH:reg

3/7/63

Second Interim Report and Decision
Nevada Test and Space Site Construction Labor Board

The first report and decision of the Board, issued on January 4, 1963, outlined the major problems presented to the Board and expressed its resolve to settle the issues of uneconomical practice by informal conferences and negotiations, if at all possible, before resort to a decision. This second action consolidates additional agreements, understandings, findings and decisions.

1. In regard to shifts and hazard pay practices, the Board notes that with respect to four specialty crafts -- Pipefitters, Electricians, Sheet Metal Workers and Iron Workers -- either no uneconomical practices exist or the relevant parties have proposed revisions in contract provisions and practices which would eliminate such uneconomical practices by providing for shift operations (with shift premiums) and provide for hazard premiums only to employees exposed to hazards and for actual hours of exposure. While these shift arrangements vary in some details from those accepted by eight crafts, they present no uneconomical practice, or serious inconsistencies. The Board expects the proposals for the four specialty crafts regarding shifts and hazard pay to be placed into effect, just as revised shift and hazard pay provisions have already been placed into effect for eight crafts. (See attachment.)

The Board recommends that the relevant parties to all construction collective bargaining agreements incorporate the revised shift and hazard pay provisions into appropriate collective bargaining agreements (on an area, master area or project basis) at least as far as work operations on the site are concerned.

2. The Board has reviewed communications from the Carpenters and the Painters regarding the reduction in subsistence pay from \$8.00 to \$7.50 a day. The Board at no time had determined that such subsistence pay for construction was an uneconomical practice. The reductions were premised solely on the appearances of an agreement which now has been disavowed. In those circumstances the Board recommends to the Atomic Energy Commission that subsistence pay for Carpenters and Painters be restored to \$8.00 a day.

3. The action of the Board of January 4, 1963, in regard to nonconstruction (maintenance and operations) activities performed by Reynolds Electrical and Engineering Company concluded that negotiations for a single agreement should be conducted by REECo, and by the crafts as a group with the participation of the international unions. The local building trades council, under date of January 24, 1963, has advised the Board that a five-man committee has been appointed with "full authority to negotiate and consummate nonconstruction agreement." The Board has concluded that with the addition of the Teamsters' representative, negotiations should promptly begin between REECo, and this

local committees and representatives of the international unions under the leadership of the Building and Construction Trades Department or through procedures selected by it. The negotiations should begin in Washington, D.C. at an early date to be arranged in consultation with these parties. Such joint negotiating committee should determine its own procedures for reaching an agreement. The Board retains jurisdiction of the complaint of uneconomical practices in this regard pending a review of the results of these negotiations.

4. Reporting Points and Payment for Time Spent in Traveling to Work Locations. The Nevada Test Site poses a rare combination of problems concerning reporting points and travel pay that is not present on normal construction sites, even in isolated locations. The site is comprised of many hundreds of square miles; the work sites are isolated from 65 to 120 miles from Las Vegas. The combination of nuclear testing and construction makes for a wide diversity of operations with shifting work locations. The construction operations are projected to continue over a very long period, ten to twenty years, unlike ordinary projects. The nature of the site has been fundamentally changed in the past year by the addition of Project Rover and the space program. The site involves not only construction workers but white collar employees, professional and technical employees of laboratories and government agencies, which raise important questions of equity among these diverse groups of employees. The presence of both cost plus and fixed price contractors on the same site generates some problems, since their interests are not always identical. The level of testing operations has fluctuated widely in the past with international tensions making for variations in overtime, the need for and use of camps and transportation requirements.

The role of government in this situation has involved many complications. The testing operations have brought issues of security and safety, and reporting points and travel time are complicated on days on which an event occurs. The AEC and SNPO have major responsibilities for planning camps, transportation and work locations which have undergone many changes. Moreover, recent changes in the wage-hour law and the eight-hour day law involve new problems of interpretation.

In these complex circumstances the Board does not believe that a large number of separate craft agreements, each with its own procedures for interpretation, can be an adequate basis for establishing and administering reporting points and eliminating uneconomical travel pay on this unique site.

The Board has concluded that the following general principles should apply to the reporting point and travel pay issues:

(a) A subsistence allowance is an appropriate form of compensation to make recompense for the inconvenience of travel and the need to report at such isolated work places. Although the Board has not reviewed the detailed administration of the various subsistence payments, it has not found the level of the various craft subsistence allowances to be an uneconomical practice for construction activity.

(b) The Board does not believe that subsistence allowances under present circumstances should be made equal among all construction crafts. Indeed, the normal practice in the construction industry, where such subsistence payments are made for isolated locations, is for variation among crafts with some of the specialty crafts typically receiving higher payments than the basic trades.

(c) The Board does not believe that subsistence allowances under present circumstances should necessarily be standard within a construction craft for all locations on the site in view of the great distances. The Board notes that some area agreements now provide for such differentiation of subsistence pay by distance.

The Board submitted to all interested parties the unanimous tripartite fact-finding report on "Activities Preliminary and Postliminary to Actual Work Activities at the Ekvada Test Site" dated December 8, 1962. It further requested the AEC to review its complaints of uneconomical practices on this issue. The AEC submitted a proposal dated January 14, 1963 regarding reporting points and arrangements at the test site, which was distributed to all interested parties for comment. The Board reviewed the AEC proposal and various comments at its meeting of January 24, 1963. The AEC basically proposes a series of reporting points at work sites apart from camps; REECO suggests free zones around camps with an additional camp at CP 6. The unions basically propose no change in present reporting practices except that some propose the substitution of straight time for premium pay for travel time where it now exists. The Board at this time does not endorse any one of these principles for the site as a whole.

(5) The Board recommends that a tripartite negotiating committee representing the contractors on the site and their associations, the international and local unions representing construction workers on the site under the leadership of the Building and Construction Trades Department, and the AEC develop a single agreement, signed by the three groups of negotiators, covering reporting points and reporting practices at NTS, as well as a procedure to settle disputes over such problems and over the determination of new reporting points in the future on the site. Such an agreement could be an addendum to all area construction agreements or a project agreement providing for standardized reporting points and a procedure to settle questions of interpretation or application over this issue.

In a sense the Board is proposing a unique form of a project agreement directed to the questions of reporting points and travel pay and related subsistence pay. The tripartite committee should report to the Board periodically on the progress of such negotiations.

(6) The Atomic Energy Commission has recently issued appropriate directives and taken other action to eliminate travel pay, adjust subsistence allowances as between areas and standardize reporting points for technical, professional and clerical employees of contractors. Los Alamos Scientific Laboratory eliminated all travel payments for such employees effective January 1 and now requires them to report to NEDS (the 400 Area) and other points on their own time. On January 28 Lawrence Radiation Laboratory ceased paying travel time and required its employees to report on their own time. EGG also has ceased paying travel time. REECo. has eliminated travel pay for all white collar workers. Aerojet, Westinghouse and Catalytic have never paid travel time for white collar workers at NEDS (the 400 Area). NEDS (the 400 Area) has been a reporting point since December 7, 1962 for at least eight construction crafts on cost type contracts and on new contracts let after that date.

The present practice for the four specialty crafts employed at NEDS (the 400 Area) is to receive both subsistence and a travel allowance (or travel on employers' time). The Board decides, subject to review by the tripartite committee under paragraph 5 above, that in order to eliminate uneconomical practices, all construction crafts should now report to NEDS (the 400 Area) on their own time. The Board advises the AEC that payment for time spent in traveling from Camp Mercury to and from NEDS (the 400 Area) should not provide the basis for cost reimbursement for cost plus work and for fixed price construction contracts let after December 7, 1962.

Nevada Test and Space Site
Construction Labor Board

James J. Reynolds

William E. Simkin

John T. Dunlop

Donald K. Grant

C. J. Haggerty (dissenting
with respect to item 6)

January 30, 1963

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March 1, 1963

Mr. James J. Reynolds, Chairman
Nevada Test & Space Site Construction
Labor Board
Department of Labor
Washington 25, D. C.

UNCL. BY DOE
NOV 86

Dear Mr. Reynolds:

We are writing you in respect to each of the numbered paragraphs as indicated below of the Second Interim Report and Decision of the Nevada Test & Space Site Construction Labor Board dated January 30, 1963. In connection with this report, the Commission has taken action as follows:

1. Under date of February 27, we requested a clarification of this paragraph of your recommendation to the Commission. Appropriate action will be taken promptly upon receipt of the requested clarification.
2. Discussions with representatives of the Painters and Carpenters Union, reveal that a major question in respect to the painters is the further restoration of subsistence allowance to the painters for Saturday and Sunday work at remote areas. The local painters agreement and test site practice prior to December 7 provided a subsistence allowance of \$3.00 per day for 7 days per week in remote areas. The now disavowed master agreement provided for a subsistence allowance of \$7.50 per day for days worked. Your order did not indicate whether it was your intent to recommend a restoration of subsistence for the 6th and 7th days of the week when these days are not worked. However, we have assumed that your recommendation did so contemplate and have advised NEECO to restore for both crafts the \$.50 a day for a day worked, and also the \$3.00 for the 6th and 7th day in the case of the painters at remote areas, both retroactive to December 7.
3. As I have previously informed Mr. Pirrung, a meeting was held on February 1 in the office of Mr. John McCartin of the United Association to discuss the possible extension of the General President's Maintenance Agreement to Reynolds operations at the Nevada Test Site. No conclusion was arrived at.
4. This paragraph does not contain any recommendation to AEC at this time.

5. By an agreement between the writer and the Building and Construction Trades Department, discussions participated in by AEC, site contractors, the Building and Construction Trades Department and local unions were conducted on five days during the month of February. The objective of these discussions was a project agreement applicable to all crafts and defining the terms and conditions of employment applicable to construction workers at NTS. These discussions did not result in agreement. The principle area of disagreement involves travel beyond Mercury. If agreement had resulted on such travel, it is likely other provisions of the project agreement could have been readily concluded. The parties present discussed inviting participation by associations as recommended by your Board. We concluded that at this point such action could serve no useful purpose and would not contribute to agreement in the areas where the three groups immediately concerned had been unable to agree.

6. As you suggested, the group endeavoring to negotiate a project agreement did review your recommendation relating to the elimination of travel time for specialty crafts at the 400 Area, but was unable to agree. In the interest of furthering the most favorable climate for agreement, the Commission deferred putting the recommendations of your report into effect until it was clear that there was a failure of agreement. This failure became clear on February 27. On that date, the Commission advised cost-reimbursed contractors at the Nevada Test Site including NRDS, that payment of time spent in traveling from Camp Mercury to and from NRDS would not in the future provide a basis for cost-reimbursement on cost plus work for the four named specialty crafts. Contractors were also advised that for all crafts including the eight covered by your First Interim Report, free transportation would no longer be reimbursed from Mercury to the 400 Area. The discontinuance of travel time payments for the four crafts and the discontinuance of transportation for all 12 crafts is effective at the beginning of the payroll period commencing March 4, 1963.

Sincerely yours,

Oscar S. Smith, Director
Division of Labor Relations

March 7, 1963

UNCL. BY DOE
NOV 86

Dear Mr. President:

I am pleased to submit to you a recommendation for the replacement of Dr. Irland J. Haworth as a Member of the U. S. Atomic Energy Commission. He is Dr. Gerald F. Tape, President of Associated Universities, Inc., which operates the Atomic Energy Commission's Brookhaven National Laboratory, Upton, N. Y.

If nominated by you and confirmed by the Senate, Dr. Tape would succeed Dr. Haworth when the latter assumes his new appointment as Director of the National Science Foundation on or about July 1, 1963. Dr. Tape's appointment would be for the remainder of Dr. Haworth's unexpired term, that is, until June 30, 1966.

The matter of finding a suitable and qualified replacement for Dr. Haworth has been a joint effort on the part of Dr. Wiesner, Dr. Haworth and myself, and we are in agreement in recommending Dr. Tape to you. Dr. Tape is respected as a scientist and administrator and has had long and productive experience with the program of the Atomic Energy Commission. Dr. Tape is registered as a Republican; however, like Dr. Haworth, he votes as an Independent, and can be expected to give intelligent support to this Administration's program. A biography of Dr. Tape has been provided Mr. Dungan of your office.

After some persuasion on my part and that of Dr. Wiesner and Dr. Haworth, Dr. Tape has consented to serve, if appointed.

I recommend that you approve the nomination of Dr. Gerald F. Tape as a Member of the U. S. Atomic Energy Commission. I have discussed Dr. Tape's appointment with Mr. Lee White and Mr. Ralph Dungan, in addition to Dr. Wiesner, and they are aware that this recommendation is being submitted to you.

Respectfully,

(Signed) Glenn T. Seaborg

Glenn T. Seaborg

The President
The White House

bcc: Dr. Wiesner
Mr. Bundy
Mr. Lee White
Mr. Dungan
Dr. Haworth

Carl Kaysen called at 2:30 p.m. to ask if I have received a copy of a memorandum which Ros Gilpatric sent to the President on dispersal in Turkey. I told him I have not yet seen it, but when it comes across my desk I will call him. He mentioned our lending George Kavanaugh to the Joint Committee to advise and consult on the testing and disarmament program. I said Pastore requested this and we feel obliged to cooperate. He suggested I might wish to talk to Kavanaugh and make the point that the negotiations are very complicated since they involve issues of judgment, differences of opinion, etc., and these points should all be brought out in the framework in which they are understood. I told him I will talk with George.

I called Kaysen about the letter from Gilpatric to me dated March 6, 1963, regarding modification of MK 28 Y 3 weapons with Permission Action Link (PAL) devices. I pointed out that the last paragraph uses one term 50, whereas another was used in every case earlier. He said he thinks that one number is the total in the U.S. and non-U.S. involvement, and the other is modified so that it will be useful for Quick Reaction Alert (QRA). I said we have also received a copy of the memo from Gilpatric to the President which refers to the dispersal of the MK 28 weapons (top of page 3).

I said this story is complicated and I don't know quite whether the AEC should be back in this for a formal determination or not. I said he might recall that, when NSAM 143 was issued, it was clarified by the Joint AEC-DOD letter to Bundy of September 22, 1962. When NSAM 197, dated October 23, 1962, was issued confirming the procedure, something was left out which we thought was very important and which he clarified in his letter to me of October 23rd. The key lines are, ". . . that we participate as a matter of responsibility. . ." The question is--in one sense one could say that in NSAM 143 the President overruled the AEC or took an intermediate position (kind of a compromise that included no QRA). Now, however, when that is brought back (to authorize such TNB weapons on QRA aircraft, and now that this particular study has been completed, the question is, is this a part of an implementation of NSAM 143, or is it enough different in line with his letter of October 23rd.

Carl asked if there is a substantive problem and I told him I don't know how this Commission feels--that there could be because it is a different Commission. Carl said he thinks there will be some virtue in having the Commission look at it, and instead of arguing a jurisdictional question, express my views. In view of the history of this, we should be back in with reference to his interpretive letter of October 23rd. Carl said he would like to look at this correspondence again. I pointed out that in the joint AEC-DOD letter addressed to Bundy, and signed by Lee Haworth as Acting Chairman, dated September 22, 1962, the very next to the last paragraph says, ". . . in view of its responsibilities . . . the Commission understands. . ." I pointed out that in NSAM 197 that was left out and this omission was pointed out in telephone calls from Howard Brown to Chuck Johnson and was rectified by his memorandum of October 23rd. Carl said he will look at the correspondence and call me back.

Kaysen called back to say he has looked at the correspondence mentioned in our previous conversation. It seems to him that I have never joined in a recommendation for this particular program (i.e., for U.S. and non-U.S. NATO forces. I told him this is correct. He said, therefore, the argument will be that I should make a comment on it. He suggested taking the letter before the Commission and then sending a memorandum to the President stating that I am

commenting on Gilpatric's recommendation in accordance with my responsibility, and sending a copy of the memorandum to Gilpatric.

I asked if he thinks this is better than sending a note. He said there is some sense of urgency and suggested I take action with dispatch. He thinks that, in view of the nature of Gilpatric's recommendation, the President probably will concur that AEC should participate in it and the best way to do this is to make a comment. He suggested my calling Ros on this. I told Carl we will go ahead on this basis and also we will go ahead and respond more immediately on the March 6th letter (to modify the Mk 28 Y 3's) in which he requested us to do something specific. I said, in the meantime, I have received another letter from Gilpatric, dated March 6th, which has to do with the policy on a large, multi-megaton weapon. He said he hasn't seen it. I said he will find a letter in his files from me to McNamara, dated December 18, 1962, suggesting we prepare a joint letter to the President asking he consider not only the political implications but the military ones as well.

Gilpatric's letter of March 6th says the DOD has decided to go ahead and that upon receipt of certain additional information from me the two of us might make a joint recommendation to the President. I said this isn't quite the way I pictured it--maybe the President should think about this before a recommendation is made. I said I had thought of possibly putting it to the President rather than recommending it to the President. Carl said he hoped that, whatever the recommendation, there will be some discussion. He said that in their December meeting they had envisioned some study of the subject. I said now we have to work out a way to do it and Carl said he will take a look at it. I told him in the meantime we will get some data together McNamara wants regarding feasibility and costs.

Friday, March 8, 1963 - D.C.

At 9:35 a.m. I presided over Information Meeting 253 (notes attached). I was called out of the meeting to take a call from Gilpatric. He was calling to apologize for the slip-up in not checking with AEC in advance on a letter on dispersal he sent to the President this week. He was at a loss to explain why General McNaughton or Jerry Johnson had not checked with us. He remembered that, when a similar incident occurred last fall, a procedure was worked out, where it became the Commission's responsibility to participate in these matters before a letter was dispatched to the White House. He asked me to convey his apologies to the Commission.

We noted Steuart Pittman's letter (copy attached) requesting a meeting to discuss civil defense matters.

The Commission met with Maritime Administrator Alexander to discuss procedure for clearance for use of European ports for the Savannah. We decided to insist on a public hearing before the Savannah can go to Europe. I told Alexander that he should have consulted with the AEC before releasing the European and American port schedule for the Savannah. He agreed this should have been done.

The Commission met with R. G. Rincliffe (President, Philadelphia Electric Company), R. Gilkerson (Executive Vice President), L. Everett (Manager Engineering) and V. Boyer (Manager Nuclear Operations) to discuss with them their plans for four nuclear plants (three at 1000 and one at 800 MW), probably gas cooled, in the period of 1970-80. All of these will tie into a 12,000 MW intertie.

Commissioner Wilson and I heard a briefing by Lockheed Missiles and Space Company on their SNAP work.



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

UNCL. BY DOE
NOV 86

COPY NO. 15

March 8, 1963

INFORMATION MEETING 253

Friday, March 8, 1963, 9:35 a.m., Chairman's Conference Room, D. C. Office

1. Dr. Alvin Weinberg's Attendance at Pakistan Science Conference
2. Chairman's Letter to Secretary Udall re Selection of Sites for Nuclear Power Plants

The Chairman noted he had signed the brief letter to Secretary Udall regarding an indication of desire by the Department of Interior to participate in site selection, stating that an early discussion with the Secretary would be sought. (Henderson)

3. National Security Council Policy Document on Peaceful Uses of Atomic Energy

Regarding relevance of the document dated 1957, the Commissioners concurred in the memorandum to the General Manager requesting that document be up-dated and a summary policy statement prepared for submission to the National Security Council. (Wells)

- ✓ 4. Assistant Secretary of Defense Stewart Pittman's March 6 Letter Requesting a Meeting to Discuss Civil Defense Matters

The meeting is scheduled for 4:00 p.m. Monday, March 11, D. C. Office. The General Manager said a discussion paper will be prepared for the Commissioners' use. (English)

(Mr. Ramey entered the meeting)

5. Secretary Gilpatric's March 6 Letter re Weapons Development

The Chairman requested appropriate action. (Betts)

6. Secretary Gilpatric's March 6 Memorandum to the President relative to NASM 143

The Chairman requested appropriate staff action leading to a determination by the Commission, in accordance with NASM 197 and the joint AEC-DCD letter of September 22, 1962. (GM)

7. Chairman's March 8 Letter to Mr. Adrian Fisher re PLOWSHARE Program Under a Test Ban

8. Letter to Manson Benedict, GAC, re Weapons Research at Los Alamos

The Chairman discussed briefly his letter to Dr. Benedict and the General Manager said he would brief Commissioners Wilson and Ramey on Dr. Norris Bradbury's views on this subject.

9. March 7 Letter from Mr. Bundy Approving NTS Events

The Chairman noted White House approval of the next two events. Dr. Howarth commented that the letter to the White House re the remaining NTS schedule will be ready for the Chairman's signature today or tomorrow.

10. Briefing Material for the Chairman and Mr. Ramey in Preparation for Their Visit to Richland Operations Office

The Chairman requested review of the proposed response re (a) advance notice on changes in employment levels, (b) biological program at Richland, (c) radioactive waste handling, and (d) fast reactor program from the point of view of affirmative response. He also suggested the preparation of background material for Senator Jackson's office. (Bloch)

11. Mr. Frederick H. Warren's Request for "Q" Clearance Access to Information at the Hanford Plant

The Commissioners suggested consideration of the use of an adjusted "L" Clearance.

12. Merchant Team Discussions in Europe

The Chairman suggested Mr. Ramey inquire into current status of developments.

13. Chairman's 2:00 p.m. Meeting Today with Messrs. Romnes and Fisk to Discuss Sandia Contract

Mr. Ramey said it might be helpful to discuss with the Western Electric representatives such matters as the weapons effects laboratory and other Sandia suggestions. The General Manager added that the latter is under study.

14. Agenda for the Week of March 11, 1963

Approved, (Secy) _____

15. Program for Large Nuclear Reactors for Desalination Plants

Dr. Wilson reported further on last week's meeting of the task force and the Commissioners discussed briefly the proposal for a study contract. The Commissioners will consider the list of possible A-E contractors and Dr. Wilson's memorandum on Monday. (Secy)

16. IAEA Symposium on Biological Effects of Neutrons

The General Manager discussed the IAEA proposal for the Symposium at Brookhaven and the Commissioners agreed to U.S. support at a level not to exceed from \$13 to \$17,000, holding the conference at Brookhaven, and waiver of reciprocity. (Wells)

17. Tatum Salt Dome Experiments

The General Manager reported on the discussions with Senators Eastland, Stennis and others and their agreement that the AEC should proceed. He suggested the letters be sent out today. (Brown)

18. Commissioners Meeting with Southwest Atomic Energy Associates

Commissioners Wilson and Ramey discussed briefly their recent meeting with the Association representatives and the Associates' plans for a proposal for construction of a fast ceramic breeder reactor at a site in Arkansas with Commission pre and post construction research support. The Commissioners suggested that review of the proposal, when received, should include consideration of comparative costs of placing the proposed reactor at an AEC site as against the Arkansas location.

PRESENT

Dr. Seaborg General Luedecke
Dr. Wilson Mr. Hennessey
Dr. Haworth Mr. Brown
*Mr. Ramey Mr. McCool

DISTRIBUTION

Commissioners
General Manager
General Counsel
Secretary

*Partial Attendance

W. B. McCool
Secretary

ASSISTANT SECRETARY OF DEFENSE
WASHINGTON 25, D.C.



CIVIL DEFENSE

MAR 6 1963

ENCL. BY DOE
NOV 86

Dear Dr. Seaborg:

Several discussions have occurred during the past year between staff members of the Atomic Energy Commission and my office concerning the mutual interests of the Commission and the Department of Defense in research pertaining to civil defense. Through these discussions, we have been apprised of the interest and desire of individuals and research institutions in the AEC research community to assume a more active role in such research. For our part, we are currently exploring ways and means of improving our capability for management of the OCD Research program and for achieving greater coordination and cooperation with agencies having major ongoing research programs of great value to civil defense.

The time is ripe, I believe, for an informal exchange of views on this matter. I would appreciate the opportunity to meet with you and appropriate members of your staff to discuss in a preliminary way the possible future course of the AEC-OCD relationship in civil defense-related research and development. Would a meeting during the week of March 11, 1963, be convenient for you?

Sincerely,


Steuart L. Pittman

Dr. Glenn T. Seaborg
Chairman
U. S. Atomic Energy Commission
Washington 25, D. C.

700 2/108 - 1/1/63

From 2 p.m. to 2:30 p.m. I met with Haakon I. Romnes (President, Western Electric Company) and James F. Fisk (President, Bell Telephone Labs). They asked whether I would write them a letter--presumably they mean a letter from Seaborg to Romnes--pointing out our satisfaction with their past performance and requesting them to continue. It could even be merely a confirmation of our decision to renew their contract, if this is as far as we would want to go. They think that such a letter would protect both them and the AEC because they have been under criticism from people like Senator Estes Kefauver, who imply that they are out for self-gain. They do not intend to make the letter public but want it in their files for possible future use.

They asked me whether I could make an assessment as to their future role. I told them that I thought they would continue about as they have in the past, with more and more emphasis on modernizing and rebuilding more sophisticated weapons. I said that I thought there would be a tendency more toward an integration of the whole weapons system from beginning to end. I also said I thought there might be some occasions, which I couldn't identify in advance, where we might ask them to take on some job suitable to their competence, as we did in the case of Aerospace Safety.

I met with James Saxon Childers of Tupper and Love Publishing Company, Atlanta, and I agreed to write a chapter on chemistry in a book which will be entitled, Listen to Leaders in Science.

At 5:15 p.m. Kaysen called and said that if the matter of dispersal can be taken up by the Commission on Monday, it will be helpful if this is cleared at an early date since a group is leaving soon.

I received a note from President Kennedy approving my recommendation of Jerry Tape as a Commissioner. While discussing the Tape appointment with Dungan, he told me that the President wants me to accept reappointment as Chairman of the AEC.

Saturday, March 9, 1963 - D.C.

I worked in the office until 12:45 p.m. Haworth and I worked on a response to Bundy which will give detailed costs, the degree of public noise, etc., for preparation to resume atmospheric testing on June 1, 1964. Bundy feels, as I do, that obtaining Christmas Island under suitable conditions will be such a difficult task that we should try to confine ourselves to Johnston Island. The letter essentially suggests that course.

It appears that the AEC should have pressed harder to acquaint the President with the difficulties of his Nassau Agreement with Macmillan. It seems clear that Merchant is running into trouble in selling the use of surface ships to NATO countries. They prefer the original suggestion--the use of nuclear submarines.

I had lunch at the Wall Street Journal office (1015 14th Street) with Henry Gemmill (Washington Bureau Chief), Barney Kilgore (President), Henry Fowler (Under Secretary of the Treasury) and a number of reporters for background discussions preparatory to tonight's Gridiron Club dinner. I explained why reducing the number of on-site inspections isn't a concession or a risk to U.S. security and tried to weigh the balance of risk if there is a continuing, unlimited arms race.

I attended the Gridiron Club dinner (white tie) at the Statler Hotel as the guest of James R. Wiggins (Editor, Washington Post). I talked to George Romney about my Michigan background and found that my friends Henry Eyring and Golden Romney are among his 237 first cousins. I also talked to Tom Dewey, Harold Stassen, Roger Blough, Jim Farley and many others. I sat at the head table next to Lauris Norstad

with whom I had a good chance to talk. He resigned his NATO post (which happened last summer) as a result of his standing offer to do so whenever the President wanted him to. Norstad feels that some people in the Kennedy Administration "shoot from the hip" too much (McNamara is an example), that Nassau was a mistake, and that his (Norstad's) policies toward France would have been right. However, he does have a high opinion of the President and of Bundy. George Romney, Hubert Humphrey and President Kennedy all spoke well. The lampooning was very cleverly done.

Sunday, March 10, 1963

I worked on the talk I will give on March 14th to the Business Council (Sheraton-Carlton Hotel), the speech I will make at the University of Puget Sound on March 17th and the one I will give at the National Security Seminar, Industrial College of Armed Forces in Dayton, Ohio, on April 1st. I also worked on the index to my book, Man-Made Transuranium Elements, and read journals.

Helen and I attended a Gridiron Club Reception at the Statler Hotel (5:30 p.m. to 7:30 p.m.) where last night's show was repeated for the ladies.

Monday, March 11, 1963 - D.C.

At 9:15 a.m. I presided over Information Meeting 254 (notes attached).

I sent a letter to President Kennedy declaring that the Commission joins the DOD in determining nuclear weapons can be dispersed, provided the Commission can make a survey to assure itself that information in weapons will be secure. (This was done in view of the previous determination by the President, overruling the AEC who refused to make the required determination last year that such weapons can, in principle, be placed on QRA.) Permissive links will be installed, thus allaying another concern of the Commission.

I sent a response to Bundy's letter of March 5th (attached) concerning future atmospheric testing.

At 12:10 p.m. Carl Kaysen called in connection with a matter which Pastore raised last Friday with the President. Kaysen asked if the AEC has had any discussion with the JCAE staff on plutonium production and the future schedule. I said I don't know about the staff but I do not think there has been any. Kaysen said the U-235 production schedule has been revised downward since last year, and this is the first he has heard the plutonium schedule got into the discussion. He asked if this is new to me also. I said we have a June 1st deadline of getting a schedule to the President with two or three alternative approaches, and it can lead to some real curtailment of Production. Kaysen says he understands this point of view and we can make some cost savings by substituting the new incoming reactor for some of the old ones. I said there are other considerations: some reactor products coming to the fore might be used in space vehicles, i.e. Pu-238 and Cm-244. I said if we go into this (and I feel we should) it's because it is the most efficient power source. NASA and DOD are interested and could probably use up one of the Savannah River reactors. I added, with respect to U-235 production, we are discussing the possibility of reducing all three plants somewhat and/or cutting one out. I said that all three are located in distressed areas and if we take this action it could result in unemployment of thousands of people. I asked if he had any report on how the meeting went between Pastore and the President. He said he had not heard, except the President did say that Pastore was generally relaxed and easy. Kaysen told me he will check on the outcome and let me know.

Haworth and I had lunch with John McCone at the CIA to discuss my forthcoming trip



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ATOMIC ENERGY COMMISSION
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March 11, 1963

INFORMATION MEETING 254

Monday, March 11, 1963, 9:15 a.m., Chairman's Conference Room, D.C. Office

1. Appendices to Civilian Nuclear Power Report

The Commissioners agreed the appendices should now be sent to the other agencies involved in the study. (Ink)

2. Letter to Mr. Bundy re Test Readiness

Dr. Haworth confirmed Department of Defense clearance through Dr. Harold Brown, and the Chairman said he would send the letter today subject to Mr. Ramey's review. (Henderson)

3. May 27-29 Stocktake Meeting in London

The Chairman suggested the White House be advised. (Betts)

(Dr. Haworth left the meeting)

4. Telegram re Firing of NTS REECO Employees

The Commissioners discussed briefly the telegram of protest addressed to the Chairman and the Chairman requested a report from Mr. Oscar Smith upon Mr. Smith's return to Washington. (Bloch)

5. Chairman's March 8 Meeting with Messrs. Romnes and Fisk to Discuss Sandia Contract

The Chairman reported briefly on his meeting with the Western Electric officials and the exchange of views on future planning by Sandia. Mr. Romnes suggested the helpfulness of a letter from the Commission re the contract and the Commissioners agreed ^{an} appropriate letter should be sent and hopefully used with discretion. (Vinciguerra)

6. Prospectus for Interdepartmental Energy Resources Study

The Chairman noted the document will be circulated to the Commissioners.

7. Letter from Mr. Webster Maxim re Administrative Conference

The Chairman suggested Commissioners Ramey and Palfrey participate as appropriate. (Secy)

8. February 27 Inspection . Division Report to Commissioners

The Chairman noted the Commission will discuss the report if the General Manager and Director of Regulation have any comments of substance on it. (Nelson/Secy)

9. AEC Study for Task Force on Use of Large Nuclear Reactors for Desalination

The Commissioners discussed the proposed ground rules of the study and revised them. They requested:

- a. A meeting with Oak Ridge representatives after Dr. Wilson's or Dr. Weinberg's return
- b. Consideration of the Beck Associates as consultants to review the ground rules, review the tentative conclusions and consult with Mr. Ritzmann's study group.

The General Manager said he hoped to discuss the study contract tentatively today with the proposed contractor and consultant in anticipation of a discussion of the matter with the Commission at 10:30 a.m. Tuesday, March 12. The Chairman added that this matter should be discussed with the Joint Committee in the Commission's next Executive Session meeting with them following the 202 Hearings. (Henderson/Pittman/Ink)

10. Dr. Wilson's Letter from Mr. Hashimoto, Japanese Atomic Industrial Forum

Dr. Wilson noted Mr. Hashimoto's request for two Japanese representatives to visit the U. S. for a period of time to study in AEC facilities the uses of plutonium. Staff will review the request. (Wells/Pittman)

11. March 8, Friday Evening Meeting of Steering Committee for MASSAB Pact

Mr. Ramey reported briefly on the meeting he attended Friday at which draft papers were discussed for Secretary Rusk's use in a Saturday morning meeting with the President. Mr. Walt Rostow has given the AEC several questions for study relating to the use of submarines. (Wells/Pittman)

12. Mr. Fink, General Electric, call to Dr. Wilson

Dr. Wilson said Mr. Fink had called him to inform him that G.E. is protesting to Los Angeles Power and Water on their decision to negotiate a contract with Westinghouse.

13. Mr. Bhabha's Discussions with Congress

(Dr. Haworth re-entered the meeting during this discussion)

14. Dr. Haworth reported on the Morning Meeting re Energy Resources Study

15. AEC 867/70 Dispersal (Draft Letter to Secretary Gilpatric)

The Commissioners requested revision of a letter for transmittal to the President instead of Secretary Gilpatric and references to:

- a. NASM 197 and Mr. Carl Kaysen's October 23, 1962 modifying memo relating to that directive.
- b. The Joint AEC-DOD letter to Mr. Bundy of September 22, 1962 with inclusion of appropriate language regarding the Commission's responsibility and participation in determinations. (Henderson/Betts)

PRESENT

Dr. Seaborg	General Luedecke
Dr. Wilson	Mr. Ferguson
*Dr. Haworth	Mr. Henderson
Mr. Ramey	*Mr. Brown
	**Mr. Ritzmann, RD
	***Mr. Parks, GC
	***Mr. Reilly, SEC
	***Capt Higgs, DMA
	***Cmdr. Sommer, DMA
	Mr. McCool

- * Partial attendance
- ** Attendance Item 9 only
- *** Attendance Item 15 only

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UNITED STATES
 ATOMIC ENERGY COMMISSION
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MAR 11 1963

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Dear Max:

This will reply to your letter of March 5, 1963, concerning future atmospheric testing. In keeping with the President's wish, the Commission will proceed with planning and necessary "in-house" action to prepare for the conduct of a possible weapon development future test series in the Pacific pending a formal decision on the matter by the President. I will direct our effort, for the time being, toward an Atomic Energy Commission readiness date of June 1, 1964. The Department of Defense has reaffirmed intentions to plan for their tests on basically the same time scale. We will make every effort not to take overt actions that directly indicate test preparations are in progress prior to specific authorization by the President.

In regard to your specific questions, the following answers, with corresponding paragraph numbers, are the views of the AEC with general DOD concurrence:

1. Limitations that would be placed on the technical results to be gained from our testing program, if we use only Johnston Island and airborne and shipboard testing, are secondary to the additional operational complications introduced mainly because of the small land area, short and narrow air strip, limited camp and support facilities and increased interference with commercial shipping and air traffic. Limitations on results apparent at this time would be those due to greater limitations on yield of high altitude experiments and difficulties associated with conducting land based measurements in an intense and complex electromagnetic environment. A typical example of an operational complication involves the handling of sampling aircraft. In the Johnston area it is presently necessary for these aircraft to make long flights from Hawaii and stage back through the marginal Johnston Island airfield. This problem is greatly simplified at Christmas Island under existing conditions. If major base improvements were made at Johnston Island, many of the limitations would be reduced.
2. The degree of preparations possible at a "noise level" that would not interfere with continued test ban treaty negotiations depends upon our particular course of action, primarily upon our field preparations. The amount we can do without attracting attention would, of course, be

MAR 1 1 1963

very limited, if we were to take the Christmas Island source off action. The Hawaii-Johnston Island approach is somewhat better in this regard since base improvements can be accomplished to a certain extent under the cover of other DOD projects (rocket tests, satellite recovery, etc.) The DOD, in fact, is now proceeding with a large project at Johnston Island. We believe we could proceed for possibly another six months without attracting public attention.

3. Even if Christmas Island were available, the airborne testing capability would be needed; indeed, even using that island, this would be our primary means of weapons development testing. Christmas Island would serve as a base of operations for such development testing and in addition, possibly provide a location for rocket launched experiments.
4. The following concern matters of interest primarily to the Bureau of the Budget:
 - a. Detailed plans, reflecting cost and time estimates, have been prepared for "advanced base preparation and similar long range activities" either at Christmas or Johnston Islands, referred to in my previous letter. The work should not exceed a cost of \$25 million, much of which would be committed in FY 1963; it has been determined that this amount could be obtained by the redirection of \$25 million in AUM FY 1963 Weapons Program funds resulting from currently identified underruns. Suitable arrangements would have to be made with the Bureau of the Budget; however, to expend a certain portion of the \$25 million during FY 1964.

In order to proceed on an orderly basis, beyond the base preparation stage, additional funds for support of full scale testing would be required. Undoubtedly, a supplemental FY 1964 appropriation would be necessary at that time to provide the funds, requiring a formal determination by the President to proceed with all preparations for a specific test series.

- b. Assuming a June 1, 1964 readiness date, the following specific preparations and activities are contemplated:
 - (1) Airborne testing capability -- project is now proceeding with an operational readiness date of June 1, 1964 (presently budgeted).

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- (2) Long range advance base improvements -- certain projects such as dredging, improving port facilities and airfield construction should be initiated as soon as possible, whichever site is used. Other projects, such as those affecting camp facilities, POL systems, communications, utilities, etc. should be initiated not later than May 1963 (within \$25 million noted above).
- (3) Increased laboratory effort -- while certain preparations are in progress, a gradual step up in effort would commence about October 1963 reaching a high level by April 1964 (supplemental funds required).
- (4) Support and scientific build up -- commence pre-test general support build up in February 1964 (supplemental funds required).
- (5) Operational readiness phase -- the assignment of DOD operational forces to the Joint Task Force would commence on a moderate scale about May 1964.

c. Improvement work contemplated at Johnston Island, if Christmas Island were available for unrestricted use, would be only that required to support limited DOD tests with existing facilities, pending construction of a rocket launch complex at Christmas Island. Of course, if we abandon plans to use Christmas Island for the time being, as now appears advisable, all of our improvement work would be concentrated on Johnston Island and, to a limited extent, on existing Hawaiian air bases.

Our previous recommendation on use of Christmas Island was based primarily on operational flexibility, non-nuclear safety, and the long range potentialities, all of which favor this location over that of the Hawaii-Johnston Island combination. If it is the President's wish not to push for a firm commitment soon for use of Christmas Island, our efforts can be directed towards testing in the Johnston Island area. Rather than abandon Christmas Island completely, even though we plan to test elsewhere, we believe some continued understanding with the United Kingdom is desirable if it can be accomplished without adverse effect on test ban treaty negotiations or test planning. Even though we did no testing there, it would be very useful as a staging base for our sweep and sampling aircraft.

In summary, the Commission will continue "in-house" efforts, in conjunction with the DOD, directed towards a test readiness date of June 1, 1964. We recommend that our efforts be concentrated on the Johnston Island area as

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- 4 -

the site of any atmospheric tests in the immediate future. Sufficient land areas can be made available to support base improvement work at Johnston Island. It is proposed that dredging, to increase the land area, be initiated as soon as possible on the basis of general air base improvement. Meanwhile, negotiations for the use of Christmas Island might well continue, on an expeditious basis, even though it might be made available only as a staging base.

While we can get started on this basis, it must be realized that the overall build up, over and above land area extension and air field improvement, could not continue for more than about six months without notice by the press and the public. The preparations outlined in this letter are essential in order to prepare and maintain a state of readiness for testing even if a test ban treaty is actually concluded. For your information, I enclose a brief outline of our view of the requirements for test readiness in a test ban context.

It is my understanding that the Department of Defense will submit to you detailed plans and funding schedules for their testing program, as well as any further comments which they may have on the subjects of this letter.

Sincerely yours,

(Signed) Glenn T. Seaberg

MAINTENANCE OF A CONDITION OF READINESS UNDER A TEST BAN TREATY

(Provided to ACDA on February 13, 1963 in Connection
With Current Studies on Test Ban Treaty)

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The importance of maintaining a state of readiness, under a test ban treaty, to resume nuclear testing is discussed in the section on "Effect of Treaty Abrogation." The treaty should allow the United States to maintain a state of readiness so that we would not again be caught as unprepared as was the case in the fall of 1961. It would be necessary that the existence of this state of readiness be known, accepted, and perhaps encouraged, by the American public. In fact, the knowledge that we were maintaining such a state of readiness might in itself be one of the factors that would make a test ban treaty more acceptable to the American public. Such a state of readiness might be considered analogous to military training activities, which have always been accepted as a normal peacetime function.

Perhaps the most important means of obtaining test readiness is through the maintenance of strong weapons laboratories. This requires a recognition by the management and the scientists in the laboratories that it is national policy to encourage the work of the laboratories in every way possible. This requires public expression of this attitude at the highest levels in Government, as well as adequate budgetary support. The retention of the best people and recruitment of good young people, in the face of competition from the space program and other programs, will present a serious problem. This problem will be difficult to overcome if the work continues to be housed in temporary buildings and to be supported by inadequate equipment. Budgetary support for an adequate staff and adequate buildings and equipment will be essential. This will mean that the operating budgets for the two weapons laboratories, Los Alamos and Livermore, would have to be maintained at something of the order of their present level, and there would have to be some additional building construction and equipment procurement.

The status of the weapons effects work presents a special problem. It would probably be necessary to build up a third weapons laboratory to specialize in readiness for weapons effects testing. Continuous study of the problems of weapons vulnerability, weapons penetration capability and anti-weapon measures could be one of the functions of such a laboratory.

Another important aspect of test readiness would be the authorization for the conduct of experiments up to the explosive level specified by the treaty. A definition, allowing nuclear experiments up to one or more tons of yield, would allow the study of many scientific factors underlying nuclear weapons, would give the laboratories an important outlet for their work and would be within the spirit of a weapons test ban because it is below the threshold of direct weapons application. Important to readiness would be the maintenance of an underground testing capability at the

Nevada Test Site. Thus, a number of tunnels and holes should be available, together with the attendant electrical and other equipment which would be required to resume testing. This would require adequate budgetary support, perhaps of the order of 5 to 10 million dollars per year.

Also important would be the maintenance of facilities for off-continent atmospheric testing. This would require preparatory work, probably at both Christmas Island and Johnston Island. Required at Christmas Island would be the preparation of a better air strip, improvement of support facilities, improvement of roads, the building of missile-launch facilities, etc. Similar improvements at Johnston Island, including possible enlargement of the island, might be necessary. An extension of the agreement with the United Kingdom for the use of Christmas Island, perhaps including less restrictive conditions, would be needed. A caretaker, maintenance and readiness force would be required. In addition, it would be necessary to maintain the required aircraft with their diagnostic and other instrumentation. It is difficult to estimate the cost of this phase of a readiness program, but the cost of maintaining a task force at Christmas Island might be of the order of 5 million dollars per year, the cost of upgrading Christmas Island might be of the order of 25 million dollars, and the cost of the aircraft would be additional.

to Russia. We discussed some of the preparations and observations I might make and who will accompany me.

At 2:30 p.m. the Commission met with Webb, Seamans, Bisplinghoff (NASA), Finger, Admiral Boone and others to discuss the status of the ROVER program. We decided to investigate the idea of forming a capability in a national laboratory for complete and extended nuclear rocket work. They agreed to back us with legislative action for a community at the Nevada Test Site with only the central facilities to be funded by the Government.

At 6:20 p.m. I called Kaysen to ask if he has received a copy of the letter we sent to the President today on dispersal (in which we joined DOD in making the determination subject to security approval) and he said he had. With regard to our telephone conversation earlier in the day, he asked me to write a letter to Wiesner (with a copy to him) regarding the use of atomic products for power in space vehicles. He would like an explanation, but he feels Wiesner will be more qualified to understand the technicalities. I said we will write the letter immediately. Kaysen says he now understands a little better the questions raised by Pastore because the President has just received a letter from Pastore containing a number of comments and remarks. I asked if it will be possible for us to have a copy of the letter or at best, an excerpt. Kaysen said he will check. A copy (attached) was sent to us.

Tuesday, March 12, 1963 - D.C.

The Commission decided on guidelines for a study of large, combined electric generating-desalination nuclear plants. Beck Associates will help perfect the guidelines and Bechtel will make the study using four power levels: 1. the use of Los Angeles and Southern California Edison reactors for this purpose, 2. a 3500 MWT plant, 3. a 8000 MWT plant, and 4. three 8000 MWT plants. The results of this study are due in June.

The Commission met with Udall and Carr to discuss their interest in coordinating with the AEC in the study of the combination electric generating-desalination nuclear plants, plus working out better means for coordinating on plants, such as Bodega Bay which affects the natural beauty of the landscape.

Between 2 and 3 p.m. at the NBC TV Studio (4001 Nebraska Avenue) I recorded on tape twelve minutes of uninterrupted talk on the peaceful uses of atomic energy for Deena Clark's program, "A Moment With." The show will be broadcast at 6 p.m. on Saturday, March 16th, and again after midnight on Monday, March 19th.

The Commission met with Steuart L. Pittman (Director, Office of Civil Defense) and others to discuss the possible role of Oak Ridge National Laboratory in the Civil Defense program. If OCD wants it, a joint effort using ORNL as a sort of focal point for this kind of research will be set up.

Dungan notified Pastore and Holifield of the President's choice of Tape as Haworth's successor and they were displeased, presumably not with Tape, although they grumbled about having another scientist, but with the fact they were not consulted ahead of time. This is difficult to handle because, if the JCAE is consulted ahead of time, they could come up with a candidate which is unacceptable to the Administration.

Wednesday, March 13, 1963 - Germantown

At 9:40 a.m. I presided over Information Meeting 255 (notes attached). Ramey is raising questions as to the desirability of renewing the DuPont contract for the

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Congress of the United States

JOINT COMMITTEE ON ATOMIC ENERGY

March 8, 1963

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Dear Mr. President:

In connection with our discussion today concerning problems in the atomic energy field, I have had the attached notes prepared, summarizing the major planned activities of the Joint Committee on Atomic Energy, including our legislative program for the year. These notes also discuss a number of current substantive problem areas in atomic energy.

In addition I am setting forth in this letter what I consider to be the major problems we must face at this time.

The military applications of atomic energy, regrettably, but realistically, must continue to be the prime focus of the Committee's attention. Our brightest hopes for peaceful applications of atomic energy must, in the light of world conditions, be tempered by our overriding desire to prevent nuclear war and our corresponding concern for the development and control of nuclear weapons.

Among the specific problems in which we share a common interest with the Administration are:

1. What changes should be made in cooperative nuclear weapons arrangements with our NATO allies, to accommodate the demonstrated needs of the Alliance? Are the concepts of multi-lateral or multinational control consistent with our policy against the proliferation of nuclear weapons?
2. What are the advantages of sharing our nuclear submarine technology with our allies as compared to the risks of disclosing such information to our adversaries?

I recognize that neither the multilateral nor the multinational concept will solve the basic political problem we face; namely, the desire of our individual allies for complete national control over nuclear weapons. However, I believe that the multinational concept has the advantage of not creating new technical and operational problems.

With respect to the question of sharing nuclear submarine information, this country must be especially careful. The nuclear submarine, armed with Polaris missiles is, I believe, the first line of America's deterrent force today. Any proposal for the sharing of nuclear submarine information as a palliative measure to preserve the alliance, must be carefully weighed against our enlightened self-interest in preserving a Polaris submarine monopoly for the maximum time that technological advancement will permit.

On the question of a nuclear weapons test ban, if the current U. S. proposal were agreed to by the U.S.S.R., I would do all within my power to secure its ratification by the Senate. However, on the basis of informal discussions with other Senate leaders I am afraid that ratification of such a treaty could only be obtained with the greatest difficulty.

I personally have reservations as to whether such a treaty would be in the best interests of the United States at this time. This opinion is based upon expert testimony presented to the Joint Committee in a series of hearings over the past few weeks. It is obvious that our seismological systems are not capable of detecting certain nuclear tests, including a series of such tests within a range in which significant advancements could be made in the development of the all-fusion weapon.

Dr. John Foster, Director of the Livermore Laboratory and Dr. Norris Bradbury, Director of the Los Alamos Laboratory, in classified testimony before the Joint Committee, have described the significant advances which could be made in the field of nuclear weapons by nuclear tests in a range below our current detection capability. Testimony in 1961 by General Lemnitzer, then Chairman of the Joint Chiefs of Staff, and responsible representatives of each of the three

Services, emphasized the peril to our national security in the event these advancements were made unilaterally by the U.S.S.R. Dr. Harold Brown, in 1961, stated before the Joint Committee that he was almost certain these advancements could be accomplished. In fairness, Dr. Brown recently indicated in testimony before the Committee that his optimism had been somewhat tempered. However, he stated that such development was "still probable."

It is my earnest hope that this general outline of my views on the test ban issue will not be regarded as an expression of negativism. I am acutely aware of the fact that these momentous decisions, which are in the last analysis in the hands of the President, involve broad political and other considerations which must be weighed and balanced. However, since this matter is so basically dependent upon highly specialized technical knowledge, I strongly suggest that you may wish to arrange for direct consultation with the directors of our national weapons laboratories before reaching a final decision.

Another item in the military field which gives me concern is the history of the military's plutonium and uranium requirements in connection with the nuclear weapons program. The record indicates that production of these materials has remained virtually constant over the past several years and apparently equal to the Atomic Energy Commission's production capacity. This raises the question of whether the military's requirements are based on realistic needs or rather on the Atomic Energy Commission's available production capacity.

The Committee has been concerned about this problem for some time. I understand, through Dr. Seaborg, that the Commission is now planning to review this matter. I strongly urge a searching and exhaustive examination of this problem, since it involves an extremely significant expenditure of government funds. The Joint Committee stands ready to cooperate fully in the exploration of this problem to the extent of holding hearings should this prove necessary or desirable.

I know that I speak for my colleagues on the Joint Committee when I say that we are sincerely anxious to be helpful in the resolution of these problems. In this connection, it would be invaluable for Administration officials

to present their plans and ideas to the Committee at an early stage of formulation. Failure to proceed on this basis inevitably engenders some hostility. For example, representatives of the Arms Control and Disarmament Agency have periodically alerted members of the Committee to fundamental changes in our negotiating positions with the Soviet Union, but their contacts have, for the most part, amounted to notification of a fait accompli. Heavy criticism of the Administration has followed, particularly in connection with our offer to lower the number of on-site inspections without a corresponding accommodation by the U.S.S.R. Similarly, some of the critical reaction by the Joint Committee to Ambassador Livingston Merchant's presentation on the multilateral NATO force resulted from insufficient advance discussions with the Committee. I believe that such criticism can be minimized by joint consultation in advance of major policy decisions.

I firmly believe that it is possible to establish a fruitful partnership between the Executive and Legislative Branches that will materially assist in the solution of these problems. Our objective, in the last analysis, is identical; namely, the protection of the vital interests of the United States and its people at home and abroad. With this identity of purpose, I believe that the Executive and Legislative Branches can move together toward the achievement of mutually satisfactory solutions.

In the civilian atomic energy field, while the problems are not as pressing or dangerous, the United States nevertheless has a significant task ahead. I am concerned, in particular, about the future of the civilian nuclear power program.

The Democratic Party platform of 1960 pledged to "restore United States leadership in atomic development." The platform further pledged to "continue the development of the various promising experimental and prototype atomic power plants which show promise and provide increasing support for longer range projects at the frontiers of atomic energy application."

In my view, the Atomic Energy Commission's November 1962 report to you, Mr. President, on the civilian nuclear power program, if adopted and implemented, will fulfill in large measure the promise of the Democratic Party platform on atomic energy.

I believe that the Commission's report represents a thoughtful, well-balanced twelve year program designed to assure the availability of safe, economic and reliable nuclear power at that time in the future when our energy resources require supplementation.

During recent hearings before the Joint Committee on the "Development, Growth, and State of the Atomic Energy Industry," we were informed that the Administration had not endorsed the Atomic Energy Commission's proposed program. Dr. Seaborg could claim only "tacit acceptance" of the program as reflected in the proposed fiscal year 1964 AEC budget. Further, Dr. Wiesner informed the Committee that another study on research and development in all energy resource fields had been ordered.

I cannot question the need for an evaluation of our research and development effort in such fields as coal, oil and gas. However, according to the testimony of the witnesses before the Joint Committee last week, this evaluation would not appreciably affect the research and development program in atomic energy called for in the Commission's report on civilian nuclear power.

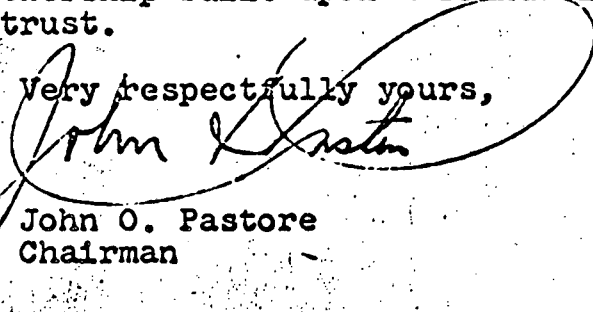
I therefore suggest that the Administration indicate its general endorsement of the program presented by the Atomic Energy Commission, at the earliest possible date. The atomic energy industry has been subject to exaggerated peaks and valleys of optimism and pessimism. This is an unhealthy condition which could be measurably relieved by Administration approval of the carefully paced and relatively modest program submitted by the AEC. Moreover, it would go far to relieve the tension between the Executive and Legislative Branches, which has characterized the civilian nuclear power program over the past ten years.

Such approval would not irrevocably commit the Administration to the Commission's program. Naturally, a periodic re-evaluation of the need for, and direction of, the program would certainly be appropriate. However, without an approved long range program, the development of atomic energy would necessarily have to "limp along" uncertainly on a year-to-year basis. The result would be to impair the confidence of the AEC and the industry and to fail to win the race to competitive atomic power which you described during the

campaign as "a victory which can have a more profound effect throughout the world than the Soviet sputnik or missile to the moon."

In closing, Mr. President, I should like to restate the philosophy which has guided me in the preparation of this report. I am firmly committed to a policy of seeking solutions for all problems in the atomic energy field in a true spirit of partnership between the Executive and Legislative Branches. I hope that during my tenure as Chairman of the Joint Committee I may play some role in nurturing such a cooperative partnership built upon a foundation of mutual respect and trust.

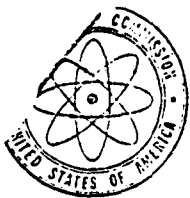
Very respectfully yours,



John O. Pastore
Chairman

The President
The White House

Enclosure:
Selected Notes on
Atomic Energy



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NOV 86

COPY NO. 15

March 13, 1963

INFORMATION MEETING 255

9:40 a.m. Wednesday, March 13, 1963 - Chairman's Conference Room A-457

1. Appendix to Civilian Nuclear Power Report (GAC Subcommittee Report)

The GAC report is to be included in the material transmitted to other interested agencies and in the published appendices. (Clark)

2. AEC 262/112 - DuPont Contract (see Mr. Ramey's Memorandum of March 12)

The Commissioner's agreed to discuss policy question raised in Mr. Ramey's memorandum with key staff this afternoon.

✓ 3. Proposed Letter to Mr. Bundy re Plutonium Production Level

To be circulated to the Commissioners for consideration after this morning's briefing. (Betts/Brown)

Let
ms
see
TS - do not
see
per HTS
4. Chairman's Memorandum to General Manager re Laboratory for Nuclear Space Propulsion

The Chairman noted he is sending the General Manager a follow-on memorandum from the meeting with NASA officials. (Brown)

5. Memorandum to General Manager and Director of Regulation re Liaison with Department of Interior

The Chairman said he would send a follow-on memorandum from the meeting with Secretary Udall. (Brown)

6. Communication of Weapons Information

The Chairman discussed briefly General Betts' memorandum to the field.

7. AEC Contract with Washington Public Power Supply System

The Commission affirmed the decision and the Chairman said he would sign the letter. (Brown/GC)

8. Lawrence Award Ceremony

I will discuss with the Chairman's staff additions to the guest list.

9. AEC-DOD Announcement re Rocket Firings

The Commissioners have no objection to the General Manager's recommendation.

10. Congressional Letters re Location of Science Institute at Brookhaven Laboratory

The Commissioners requested the staff review. (English)

11. Chairman's April 29 Address at University of Massachusetts, Amherst, Massachusetts

The Chairman invited Mr. Ramey to accompany him.

12. Civilian Defense Research

Mr. Ramey suggested, and the Chairman agreed, this matter should be reviewed with the staff. (English)

13. Letter to Mr. William E. Warne, Resources Agency of California

The Chairman requested preparation of a letter indicating the AEC interest in the Agency's plans and consideration of letters to other utility groups with whom the Commission has met. (Pittman)

14. Commissioners' Meeting with Secretary Udall Yesterday

The Chairman requested staff consideration of a memorandum of liaison with Department of Interior on the matters raised in the meeting and appropriate letter to Director of the Bureau of the Budget, Mr. Kermit Gordon. (Pittman/Lowenstein)

15. Notes of Commissioners' Meetings with Utility Groups

The Commissioners requested preparation of appropriate notes and letters. (Pittman/Secy)

PRESENT

Dr. Seaborg
Dr. Haworth
Mr. Ramey
General Luedecke
Mr. Hollingsworth
Mr. Ferguson
Mr. Brown
Mr. McCool

DISTRIBUTION

Commissioners
General Manager
General Counsel
Secretary

W. B. McCool
Secretary

operation of the Savannah River plant on the basis that the contractors should, if possible, be in the civilian nuclear business.

The Commission was briefed by the staff on the effect of the projected cutback of plutonium production on the operation of production reactors. Apparently a huge decrease in production, involving the shutdown of reactors at Hanford and Savannah, will be required within a few years.

I had lunch with Finger and Haworth to discuss problems in the ROVER program, on the basis of Monday's meeting with Webb, et al.

At 2:30 p.m. I presided at Commission Meeting 1916 (action summary attached). The Commission decided to submit legislation authorizing money (\$11 million) to build municipal facilities for a Nevada community on the basis that it can be located at any of the proposed sites. The location will be decided by determining which best meets the criteria.

I attended a reception and dinner of the Business Council in the Chinese Room of the Mayflower Hotel. I sat with Roger Blough, Juan Trippe, Fred Kappel (Chairman, AT&T) and Lauris Norstad. I met many friends such as Clark Beise, Charles Thomas, Steve Bechtel, Edgar Queeny, Dean Mallot and T. S. Petersen (Standard Oil). Norstad spoke: he said that DeGaulle believes the Nassau Agreement was a deliberate attempt at deception; that NATO will, however, survive; England will join the Common Market; and that hope for peace lies in sane arms limitation through control and inspection.

Thursday, March 14, 1963 - D.C. - Richland, Washington

I attended a luncheon of the Business Council in the Crystal Room of the Sheraton-Carlton Hotel, where I gave an extemporaneous talk on, "The Impact of the Atomic Energy Program." Fred Kappel, Chairman of the Council, introduced me. He said I was the best chairman the AEC has had. My talk was well received by the group which included Steve D. Bechtel, Clark Beise, George Brown, Walker Cisler, Ralph Cordiner, Crawford H. Greenewalt, Neil McElroy, Dave Packard and R. S. Reynolds, Jr.

I wrote to Professor Arthur W. Fairhall, University of Washington, to recommend Bob Vandenbosch for a position in their Department of Chemistry.

Accompanied by Senator Jackson, Commissioner Ramey, John Conway and Arnie Fritsch, I left for Hanford, leaving National Airport on the Northwest flight 85 at 6:15 p.m. and arrived at Spokane, Washington, at 11:30 p.m. From Spokane we flew in General Electric's Beechcraft to Richland, arriving at 1 a.m. (March 15th). We checked in at the Desert Inn.

Friday, March 15, 1963 - Richland - Seattle

We all had breakfast with the members of the Tri-City Nuclear Industrial Council including Glenn Lee (Editor, Tri-City Herald), R. F. Philip (President of the Council), J. C. Stricker (Vice President of the Council), Tom Black, H. H. Davis, W. K. MacCready, Sam Volpentest and Fred Warren (the Council's consultant in Washington). Others present included J. E. Travis (Manager, Richland Operations Office), A. M. Waggener, P. G. Holsted, L. R. Fink, T. R. Clark and W. E. Johnson (General Electric, in charge of Hanford). I said that the possibility of cooperation between Hanford and the universities is good but other plans offer difficulties. Jackson suggested a three-group Task Force: 1. G.E.-AEC, 2. DOD-NASA and 3. retired industrialists. We must look for diversification in case plutonium production drops. I hinted this might happen.

UNITED STATES GOVERNMENT

Memorandum

DECL. BY DOE
NOV 86

TO : A. R. Luedcke, General Manager

DATE: March 14, 1963

FROM : W. B. McCool, Secretary

Approved *R. E. Hollingsworth*

Date 3/18/63

R. E. Hollingsworth
Acting General Manager

SUBJECT: ACTION SUMMARY OF MEETING 1916, WEDNESDAY, MARCH 13, 1963, 2:35 P.M.,
ROOM A-410, GERMANTOWN, MARYLAND

SECY:JFG

Commission Business

1. Meeting of Staff with BOB Re Private Ownership Legislation

The Commission approved the proposed statement as revised.
(Ink)

2. AEC 1123/3 - Nevada Test Site Community AEC 1123/5 - Supplement to AEC 1123/3

Approved, as revised.

The Commission requested the letter to Mr. Bell as contained in 1123/5 be revised to reflect factors such as location, support facilities etc. and appropriate revisions in the 2nd paragraph of the letter. (Cloch)

3. AEC 1123/4 - Proposed Legislation to Provide a Community for Nevada Test Site

Approved, as revised.

The Chairman requested efforts be made to thoroughly acquaint the JCAE with the proposed legislative provisions. (Cloch)

4. AEC 363/1 - Heavy Water and Uranium on Loan to Canada

Approved. (Wells)

5. AEC 974/3 - Availability of High Energy Uranium Fuel for Proposed German Power Reactor

Discussed.

The Commission requested a short summary on present and projected weapons implications through use of highly enriched fuels for power reactors abroad.

Following this, the White House should be appraised of the technical desirability and political implications of actions such as this. (Wells-Betts)

3.2.11.1.3

6. 1084/11 - Proposed Revision of AEC Manual Chapter 4124
"Conduct of Employees"

Approved, as revised.

The Commission requested:

- (1) former employees not be required to carry a certificate.
- (2) problems associated with a life-time bar be compiled for possible submission to the JCAE looking to possible legislative relief.
- (3) possible presentation to the JCAE of regulations proposing extension of the one year bar to two years. (Traynor-Schur)

7. AEC 1099/3 - Amendment to Charter of the Labor-Management Advisory Committee

Deferred.

8. AEC 262/112 - Proposed Extension of Contract with E. I. duPont de Nemours & Company

Deferred.

9. Agenda for week of March 18, 1963

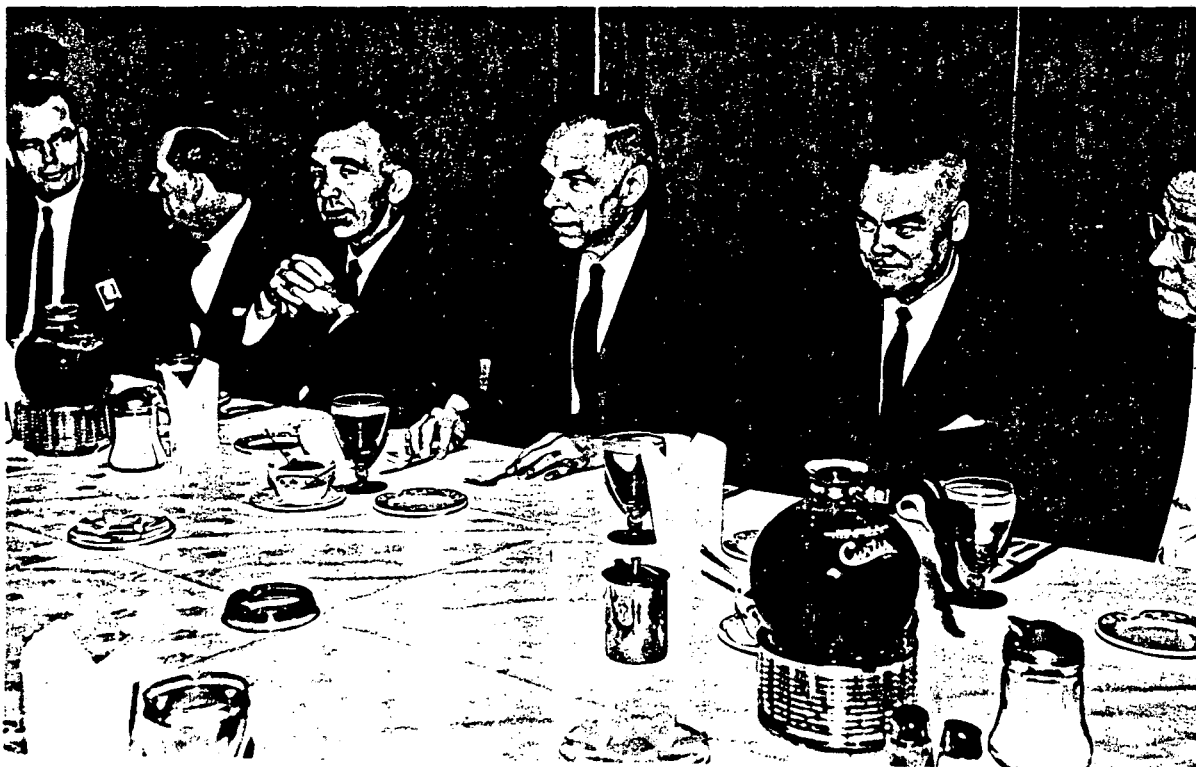
Approved, as revised.

Item of Information

Proposed Material for Use in Hanford Visit

cc:
Commissioners

Visit of Seaborg and Group to Hanford, Washington, March 15, 1963



L to R: Fink, Senator Jackson, R. F. Philips (President of Tri-City Nuclear Council), Seaborg, Glenn Lee (Publisher, Tri City Herald), Ramey



L to R: Fink, Luedecke, Seaborg, Jackson, Ramey, Bloch, Johnson

We toured the Hanford Plant and in the morning visited the Biology Laboratory, the NPR, the Weapons Development Facility (231 Building), the Weapons Fabrication Facility (234-5 Building), the Chemical Separation area (200-E area), and the Administration Building in the 3760 Building Conference Room (where we had lunch). After lunch Fred Albaugh and W. H. Reas showed us through the Ceramics and Radiochemistry Laboratories (Building 325). These laboratories are very good. We were also given a tour of the Plutonium Recycle Facility (309 Building).

Senator Jackson and I held a press conference in Room 151 at the Desert Inn. We had local press and TV coverage.

Fritsch and I then flew to Seattle from Pasco. We left at 9:30 p.m. on West Coast flight 785 and arrived at 11 p.m.

I spent the night at the Olympic Hotel.

Saturday, March 16, 1963 - Seattle - Tacoma, Washington

Fritsch and I visited President Charles Odegaard and Dean Joseph McCarthy of the University of Washington and afterward had lunch at Odegaard's home. We discussed the Hanford-University of Washington cooperation and worked out a plan.

After lunch with Dean McCarthy, we visited the Pacific Science Center (of which I am a Trustee) and at 2:30 p.m. I held a press conference attended by TV and local press reporters.

Fritsch and I were driven to Tacoma by Professor Phil R. Fehlandt of the University of Puget Sound. After dinner, at a meeting in the Doric Motor Hotel, I addressed the 75th Anniversary Symposium of the University of Puget Sound. My talk, "Past, Present, Future Impact of Science," was well received by a packed audience at Jones Hall.

I spent the night at the Doric Motor Hotel.

Fritsch left to return to Washington, D.C.

Sunday, March 17, 1963 - Tacoma - Seattle - San Francisco

I attended a luncheon in the Student Union building which was hosted by President R. Franklin Thompson of the University of Puget Sound for the visiting dignitaries to the 75th Anniversary Symposium.

I recorded an interview on Plowshare with Murray Morgan of Radio Station KMO (1360 K.C.) for use at 7:30 a.m. on Monday morning.

I attended a luncheon for the Delegates to the Convocation in the Student Center.

At 3 p.m. I attended the 75th Anniversary Convocation of the University of Puget Sound where I received a Doctor of Public Administration Honorary Degree. Chancellor William Tolley of the University of Syracuse was the main speaker. Dean John D. Register presented Tolley and me our honorary degrees.

I flew to San Francisco on Western Airlines flight 637, which left at 7 p.m. and arrived at 8:30 p.m. Ken Street met me in San Francisco.

I stayed at the Palace Hotel and had dinner with Street and Dan Wilkes. Street told me he is worried about the way Los Alamos handled ROVER and he thinks Livermore should be brought in to help. I see this as a difficult situation because of the attitude of Los Alamos toward Livermore.



75th Anniversary Convocation, University of Puget Sound,
Tacoma, Washington, March 17, 1963

L to R: John D. Regester (Dean of Graduate School, University
of Puget Sound), Seaborg, R. Franklin Thompson
(President, University of Puget Sound)

Monday, March 18, 1963 - San Francisco - Chicago

Ben Draper (California Academy of Sciences) picked me up at the hotel and drove me to Radio Station KXXK-FM, where at 9 a.m. I recorded a thirty-minute interview on the discovery of Plutonium.

I then went to KRON-TV Studio (929 Mission Street) where I rehearsed and taped the 500th Science in Action show, "The Coming of Age of Science," with Earl Herald. Just before the taping I attended a luncheon commemorating the 500th show which will be issued on Monday, April 8th. Others attending the taping were Lester B. Johnson (President, Wells Fargo Bank--the show's sponsor), Robert C. Miller (California Academy of Sciences), Ben Draper (Executive Producer, Science in Action), plus all who have worked on the "Science in Action" show.

I then taped three spot-interview responses on basic research, scientific literacy and the use of lasers for use on the March 31st, KRON-TV program, "The Invisible Wall," for Don Heath.

I flew to Chicago on American flight 960 which left at 7:30 p.m. and arrived at 1 a.m., March 19th. I stayed at the O'Hare Inn.

Tuesday, March 19, 1963 - Chicago - Washington, D.C.

I flew to Baltimore on United flight 852 which left at 7:15 a.m. and arrived at 9:50 a.m. I was met and driven to the D.C. office by Jim Haddow.

I found that serious difficulties have developed over whether a Wyoming or a Texas contractor should drill test holes in Nevada. The original bids were mistakenly invited by the Nevada AEC office. Howard Brown handled the situation well but we haven't heard the last of it.

At 2 p.m. I presided at Information Meeting 256 (notes attached).

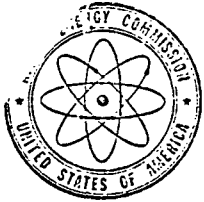
John Finney apparently is ready to break the story of Haworth's and Tape's appointments tomorrow. By now this should have been announced by the White House which I feel is handling it poorly.

Jerry Johnson came to see me to tell me he is leaving his position as Chairman of the Military Liaison Committee this summer to return to the Livermore Laboratory. His leaving will be a terrible loss for he has been a great help to the AEC in advancing the cause of civilian control.

Wednesday, March 20, 1963 - Germantown

At 10 a.m. I presided over Information Meeting 257 (notes attached). We noted letters from Rusk and Gilpatric to Bundy (copies attached) agreeing with my letter to Bundy of March 11th that suggested Johnson Island as the site of the next series of atmospheric tests. Rusk also agrees that preparation for such a series (plus readiness during any test ban) must be publicly known.

I received a letter (copy attached) from Senator Pastore inquiring about the status of the plans to retain Rickover and suggesting that Korth and I see him and other members of the Joint Committee on this. At 6:05 p.m. I called Korth who said he has been too busy with the TFX case to do anything about Rickover since our last telephone conversation. However, he said he had calls today from three Congressmen and two Senators regarding Rickover. I told Korth about the letter I received from Pastore and that I have an appointment to see Pastore at 2 p.m. tomorrow. Korth said he will be happy to join us.



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

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NOV 88

COPY NO. 15

March 19, 1963

INFORMATION MEETING 256

2:05 p.m., Tuesday, March 19, 1963 - Chairman's Conference Room, D.C.

1. Chairman's Report on Visit to Hanford
2. Mr. Howard Simons' Query re Harvard Contract

In response to Mr. Ink's report, the Commissioners suggested Mr. Vinciguerra discuss the matter with Mr. Simons and suggest Dr. Haworth's availability for further discussion if it would be helpful to Mr. Simons. Additionally, the Chairman requested, in response to the problem discussed with him by Dr. Fidler, an early review of the policy re non-Soviet Bloc national visits to AEC laboratories. (Ink-Traynor)

3. Chairman's Meeting Thursday Afternoon with Joint Committee Members to Discuss NTS Community

The Chairman noted he will see Senator Anderson and Congressman Morris on Thursday and suggested Mr. Ramey and other Commissioners and appropriate staff attend with him. (Ink)

4. Proposed Statement on Results of the 1962 Test Series

The Chairman requested development of a more substantive statement on an urgent basis. (Ink) *attached on April 15 - Derry's Records*

5. March 11 Letter from Edward A. McDermott, Office of Emergency Planning (Circulated as AEC 540/68)

Noted for staff review. (Derry)

6. March 15 Memorandum from Mr. Robb and Report "Role of Nuclear Power in the Merchant Marine"

The Chairman suggested the Commissioners review the report. He also requested preparation of a summary of the report for transmittal to the Bureau of the Budget with reference to the present funding allocation of the follow-on program. (Brown-English)

7. General Counsel's March 7 Resume of Pending Legislation

In response to the Chairman's comment, Mr. Ferguson said he would prepare recommendations on those bills on which it would be appropriate for the AEC to comment. (GC)

8. Draft Report by Dr. Harold Knapp re Iodine 131 Deposition

Dr. Haworth discussed briefly the need for a review of the report, and the Commissioners agreed that an early technical assessment should be made by a special committee including representatives of Livermore Laboratory. Additionally, plans for a research program on iodine at Livermore Laboratory should be undertaken. (Ink-English)

9. Letter from Ambassador Finletter re Commissioner Palfrey's Participation in the European Survey

The Chairman noted the Ambassador's letter of appreciation, and Mr. Palfrey added that he will discuss the survey with the Joint Committee staff at four o'clock today.

10. Joint Committee March 14 Letter requesting Comments on Mr. Lillienthal's Lecture Of February 19 at Princeton University

The Chairman requested preparation of a review by staff for the Commissioners in anticipation of a response by the General Manager. (Pittman)

11. Status of the SNAP 4 Program

Mr. Ink suggested, and the Commissioners agreed, they should discuss this matter with staff at an early date. (Sec'y)

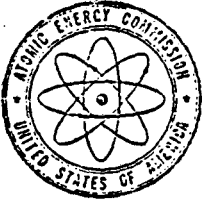
Present

Dr. Seaborg Mr. Ink
Dr. Haworth Mr. Brown
Mr. Palfrey Mr. Ferguson
 Mr. McCool

Distribution

Commissioners
General Manager
General Counsel
Secretary

W. B. McCool
Secretary



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

COPY NO. 15

March 20, 1963

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NOV 86

INFORMATION MEETING 257

9:55 a.m. Wednesday, March 20, 1963 - Chairman's Conference Room, A-457

1. John Finney's Article re Commissioner Haworth's Appointment as Director, National Science Foundation
2. Commissioner Haworth's March 15 Memorandum re Meeting on the U.S.S. ENTERPRISE

The Chairman took note of Dr. Haworth's memorandum discussing the problem of designating the meeting as a formal Commission meeting, and the Commissioners agreed it should be recorded as an informal meeting. (Sec'y)

3. Commissioner Haworth's March 15 Memorandum re Definition of Nuclear Tests
4. Secretary of State's March 16 Letter re Test Planning

The Chairman noted the Secretary's letter concludes that it is desirable to use Johnston Island.

5. Joint AEC-DOD Letter to the President re Weapons Development

The Chairman said Dr. Gerald Johnson had discussed with him the DOD March 6 letter regarding a requirement, and the Commissioners discussed briefly their thinking on this matter. It was agreed a draft joint letter to the President will be prepared for review with Dr. Haworth and discussion with the Department of Defense. (Brown-Betts)

6. Proposed Letter to Mr. Bundy re Underground Test Program for FY 1964

The Chairman noted the letter has been circulated and should be reviewed for early discussion.

7. DOD March 16 Memorandum to the President re Dispersal (circulated as AEC 867/72)

The Commissioners discussed at some length the request and the situation with respect to a Commission determination on this matter. The staff will prepare an appropriate letter to the President. (GC-Betts)

8. March 14 Letter from Sir Roger Makins re U.K. Agreement on Use of Plutonium

The Chairman requested preparation of an interim reply and staff review of the legislative history of the military bilateral agreement and recommendation on the appropriate means of notifying the Joint Committee. (GC-Wells-Betts)

9. BOB March 15 Letter Approving AEC's Proposed Private Ownership Legislation

Noted.

10. Letter to the President re DX Priority on PAL Program

The Chairman said he would sign the letter today subject to any comments by the Commissioners. (Brown)

11. Ambassador Tutthill's (EURATOM) Visit the Week of April 8

The Chairman said he and the Commissioners will be pleased to see the Ambassador and requested preparation of a letter to him. (Wells)

12. Mr. Wells' March 15 Memorandum re Agreement with the U.K. on Use of Holy Loch

Noted for review.

13. Chairman's Thursday Afternoon Meeting with Senator Anderson and Congressman Morris to Discuss NTS Community

Commissioner Ramey and staff will accompany the Chairman.

14. Chairman's March 16 Discussion with University of Washington Officials re Campus Space for Radiological Sciences Research Program

The Chairman discussed briefly the problem raised by President Odgaard and Dean McCarthy regarding the need for additional space on campus for the radiological sciences research program as related to the AEC work now being carried out by Mr. Donaldson. The Chairman will discuss the matter with Dr. Dunham. (Brown)

15. Commissioner Palfrey's March 19 Meeting with Senator Pastore and Joint Committee Staff

Commissioner Palfrey said he, Colonel-General Crowson, and Mr. Abram Chayes (Dept. of State) had discussed briefly with Joint Committee representatives their impressions of the Merchant Survey and he considered the discussion quite useful.

16. Appointment of Mr. Robert Underhill as Consultant to the Commission

Commissioner Ramey said he had discussed briefly with Mr. Underhill the possibility of Mr. Underhill's availability as a consultant and while it appeared that he would not have much available time, the possibility has been discussed with the General Manager.

17. Special Hanford Study

Noted by the Chairman.

18. Civil Defense Research

Commissioner Ramey said he had at the recent GAC meeting in Los Alamos discussed with Dr. Wigner the Commission's recent meeting with Mr. Steuart Pittman, Office of Civil Defense, and the possibility of the use of the Sandia Corporation in this area. Sandia representatives will be invited to the Woods Hole Seminar this summer.

19. Mr. Ramey's Attendance at ROVER Discussion at Los Alamos

20. Nevada Operations Office

The Commissioners agreed it would be desirable for a Commissioner or Commissioners to visit the office at an early date.

The Chairman said he would call Senator Cannon today with information on the labor situation. (Brown)

21. Third Rare Earth Conference

The Chairman discussed briefly the problem raised by the plans for the Conference to be held in the Bahamas and requested preparation of a letter for his signature. (McDaniel)

22. Newsmen's Visit to SEDAN Crater

The Commission had no objection to Mr. Ink's recommendation. The matter is to be cleared with the White House. (Ink)

23. AEC-DOD Discussions Tomorrow re Channels of Communication of Classified Information to SACEUR

Mr. Ink noted the meeting tomorrow to develop agreed procedures and, at Mr. Ramey's suggestion, said an appropriate letter will be prepared. (Ink-Betts-GC)

24. Amendment to the Agreement with NATO

Mr. Ramey requested recommendations for early consideration looking to Congressional review during this session of Congress. (Ink-GC-Wells)

Present

Dr. Seaborg
Dr. Haworth*
Mr. Palfrey
Mr. Ramey

Mr. Hollingsworth
Mr. Ink
Mr. Ferguson
Mr. Brown
Mr. McCool

Distribution

Commissioners
General Manager
General Counsel
Secretary

W. B. McCool
Secretary

*Partial Attendance

BUNDY, McGEORGE. ?

UNCL. BY 802

3/20/63

d. m. l. v.
State

THE SECRETARY OF STATE

WASHINGTON

MAR 16 1953

Dear Mac:

(attached m3/s)

In your letter of March 5 to Chairman Seaborg you suggest that we might plan on using only U. S. facilities in any future atmospheric test series in the Pacific. I entirely agree. Our freedom of action would almost certainly be limited if we have to rely on the use of Christmas Island. Consequently, it would seem desirable that the Atomic Energy Commission devise means of utilizing Johnston Island and ship-based facilities in the next atmospheric nuclear weapon test series. We continue to believe that the Trust Territory should not be used for testing purposes.

With respect to the effect of preparations on the test ban negotiations, I do not think any alteration is necessary in the normal procedures for preparing another nuclear test series in the atmosphere. We can certainly anticipate that the Soviet Union will agitate against the preparations for another test series but I would not be worried by this. I do not believe we should flaunt our preparations for nuclear tests but I am inclined to think that if the fact that we are getting ready to test becomes known, this might do more to spur on the test ban negotiations than would any indication of concern about Soviet complaints about these preparations. We can also expect complaints from certain other countries in the UN and elsewhere if our preparations become known, but we do not believe this fact should interfere with our plans.

Naturally, if a test ban treaty is signed and ratified before another atmospheric test series is ready, our scale of preparations would have to be completely different. I

The Honorable McGeorge Bundy,
Special Assistant to the President,
The White House.

firmly believe that it would be of the highest importance to remain prepared for a resumption of nuclear tests even though a test ban treaty were in effect. Moreover, we should make it quite clear to all concerned that this is our national policy. It should also be public knowledge, however, that these preparations for resumption of testing are purely a form of insurance against a repetition of the Soviet behavior during the 1958-61 moratorium period. We should take pains to ensure that no one misconstrues our preparations as an indication of our intention to resume testing imminently. This implies, in my view, a state of readiness which would permit us to resume useful weapons tests within a matter of a few months from any given date.

In the event it appeared a treaty was about to be signed at any time in the future, we should be sure that we are agreed within the Government as to the level of readiness we intend to maintain. There may be value in having the Defense Department and the AEC explore this with the Arms Control and Disarmament Agency.

The Arms Control and Disarmament Agency concurs in this letter.

Sincerely,

Dean Rusk

Dean Rusk

S/S-70

A true copy of signed original

297

c.c. ACDA, S, SIB, R

3/20/63

THE DEPUTY SECRETARY OF DEFENSE
WASHINGTON 25, D.C.

14 MAR 1963

Dear Mac:

Reference is made to your letter of 5 March in response to Dr. Seaberg's letter of 21 February on the subject of planning and preparation for future atmospheric testing.

We are proceeding, on our own best judgment, with forward planning for possible future tests. We recognize the uncertainties as to our freedom to conduct tests at Christmas Island at times of our own choosing and, therefore, are directing our planning on the basis of using the Vandenberg, Hawaii, Johnston complex with air-borne and shipborne test platforms.

Although we have given our general concurrence to Dr. Seaberg's reply of 11 March, we do plan to furnish you, in considerable detail, our funding information on the specific scientific programs. With this in mind, I have asked the Defense Atomic Support Agency to give me the best information available as follows:

a. Assume that we adhere to the target dates proposed in Dr. Seaberg's letter with preparation activities to include the letting of contracts for the procurement of long lead time items, construction and site preparations, laboratory preparations, and the certification of test operations such as socket strings, tracking system check outs, etc. To plan, prepare and execute on the basis of this assumption, what expenditures would be required for each of the proposed scientific programs? These proposed expenditures should be indicated on a quarterly basis identified as DoD or AEC, as appropriate.

b. Using the same assumption as in a above with the exception of placing a "hold" on final activities prior to major TASK FORCE deployment to the forward area (estimated to be D-60 days), what would be the expenditures by program to this hold date?

c. Does the AEC or DoD contemplate any improvement work on Johnston Island as well as Christmas?

Sincerely,

Signed
ROSWELL L. GILPATRICK
Deputy Secretary of Defense

Honorable McGeorge Bundy
Special Assistant to the President
for National Security Affairs
The White House

CHAIRMAN
RICHARD B. RUSSELL, GA.
CLINTON W. ANDERSON, N. MEX.
ALBERT GORL, TENN.
HENRY M. JACKSON, WASH.
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EVERETT MCKINLEY DIRKSEN, ILL.
JOHN T. CONWAY, EXECUTIVE DIRECTOR

GT FILE

Congress of the United States
JOINT COMMITTEE ON ATOMIC ENERGY

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JACK WESTLAND, WASH.
JOHN B. ANDERSON, ILL.

March 19, 1963

UNCL. BY DOE
NOV 86

Dr. Glenn T. Seaborg
Chairman
Atomic Energy Commission
Washington 25, D. C.

Dear Glenn:

One of the things that remains with me since we had our breakfast a short while ago is the discussion we had with reference to Admiral Rickover. I know that the Admiral's future and what this means to the nuclear ship program is uppermost in the minds of all the Members of the Joint Committee.

Soon after our breakfast, the President invited me to the White House to discuss with him the overall atomic program. I would suppose that by this time a copy of the memorandum I left with him is already in your hands. I say this because under date of March 13, the President wrote to me and advised me that he had passed my comments on to the Atomic Energy Commission, Department of Defense, and the Bureau of the Budget for their information. Consequently, I assume that this matter has already been brought to your attention.

But the point that I make is that included in my memorandum was a discussion of the Rickover matter. You will recall that when you talked to me you indicated that Secretary Korth was making arrangements to retain Rickover. I wasn't too sure at the time whether Admiral Rickover was to be retained in a civilian capacity or as a member of the United States Navy. Now, if he is to be retained in a civilian capacity, which I highly recommend, I wonder how this will affect his organization and whether or not any legislation may be necessary to achieve this.

Dr. Glenn T. Seaborg
March 19, 1963
Page 2

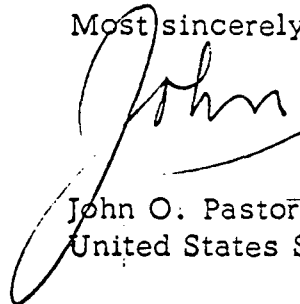
The reason why I say this is because you urged me not to precipitate any legislation with regard to this matter and, as a matter of fact, we left the discussion of this matter with the assurance that you would talk to Scoop Jackson.

I realize that you have been quite busy since then, but these rumors do persist, editorials are being written (SATURDAY EVENING POST, March 16, 1963), and I am very much afraid that unless we resolve this problem the agitation will increase in intensity and, as you well know, nothing ever gets done properly in a state of excitement.

It might not be a bad idea if you sat down with me, Clint Anderson, Chet Holifield, Mel Price, Scoop Jackson and the Secretary of the Navy, if necessary, so as to get this whole matter in proper prospectus because, as you well know, I am one of those who believes that through quiet diplomacy a great deal more is achieved than front page publicity.

With sentiments of esteem and affection, I am,

Most sincerely,



John O. Pastore
United States Senator

JOP:ls

We received official approval from Philip Hughes of the BOB for AEC private ownership legislation.

Haworth's coming appointment to the National Science Foundation appeared in the West Coast edition of the New York Times today. His and Tape's appointments will be announced officially tomorrow by the White House. It is unfortunate that this took so long; it was ineptly handled (by Dungan and others).

I sent a letter to President Kennedy (copy attached) requesting the highest (DX) procurement priority for work on the installation of permissive devices on weapons.

I wrote to Haakon Romnes (President, Western Electric) (copy of letter attached) praising their accomplishment in the direction of Sandia and asking them to accept a renewed contract in response to his request of March 8, 1963.

The State Department received a cable from Ambassador Foy Kohler (U.S. Ambassador to the Soviet Union) saying that the Soviet State Committee on the Peaceful Uses of Atomic Energy welcomes my visit in May or June, whichever is convenient for me.

I received a letter from Sir Roger Makins (copy attached) saying that the U.K. will grant the U.S. permission to use plutonium under the Military Barter Agreement for civilian purposes.

At 12 noon I presided over Commission Meeting 1917 (action summary attached).

Thursday, March 21, 1963 - D.C.

Howard Brown, Oscar Smith and I went to Senator Alan Bible's office in the Old Senate Office Building to meet with him and Senator Howard Cannon regarding labor troubles in Nevada which seem to give them great difficulties. I said that we will look for a compromise solution after we receive a report from the Nevada Test and Space Site Labor Construction Board, which is meeting tomorrow. The main issue is travel time pay, which labor wants in addition to subsistence pay and which many believe is an uneconomic practice.

At 2 p.m. I met with Secretary Korth, Senator Pastore (in his office), Senator Anderson, Congressmen Holifield and Price, Commissioner Ramey and Howard Brown to discuss Rickover's future. Korth promised to handle it in such a way that legislation will not be necessary. Rickover's right to choose and train Navy submarine personnel is the big issue. We recognize that Rickover regards any of the four civilians on his staff (Rockwell, Panoff, Leighton and Mandel) as qualified to succeed him, but he doesn't want to choose a Deputy now. We agreed he must do so and the choice of a naval officer would be preferable.

The meeting continued, without Korth but with Dwight Ink and Clarence Ohlke, to discuss the community in Nevada. We succeeded in convincing the group that the AEC plan for legislation to authorize only municipal facilities (at an approximate cost of \$11 million) is the best approach. Originally some wanted the government to build houses as well as municipal facilities and some wanted no community at all.

Ramey and I talked to Anderson about Livermore helping Los Alamos on ROVER and he agreed to support us on this. (Howard Brown's memorandum on the Rickover portion of the meeting is attached.)

I visited Senator Hickenlooper to invite him to accompany me to Ames, Iowa, for a reactor dedication on May 3rd. He said he would like to do this, but his schedule may not permit.

CROSS REFERENCE SHEET

Document #
901765

TITLE OF DOCUMENT Project PAL, 3/20/63, one page
Seaborg to the President.

This document requires further classification review and has been removed from this folder.

Jeffrey B. Lala
Name

August 22, 1986
Date

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MAR 20 1963

ENCL. BY DOE
NOV 86

Dear Mr. Romnes:

The Atomic Energy Commission's contract for the operation of the Sandia facility expires the end of this year. The Commission recently authorized the negotiation of an additional five-year extension of the contract with the Sandia Corporation.

It is the purpose of this letter to pass on to you the Commission's appreciation for the very fine performance by the Sandia Corporation during the preceding years. The cooperative attitude of the Sandia Corporation, as well as the close support furnished by Western Electric and the Bell Telephone Laboratories, in the performance of a technically complex and extensive program has made a real contribution to our weapons program. It is our hope that the Sandia Corporation will be willing to continue the management of this very important activity.

Sincerely yours,

(Signed) Glenn T. Seaborg

Chairman

Mr. H. I. Romnes, President
Western Electric Company
195 Broadway
New York 7, New York

cc: Gen. K. F. Hertford, Manager
USAEC, Albuquerque Operations Office

Mr. S. P. Schwartz, President
Sandia Corporation

bcc: Chairman (2)

GM
AGMO
SEC (2)
OGC
DMA

3/20/63

OFFICE DIARY
GLENN T. SEABORG
Chr USAEC, 1961-72
FOLDER-PAGE 027140

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DOCUMENT TITLE Ltr. UKAEA, makins To AEC, Seaborg

Dated 3/14/63 " you Asked me Sometime

ago . . . "
0901767

This document has been determined to be NOT DECLASSIFIABLE and has been removed from this folder.

W. French
Name

7/22/87
Date

Reference Ltr. British Defence Staff
To DOE, OC Gilbert dated 6/25/87

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027140

UNITED STATES GOVERNMENT

Memorandum

UNCL. BY DOE
NOV 86

TO : R. W. Hollingsworth, Acting
General Manager

DATE: March 20, 1963
Approved R.E. Hollingsworth
Date 3/21/63

FROM : W. B. McCool, Secretary

SUBJECT: ACTION SUMMARY OF MEETING 1917, WEDNESDAY, MARCH 20, 1963,
12:00 NOON, ROOM A-410, GERMANTOWN, MARYLAND

SECY:MK

Commission Business

1. February 27 Report by the Division of Inspection-Parallel Procedures

Discussed.

The Commission agreed that consideration of the Report could be deferred pending completion of survey of AEC owned reactors. (Nelson)

2. AEC 25/252 - Proposed Safety Rules

Approved. (Betts)

3. AEC 25/253 - Proposed Safety Rules

Approved. (Betts)

4. AEC 85/51 - Emergency Transfer Plan

Approved. (Betts)

The Commission requested preparation of an appropriate letter to the President. (Betts)

5. AEC 604/75 - Proposed Letter to Chairman, Federal Radiation Council, in Response to Draft Statement, "Council Policy Regarding Iodine Fallout"

Discussed.

The Commission requested preparation of a policy statement in accordance with the discussion at the Meeting. (Western/Woodruff)

The Commission also requested the proposed letter be condensed and incorporate an appropriate policy statement for Commission review during the week of March 25. (Western/Woodruff)

6. Status Report on SNAP-4 Program

The Chairman said the Commissioners would review pertinent background material looking to further consideration of the matter.

7. Resolution Re Commissioner Wilson's 70th Birthday

Approved. (Secretary)

cc:
Commissioners

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

UNCL. BY DOE
NOV 86

878 3/26/63

OFFICE OF THE CHAIRMAN

March 22, 1963

MEMORANDUM FOR THE FILES:

Chairman Seaborg met informally with Senator Pastore on Thursday afternoon, March 21st, at 2:00 PM, in the Senator's office, to discuss Admiral Rickover's future. Also present were:-

Secretary of the Navy Korth
Senator Anderson
Representative Holifield
Representative Price
Commissioner Ramey
John Conway
Howard C. Brown, Jr.

The discussion centered mainly on two issues - namely: (1) the manner in which Admiral Rickover would - not whether - continue in responsible charge of the naval reactors program; and (2) the question of the retention in the naval reactors program under Admiral Rickover of the responsibility for the selection and training of personnel, mainly officer personnel.

Secretary Korth stated that he was wholly in accord with the plan to keep Admiral Rickover in charge of the program. He said he was exploring several means by which this could be done - for example, on a year-to-year appointment by Secretary Korth; or as a retired naval officer on disability pay in the Navy; or as a civilian employee of the AEC.

Chairman Seaborg said that Admiral Rickover had told him that he preferred the alternative of civilian employment with the AEC.

Senator Anderson and Rep. Holifield pointed out that under the latter arrangement Admiral Rickover would no longer be a naval officer on active duty and would not, in fact, continue to have real control over the selection and training of naval personnel; and that, under such circumstances, it might be

necessary for the Congress to introduce appropriate legislation to assure such control, recognizing the vital relationship between safety of nuclear propulsion reactors and highly-qualified personnel.

Secretary Korth responded with a request that he be permitted to work out a solution consistent with such control, within the framework of existing legislation and authority available to him. He assured those present that he supported the need to ensure that an adequate number of highly-trained naval officers were available to the nuclear Navy program. He said that he thought the matter could be resolved within a month or two, and that he would not let the matter slide.

The Secretary also raised the question of a deputy to Admiral Rickover who would be able to take over in the event of any disability of the Admiral. He suggested the possibility of appointing Admiral duPoix as his deputy. In response to queries by Senators Pastore and Anderson, Secretary Korth said that there would be no question but what the deputy would in fact report to the Admiral. Chairman Seaborg noted that Admiral Rickover himself had been reluctant to designate a deputy and that he had said there were four civilians on his staff (Rockwell, Panoff, Leighton, and Mandil) any of whom would be satisfactory but saw no need to designate one of them as his deputy. The consensus was that the Admiral probably would have to yield on this point and be willing to have an individual designated as his deputy; further, that the idea of appointing a naval officer as his deputy had merit and should be considered.

At this point, Commissioner Ramey pointed out that Mr. Leighton was a former naval officer who had resigned because he had been passed over. Senator Anderson asked the Secretary of the Navy if he was aware of how few Rear Admirals there were in the Navy who had ever been associated with Rickover, making the point that apparently normal promotion could not be expected if there had been an association with Rickover. The Secretary said he recognized the problem, and while he didn't know the exact number off-hand, he was prepared to assume that only a handful of Admirals had had previous association with Rickover's program. Therefore, the group made it clear that quite in addition to resolving Rickover's future status,

they expected the Navy to regard service in the nuclear submarines as an asset - and not a liability - in a naval career. The group agreed to afford Secretary Korth an opportunity to work things out within the next month or two.

Howard C. Brown, Jr.

Friday, March 22, 1963 - D.C.

At 9:40 a.m. I presided over Information Meeting 258 (notes attached). We responded affirmatively to a letter from McNamara in which he requested the President to approve an additional battalion (in addition to the present three) of Sergeant (18 missiles) and two additional (in addition to the present two) Pershing (100 missiles) for West Germany. The Commission concurred, subject to a security review.

We received NSAM 230 from Bundy establishing Project PAL as being in the highest national priority category for development and production.

The Circuit Court of Appeals has overruled the AEC Patent Compensation Board on the applicability of the Statute of Limitations to the Phillips Patent Case; thus, this also, fortunately, can now be tried on its merits.

I received a letter from Manson Benedict in which the GAC nominates Robert Oppenheimer for the 1963 Fermi Award. I passed this information on to President Kennedy via Wiesner, who passed it to Clifton. Clifton called to say that the President is concerned about this, but I explained the background and urged a go-ahead.

Kaysen called and said that the President again has expressed some concern about the Israeli activity and wondered whether our last inspection had been a thorough enough job and whether we couldn't organize a more effective job and be a little more persistent with them. I told Carl we have no quarrel with this; the problem is how it should be cleared with the Israelis. I said it is a matter of doing this correctly; that formerly there has been some attempt to do the job surreptitiously through the IAEA, etc., but we weren't too keen on this approach. I said that I will get a report back to him on this.

I received a report from the GAC on its 83rd meeting held at Los Alamos (copy attached).

Helen and I attended the Sixth Annual Robert Goddard Memorial Dinner (black tie) of the National Rocket Club at the Sheraton Park Hotel (in Sheraton Hall). I sat at the head table between Mrs. Robert Goddard (who showed early movies) and Vice President Johnson (who spoke) and one removed from John Glenn (who received an award).

Saturday, March 23, 1963 - D.C.

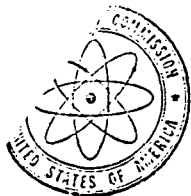
I presided over a meeting of the CHEMStudy Steering Committee which was held in the Commission meeting room from 9:30 a.m. to 4 p.m. The project is going well and will move from Claremont to Berkeley with Pimentel, who will replace Campbell as Director.

Sunday, March 24, 1963

I read AEC papers and journals and worked on the speech I will give at the National Security Seminar in Dayton, April 1st, "Basic Research and Our National Security."

Monday, March 25, 1963 - D.C.

I sent a letter to President Kennedy (copy attached) recommending Oppenheimer for the 1963 Fermi Award and requested his approval.



UNITED STATES
ATOMIC ENERGY COMMISSION

WASHINGTON 25, D.C.

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COPY NO. _____

March 22, 1963

INFORMATION MEETING 258

UNCL. BY DOE
NOV 86

9:40 a.m. Friday, March 22, 1963 - Chairman's Conference Room, D. C.

1. Chairman's Meetings with Messrs. Webb, Keppel and Waterman to Discuss Federal Support for Research

The Chairman commented briefly on his recent meetings to discuss the problem of strengthening higher education for research and said attention had been given to his PSAC report of November 1960. Mr. Fritsch is working with AEC staff on follow-up. (Fritsch/English)

2. Chairman's Tuesday Meeting with Mr. Nagey, Allison Division of General Motors.

The Chairman said Mr. Nagey had telephoned to request a meeting to discuss the energy depot concept. The meeting has been scheduled for Tuesday, March 26, at three o'clock. The Commissioners are invited to attend if they wish. (Pittman)

3. Chairman's Meeting with Senator Bible and Congressman Cannon Yesterday to Discuss NTS Labor Situation

4. Letter to Secretary of Defense re Determination on Sergeant and Pershing Allocations

The Chairman said he would sign the letter today. (Brown)

5. Letter to the President re Proposed Dispersal to NATO Forces

The Commissioners approved the draft letter as revised at the meeting. The Chairman will transmit the letter today. (Brown)

6. Chairman's March 21 Interim Reply to Sir Roger Makins' March 14 Letter re Plutonium and Other Matters

The Chairman reaffirmed the Commissioners' request for:

a review of the legislative history of the military exchange agreement for review with Mr. Ramey in preparation for Commission consideration. (GC)

In addition:

- (a) A briefing memorandum for the Commissioners' use in their meeting with Sir William Penney is to be prepared. (Wells)
- (b) The Commissioners requested preparation of a proposed reply to Sir Roger's March 14 letter. (Wells)

7. Commissioners' March 12 Meeting with Secretary Udall

The Chairman reaffirmed the importance of appropriate staff action.
(Henderson/Secy/Price/GM)

8. Commissioners' March 11 Meeting with Mr. Webb

The Chairman reaffirmed the importance of appropriate staff action.
(Henderson/Secy/GM)

9. Letter to Mr. Chauncey Starr re SNAP

The Chairman requested preparation of a revised draft. (Pittman)

10. Letter to Mr. Bundy re Underground Tests Program for FY 64

The Chairman requested revision for early consideration. (Betts)

11. Proposed Joint AEC-DOD Letter to the President re Weapons Development

The Commissioners will review the proposed draft.

12. Undersecretary Carr's (Dept. of Interior) Invitation to IAEA Vienna Meeting on Desalination Program

Mr. Ramey noted his call from Mr. Carr informing him that Mr. Carr had been requested to attend the Vienna meeting. AEC staff will be asked to assist. (Pittman/Wells)

13. AEC Authorization Hearings Scheduled for April 9, 10 and 11

Noted.

14. Mr. Runion's March 14 Letter re NFS Negotiations

Mr. Hollingsworth discussed the problems raised by Mr. Runion's inclusion of the "Executive Summary" in error, Mr. Runion's request for return of the Summary, and the mis-statement in the Summary. The Commissioners agreed the staff should prepare a response clarifying the stated position of the Commission and consider additionally the need for a memorandum or note for the Chairman's use. (Vinciguerra)

15. N.V. Philips Gloeilampenfabrieken - Docket No. 16

Mr. Hennessey reported that the District Circuit Court of Appeals had agreed in essence with the previous decision on the Anderson case. A memorandum of information will be circulated to the Commissioners. (GC)

16. Memorandum from Mr. Wells re Sale of Polaris Missiles

Mr. Ink noted the memorandum is in circulation.

17. Messrs. Nitze and Merchant's Meeting with the President Today to Discuss Article VI of the Nassau Agreement

Mr. Ink noted the meeting today to discuss problems of interpretation of implementation of Article VI. The survey team is to return to Paris for further discussion of this matter in early April, and Mr. Nitze has requested AEC representation on the group. (Brown-Ink)

18. Possible Effects of the DRIEBLE Event

Mr. Ink noted preliminary DoD planning for the evacuation of people and DoD's desire to inform the Congress. Defense has now agreed to delay any action pending receipt of further analysis of the effects of the event. (Kelly)

19. Senator Pastore's March 8 Letter to the President

The Chairman made reference to this letter.

20. Agenda for the Week of March 25, 1963

Approved as revised. (Secy)

PRESENT

Dr. Seaborg Mr. Hollingsworth
Dr. Haworth Mr. Hennessey
Mr. Ramey Mr. Ink
 Mr. Brown
 Mr. McCool

DISTRIBUTION

Commissioners
General Manager
General Counsel
Secretary

W. B. McCool
Secretary

GENERAL ADVISORY COMMITTEE
TO THE
U.S. ATOMIC ENERGY COMMISSION
P.O. BOX 3328
WASHINGTON 7, D.C.

OFFICE DIARY

GLENN T. SEABORG
Chf USAEC, 1961-72

FOLDER-PAGE 27151

901771

March 21, 1963

Dr. Glenn T. Seaborg, Chairman
U. S. Atomic Energy Commission
Washington 25, D. C.

9575 3/22/63

UNCL. BY DOE
NOV 88

Dear Glenn:

The 83rd Meeting of the General Advisory Committee was held at the Sandia Corporation and the Los Alamos Scientific Laboratory on March 18, 19 and 20, 1963. The second day was spent at the latter location. With the exception of Norman F. Ramsey and William Webster, all Committee members were present at all sessions. The members who attended the meeting were Philip H. Abelson, L. R. Hafstad, K. S. Pitzer, J. C. Warner, Eugene P. Wigner, John H. Williams, and Manson Benedict, as Chairman. We were pleased that Commissioners Robert E. Wilson and James T. Ramey, and General Manager A. R. Luedecke, were able to join us, for portions of the meeting. Also present at the meeting was Anthony A. Tomei, Secretary. Robert A. Charpie, Assistant to the Chairman, was unable to attend.

The Committee was very pleased to learn of Mr. Webster's appointment to the GAC, on March 13th.

(1) Weapons

The major emphasis of our meeting was on nuclear weapons — on new weapon concepts, improved understanding of weapons effects, and research and testing on weapons vulnerability.

At Los Alamos, we had a brief but stimulating discussion with Dr. Mark regarding some of the new weapons concepts being investigated at Los Alamos. We were pleased to hear about the increased interest there in pure fusion weapons as well as the consideration being given to large yield weapons and to a tritium-free small weapon. The last type of weapon strikes us as a most desirable one, both because of the practical value of a weapon which would not require periodic renewal and because a production moratorium would not jeopardize the effectiveness of a stock of such weapons.

Discussions of weapons effects research at Los Alamos with Dr. Longmire, at Sandia with Dr. Cook and Dr. Dacey, and at the Air Force Special Weapons Center Laboratory with Col. Prickett went far toward reassuring us that adequate research of this character was being carried out. The general division of responsibility for weapons effects research between the AEC and the DOD, recently

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BY AUTHORITY OF DOE/OC

[Signature]
DATE

J. Diaz 6/23/86

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- 2 -

agreed on by Chairman Seaborg and Secretary Gilpatric, is a valuable step toward avoiding omissions or duplications. The formation of a committee to coordinate this type of research by AEC laboratories, with two representatives each from Sandia, Los Alamos and Livermore is an important further step. It is hoped that the DOD will set up a complementary committee and that the two committees will remain in close touch with one another.

We were pleased to learn that a group headed by Dr. Longmire was attacking vigorously some of the least well understood phenomena accompanying nuclear explosions, the electromagnetic pulses associated with low-level bursts and ionospheric effects accompanying high-altitude shots.

We were favorably impressed by the fine facilities and capable staff the Sandia Corporation has for investigating weapons vulnerability, and we were reassured to learn of the extensive investigations of this character being carried out by Sandia and the Air Force Special Weapons Center Laboratory. As a specific example, we were glad to learn that the effects of soft X-rays from a high-altitude burst on a reentry vehicle had been studied in the Marshmallow shot and was to be investigated further in a future test. We were also glad to learn that AFSWC had devised a system of shields which could greatly reduce the vulnerability of a reentry vehicle to such effects without seriously increasing its weight or interfering with reentry. We hope that this form of hardening will be pursued vigorously.

The Committee was glad to learn from your letter of March 14 that plans for exposing a train of reentry vehicles to nuclear explosions at different altitudes and distances, in Project Sleigh Ride, were being developed. Col. Prickett described some of the features now contemplated in such tests. We would urge that every effort be made to secure Presidential approval to carry out Project Sleigh Ride as soon as is feasible. We reiterate our belief, however, that an over-all proof test of a hardened warhead is required as soon as practicable. A complete, hardened, nuclear warhead launched by an operational missile (a Minuteman or Polaris or one of each) should be exposed to a nuclear explosion at a presumably barely safe distance and then detonated and its yield determined.

Means for ensuring that an over-all view is taken of nuclear weapons systems by the groups responsible for their development and use are essential to our national safety. The Weapons Subcommittee of the GAC visited the Rand Corporation on February 8, 1963 and was pleased to note there a strong sense of responsibility for nuclear weapons systems in all of their aspects. We commend the Sandia Corporation for establishing the Advanced Systems Studies Group under Dr. Cotter with responsibility for considering the interrelation of all aspects of nuclear weapons systems. This type of activity should be encouraged at all the weapons laboratories.

(2) Nuclear Rockets

The Committee received a series of informative progress reports on the Rover-NERVA-RIFT program from Dr. Spence, Dr. Baker and Dr. Boyer of Los Alamos, and Dr. Klein of SNPO and Dr. Novik of NASA. Preparations to make use of the

newly-developed pyrolytic carbon coated uranium carbide particles in fuel elements should improve the performance of the nuclear rocket.

With regard to the over-all mechanical design, the Committee was less well satisfied. The lack of early recognition of the importance of preventing vibration in connection with the fuel element design and the lack of an assured solution for this somewhat obvious problem were disappointing. It is hoped, and indeed expected, that the engineering capabilities of the Westinghouse and Aerojet organizations will help to reduce this kind of trouble.

The Committee was pleased to hear reiterated the determination on the part of the Rover-NERVA-RIFT project leaders not to allow emphasis on, and procurement of, auxiliary hardware to get ahead of the status justified by technical progress on the reactor itself.

(3) Draft Report of PSAC-GAC Panel on High Energy Accelerators

The Committee reviewed the March 9-10 draft of the Report of the PSAC-GAC Panel on High Energy Accelerators. We consider the report to be an excellent statement of the importance of advancing U. S. capabilities for research in high energy physics, and we regard each of the major new facilities described in the report as a feasible and valuable step forward in this field. The Panel has recommended a bold program which would ensure continued U. S. leadership.

At the same time, this Committee must emphasize that the proposed program calls for an increase in annual expenditure for research in high-energy physics from \$200 M in FY 1965 to \$800 M in FY 1980. The question must be squarely faced, therefore, whether it is wise for the United States to program an increased expenditure of this magnitude in the face of all other needs for funds for advancement of research and education. Before funds are committed for any of the major steps recommended in the Panel's report, there should be a careful evaluation of whether the step is warranted in the light of needs for expansion of research in other areas. We recommend that the AEC advocate to the Office of Science and Technology that a comprehensive study be made of the appropriate distribution of future government support for all areas of basic research. If invited, the GAC would be pleased to participate in such a study.

(4) Fermi Award

The Committee's recommendation for the Fermi Award for 1963 has been transmitted to the Commission in a separate letter dated March 21, 1963.

(5) Education

We appreciate your informing the Committee regarding positions taken by the Commission on educational matters, through your letter of February 8 to President Holt of the University of Tennessee and through your letter of March 14th which attached Dr. Poor's comments on the GAC letter of January 11, 1963. We are

Looking forward to receiving the Hilberry report in the near future. We will review the report at our April 25-27 meeting, and hope to discuss it and other educational matters with Dr. Poor at that time.

(6) 84th GAC Meeting

The next meeting of the General Advisory Committee will be held in Washington, D.C., on April 25, 26 and 27, 1963. Agenda topics proposed for that meeting are:

- A. Review of Hilberry report on AEC educational activities.
- B. Consideration of economics of shutting down or stretching out operations of the diffusion plants, as suggested in your letter to me of March 14th.
- C. Review of report by Drs. Weinberg and Hammond on very large reactors.
- D. Joint session with the Advisory Committee for Biology and Medicine, provided that time would be convenient for the ACBM.

In addition, the Committee plans to attend the Lawrence Award ceremony, which the Commission has scheduled for a portion of the afternoon of April 25th.

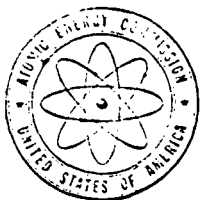
(7) 85th GAC Meeting

The following meeting of the Committee has been tentatively scheduled for July 18, 19 and 20. The location therefor will be determined at the 84th Meeting.

Sincerely yours,



Manson Benedict
Chairman



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

MAR 25 1963

UNCL. BY DOE
NOV 86

Dear Mr. President:

I am pleased to inform you that the Atomic Energy Commission, upon the recommendation of the General Advisory Committee, wishes to grant the Enrico Fermi Award for 1963, in the amount of \$50,000, to Dr. J. Robert Oppenheimer. This award would be in recognition of Dr. Oppenheimer's outstanding contributions to theoretical physics and his scientific and administrative leadership in the development not only of the atomic bomb, but in establishing the groundwork for the many peaceful applications of nuclear energy.

The Enrico Fermi Award was established by the Commission in 1956. It is granted not more often than annually, and in an amount not exceeding \$50,000 to any one individual, under the authority of Section 157 b.(3) of the Atomic Energy Act. If the award is made to more than one individual, the total amount remains \$50,000. In establishing the award, the Commission determined that it shall 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.

The Enrico Fermi Award was granted to the late Dr. John von Neumann in 1956, to the late Dr. E. O. Lawrence in 1957, to Dr. Eugene P. Wigner in 1958, to Dr. Glenn T. Seaborg in 1959, to Dr. Hans A. Bethe in 1961, and to Dr. Edward Teller in 1962. No award was granted in 1960.

The Commission recommends that you approve granting the award to Dr. Oppenheimer, with the presentation to be made at a ceremony in December 1963. The selection of Dr. Oppenheimer to receive the award would be announced immediately.

Biographical data on Dr. Oppenheimer are enclosed.

Respectfully yours,

(Signed) Glenn T. Seaborg

Chairman

Enclosure
As noted above.

The President
The White House

J. Robert Oppenheimer

ENCL. BY DOR
NOV 86

Dr. J. Robert Oppenheimer was born in New York City on April 22, 1904, the son of a wealthy textile importer. His interest in science was first evident at the age of five when he began collecting rocks. He entered Harvard at the age of 18 and it was there that he became interested in theoretical physics. He graduated from Harvard, with honors, in three years and then went on to Cambridge and Göttingen, where he received his Doctor's degree in the Spring of 1927.

Dr. Oppenheimer returned to the United States in 1928 as a research fellow at Harvard and at the California Institute of Technology. In 1929 he again went abroad as a fellow of the International Education Board at the University of Leiden and at the Technical High School in Zurich. In 1929 he returned to the United States where he accepted concurrent appointments as assistant professor of physics at the California Institute of Technology and the University of California at Berkeley.

At these institutions he was a leader in the field of theoretical physics. He made contributions of permanent major importance in the quantum theory of the molecule, the divergence of field theory, the statistics of many particle systems, position theory, cosmic ray shower theory. During this period of highly productive scientific endeavor Dr. Oppenheimer also first postulated the existence of the anti-proton and also collaborated on the Oppenheimer-Phillips process.

During the twelve years that Dr. Oppenheimer served on these two faculties, he was instrumental in building the largest school in the country of graduate and post doctoral study in theoretical physics at Berkeley. Dr. Oppenheimer played a major role in the education of a generation of American theoretical physicists, bringing American theoretical physics to maturity. In that decade before the war he inspired and taught many young American aspiring theoreticians, most of whom have since become leading physicists.

Due to his experience and knowledge, Dr. Oppenheimer became involved in our efforts to produce atomic weapons almost at the beginning of the program. In the autumn of 1941 he attended the meeting of the special committee chaired by Arthur Compton at the National Academy of Sciences to review the prospect and feasibility of the different uses of atomic energy for military purposes.

After this initial encounter with the prospect of atomic weapons, he began to make preliminary calculations about the construction and performance of atomic bombs and also began to consult with the staff of the Radiation Laboratory at Berkeley on the electromagnetic separation of uranium isotopes. Dr. Oppenheimer was also in attendance at the conference which established the metallurgical laboratory for the production of plutonium.

Oppenheimer
& his group
- Quantum
- Through
barrier

— What is

In the Spring of 1942, Dr. Oppenheimer was requested by Dr. Compton to take charge of the work on the bomb itself, which was being done at a number of experimental laboratories in diverse parts of the country.

After a review of this experimental work, Dr. Oppenheimer and others concluded that in order to proceed rapidly with the development and production of atomic weapons, it would be necessary to pull all the experimental and theoretical work together under a central laboratory where information and ideas could be translated into action with a minimum of delay. He discussed this idea with General Groves, who had been assigned command of the Manhattan Engineer District, and named General Groves as a possible site, Los Alamos, a boys ranch near the Oppenheimer summer ranch home. General Groves took immediate steps to acquire the site, and early in 1943 General Groves and Dr. Compton appointed Dr. Oppenheimer as Director of the Laboratory.

Dr. Oppenheimer's major initial problem as Director of the laboratory was the recruitment of qualified scientific personnel who were understandably reluctant to come to work at a remote site on a project about which they could be told very little. In the hurried days of late 1942 and early 1943 he was also faced with the physical problems of getting the laboratory facilities constructed in the face of competition from laboratories and arm plants already geared to war production, particularly in obtaining of priorities for scarce materials. The fact that Los Alamos was some distance from major rail and transportation facilities further complicated this problem.

However, due to Dr. Oppenheimer's knowledge of the location and capabilities of competent scientific personnel throughout the country he was able to recruit the necessary talent and began the formidable task of putting the laboratory together. Through his scientific and administrative leadership this difficult task was accomplished in a minimum amount of time considering the problems involved, and the actual theoretical and experimental work on the bomb itself was started under his guidance.

Dr. Oppenheimer's success in the direction and coordination of this effort, which involved the forging together of many diverse experiments and the interbreeding of ideas from a dedicated but heterogeneous staff of scientists is a story which has been rather thoroughly related now. The proof of this success was well noted with the explosion of the first atomic device on July 16, 1945 at Alamogordo.

Dr. Oppenheimer resigned as Director of the Los Alamos Scientific Laboratory in October 1945, but was instrumental in the preparation of the legislation for the Atomic Energy Act of 1946 and in the development of the Baruch Plan for international control of atomic energy.

In 1947 Dr. Oppenheimer went to Princeton as Director of the Institute for Advanced Study. During the period of 1947 through 1950, he also served as Chairman of the General Advisory Committee to the Atomic Energy Commission.

He is at present the director of the Institute for Advanced Study at Princeton and is considered one of the top ten theoretical physicists in the country today. Dr. Oppenheimer is a member of the National Academy of Science, a Fellow of the American Academy of Arts and Sciences, the American Physical Society, and the Royal Danish Academy. He served as a member of the Board of Overseers of Harvard College from 1949 to 1955.

Dr. Oppenheimer married Katherine Harrison in November 1940 and they have two children, Peter and Katherine. The Oppenheimers reside at Olden Manor in Princeton, New Jersey.

I received a letter from Ambassador Dobrynin saying Petrosyants is agreeable to my visiting in May, as I suggested.

I sent a letter (copy attached) to George Pimentel about CHEMStudy.

I wrote to the American Chemical Society once again nominating Stan Thompson for the ACS Award for Nuclear Applications in Chemistry.

At 9:45 a.m. I presided over Information Meeting 259 (notes attached).

The Commission received a briefing by RCA executives, George Brown (Vice President), M. S. Cohen (Manager, Advanced Systems Analysis), N. I. Korman (Manager, Advanced Systems,), S. H. Winkler (Manager, Space Power Systems) and L. P. Garner (Staff Scientist) on various aspects of RCA interest in and work on SNAP thermionic conversion.

At 4:05 p.m. I presided over Commission Meeting 1918. Issues were approved as follows: 1. proposed letter to Chairman, Federal Radiation Council, subject to Commissioner Haworth's review of the enclosures, 2. summary of results of the 1962 atmospheric nuclear test series were approved as revised. The Commission requested that the summary be revised in accordance with the discussion at the meeting and then returned for Commission review at an early date. The Commission approved the proposed declassification on pages 2 and 3 of the Summary.

Helen and I attended a birthday dinner for Chief Justice Earl Warren given by the California Congressional Delegation at the International Inn.

Tuesday, March 26, 1963 - D.C.

John McCone called at 10 a.m. to let me know that he talked with the President and Bundy yesterday concerning my trip to Russia and explained to them how really important he thought it is that I should use one of the presidential aircraft in order to attach importance to the trip. John said they both agreed with him. John said when I have my team organized he would like to have two sessions with us in his office to discuss the type of things they need, which we might help them with, and the protection for the team.

I told John that we want to be very discreet about this because I will be going with credentials as a scientist, and I think it will be to everybody's advantage to maximize this position. We both have a common interest and we feel there need be nothing inconsistent in our approach. I told him I am thinking of meeting with Ambassador Dobrynin before I leave and he thinks that is a good idea.

At 10:30 a.m. I called Senator Pastore and told him that the GAC has recommended Oppenheimer for the Fermi Award and that I have passed the recommendation on to the President. He has no objection to the choice but does feel that it might evoke some lively reaction in a number of quarters. I asked him whether our meeting on March 21st regarding Rickover constituted a sufficient answer to his letter of March 19th and he said it does.

At 10:35 a.m. I met with George White (General Manager, Atomic Power and Equipment Department, General Electric, San Jose, California) and William Lalor (D.C. representative). White indicated that this was essentially a courtesy call to offer me the opportunity to discuss anything this is on my mind with respect to G.E. operations.

I told him I discussed a number of items with Lyman Fink during my visit to Hanford as White already knew. He asked if there is anything new on the Indian Tarapur

March 25, 1963

Dear George:

We had a very interesting meeting of the Steering Committee here on Saturday. The Committee went along with the suggestion of an Executive Committee consisting of yourself, Art Campbell and Harvey White. Also, in view of the Study's move to Berkeley, and Art's sabbatical out of the country next year, the Committee would like you to serve as Director of the Study, beginning September 1 of this year. I shall write you a formal letter shortly with this proposal. I hope very much that you will be able to accept this responsibility.

I have been reading the biographies which are included in the Textbook, and believe that these constitute a very worthwhile addition. I feel that they are very well done and that you are to be congratulated on your writing ability in the biographical field.

Art gave me his copy of the galley proofs for Chapter 23 when he was here on Saturday. Since I have already passed on my suggestions, I won't try to make any marks on the galleys, but I am enclosing the first page because I noticed a change in red ink; I also have pencilled in a suggestion on the second page which you may or may not care to use. I am also enclosing my own biographical material with some notations limited to increasing its accuracy for I don't feel it would be proper to suggest any other changes.

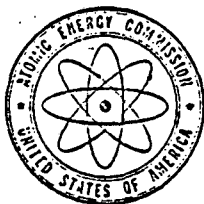
Sincerely,

Glenn T. Seaborg

Professor George C. Fimentel
Assistant Director, CHEM Study
Department of Chemistry
University of California
Berkeley 4, California

Encls.

GTS:mc



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

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NOV 86

COPY NO. 15

March 25, 1963

INFORMATION MEETING 259

9:45 a.m., Monday, March 25, 1963 - Chairman's Conference Room, D. C.

1. Safeguard Inspection of Israeli Reactor at Damona

The Chairman discussed briefly Mr. Carl Kaysen's call from the White House on this question and said that he had given Mr. Kaysen a brief memorandum of his views on the question of safeguards inspection. Additionally, the Chairman requested a report on previous inspections of the reactor. (Wells)

2. Sir William Penney's Visit March 28 and 29, 1963 (See Mr. Wells' Memorandum of March 22)

The Chairman discussed briefly the memorandum from Mr. Wells for use in the Commission's discussions with Sir William and suggested the Commissioners review the briefing memorandum in preparation for those discussions. With respect to modification of the barter agreement i.e., whether by exchange of letters or by amendment of the Mutual Defense Agreement, the Chairman requested discussion of this matter with the Joint Committee during the Commission's next executive meeting with the Committee after the 202 Hearings. (Ink/Wells)

3. Letter to DOD re AEC Participation in Program 437

The Chairman noted that in response to Dr. Harold Brown's letter request, he proposed to sign Gen. Betts's suggested affirmative reply late today unless in the meanwhile the other Commissioners had comments which would involve changes in the letter. (Brown)

4. Response to Joint Committee Request for Comments on Lillienthal Speech of February 19, 1963

The Chairman spoke briefly to the first draft response and suggested addition of statements by other persons. The draft is to be revised and the Chairman suggested the Commissioners read Mr. Lillienthal's speech. (Brown/Pittman/Secy)

5. Chairman's Trip to the U.S.S.R. in Latter May

6. Draft Letter to the Federal Radiation Council

Distributed and to be discussed at 3:45 p.m. today. (Secy)

7. Letter from Mr. Webb, NASA, re April 4 Briefing on SNAP Program

Noted. Mr. Ramey stressed the importance of NASA representation at AEC contractor briefings on the SNAP program. (Pittman)

8. Acting General Manager's March 22 Memorandum re Assignment of Contract No. AT(05-1)-737 Between AEC and Phillips Petroleum Company to United Nuclear Corporation

The Commissioners had no objections to the General Manager's recommendation. Mr. Ramey pointed out that the Commission will be obtaining 46 percent of its uranium ore supply from two companies by 1967. The Chairman requested information on the relationship between Sabre-Pinion and Homestake-Sapin. (Johnson)

9. Chairman's Response to Mr. Fink's (GE) Letter for Tax Credit on Investment in Nuclear Power Facilities

The Chairman said he would sign the letter today. (Brown)

10. GAC Dinner 7:00 p.m., April 25

The Chairman noted Dr. Benedict's letter inviting the Commissioners and the General Manager and their wives to attend the dinner.

11. Recognition of Retiring Employees

In response to the Chairman's request, the General Manager said appropriate recognition is considered for retiring employees with Commission participation as appropriate.

12. Dr. Wilson's Report on His Visit to General Atomic, Atomics International Aerojet General and North American Facilities

Dr. Wilson reported briefly on his visit to these facilities and said he would discuss some programmatic questions with Dr. Pittman. The Chairman requested that the concept of "energy depots" be carefully examined from the standpoints of economy and technical feasibility. (Pittman)

13. Canadian Construction of a Heavy Water Plant

In response to Dr. Wilson's comment that the March 21 Nucleonics Week reported Canadian plans to build a heavy water plant, the General Manager said he had discussed prices, etc., with Lorne Gray following the recent Commission decision on the price of U.S.-produced heavy water. It was agreed that further consideration should be given to possible discussion with Mr. Gray at an appropriate time. Gen. Luedecke was to ascertain whether Mr. Gray expected to visit Washington soon. (GM)

14. March 22 Memorandum re Statement on Results of 1962 Nuclear Test Series

The Chairman suggested the Commissioners review the memorandum in preparation for discussion at the 3:45 p.m. meeting today.

attached on 4/15/63.

15. March 22 Letter from Mr. Bundy re Presidential Approval of Weapons Dispersal

Noted.

16. Fermi Award

PRESENT

Dr. Seaborg
Dr. Wilson
Dr. Haworth
Mr. Ramey

General Luedecke
Mr. Hollingsworth
Mr. Hennessey
Mr. Brown
Mr. McCool

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General Counsel
Secretary

W. B. McCool
Secretary

reactor, and I said I know of nothing new except the Clay Report which in general deals with cutting of additional funds, but I have no way of knowing whether this affects India. He indicated they are having trouble with very thin stainless steel cladding and at present continue to bank on zinc alloy. This, however, has some effect on the future economics of nuclear power. I asked him about the status of their questions to the Los Angeles Power and Water Company regarding the procedure whereby the company accepted the Westinghouse bid even though it is about 500 megawatts rather than the requested 400 megawatts. He said they don't expect any action on this, but feel that it is justified and necessary to question this. He said he hopes it will not embarrass the AEC in any way, and I indicated I don't think it will.

I attended a luncheon in honor of Paul Aebersold, who is leaving for a month's visit to South Africa, at the Embassy of South Africa.

The Commission heard a briefing by Dr. T. F. Nageyk (Allison Division of General Motors), Aaron B. Rosenthal and Robert E. Henderson on their Energy Depot concept. The reactor produces H_2 and O_2 from water and air, then H_2 is combined with N_2 to make NH_3 for use in vehicles.

I visited Congressman Ben Jensen in his office and invited him to accompany me to Ames, Iowa, on May 3rd for a reactor dedication. He may not be able to go.

I also briefed Congressman Albert Thomas, in his office, on the Nevada Community.

I sent my biweekly report (copy attached) to the President.

Wednesday, March 27, 1963 - Germantown

At 9:45 a.m. I presided over Information Meeting 260 (notes attached). It was noted that the President has approved 20 underground tests (including safety tests, Plowshare effects tests) for the remainder of FY 1963. We discussed a not too serious criticality accident at Livermore last Monday night. A report has been made to the White House.

I worked on a reply to the JCAE request for comments (copy attached) on Lilienthal's Princeton speech in which he deprecated the effort on development of nuclear power. We are trying to analyze his speech in a dignified manner.

I also worked on a public statement giving the results of the U.S. atmospheric test series for early release.

I had lunch with Joe Hennessey, Dwight Ink, Bob Hollingsworth and Howard Brown. We discussed the difficulties over the Nevada drilling (water well) contract. Inept handling by the Nevada Operations Office has contributed to the unjustified complaint of a Wyoming company to their Congressmen. We are also having difficulty with the zirconium producers in Florida. Three companies, with the present five-year contract expiring, want the AEC to pick just one successor to obtain the contract. We will, rather, obtain zirconium on the open market as we should. They complained to Congressman Robert Sikes of Florida and to the JCAE.

I presided over Commission Meeting 1919 (action summary attached).

Thursday, March 28, 1963 - D.C.

In connection with the impending choice of a support contractor for the Nevada Test Site, a joint AEC-NASA (SNPO) board has narrowed the choice to AMF, RCA, Pan

March 26, 1963

PERSONAL AND CONFIDENTIAL

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Dear Mr. President:

I have the pleasure of submitting to you the regular bi-weekly report on significant developments in the atomic energy program:-

1. Naval Reactors Program - Future Status of Admiral Rickover
(Unclassified)

Mr. Kayser provided me a copy of Senator Pastore's letter of March 8 to you reporting on a number of items of interest in the atomic energy program. One such item was the question of the future status of Admiral Rickover. Subsequently, on March 19, Senator Pastore wrote me on the same subject and suggested an early discussion with other interested members of his Committee. On March 21, I arranged for Secretary Korth to join me and Commissioner Ramsey in a visit with Senator Pastore in his offices. We were joined there by Senator Anderson and Representatives Hollifield and Price.

There seems to be general agreement that upon reaching the mandatory retirement age in January 1964, Admiral Rickover would be employed by the Atomic Energy Commission in a civilian capacity, but would continue in responsible charge of the Naval Reactors Program. Most of the discussion centered around the question of whether, in such a civilian capacity, Admiral Rickover would, in fact, retain his present responsibility and authority for the selection and training of key officer personnel. The Commission is in agreement with Senator Pastore and his colleagues that an accident involving a nuclear reactor would, in addition to imperiling the lives of Navy crews, raise serious domestic and international issues of public health and safety; that selection and training of personnel is critical to safe operation; and that, therefore, there must be no diminution in the quality of personnel selected for the program and the training they receive. Admiral Rickover now makes selections from only those Naval Academy graduates who have achieved highest scholastic standing as Midshipmen. There apparently is some feeling within the Navy that Admiral Rickover's selection procedures may not result in a sufficient number of qualified personnel to man the number of nuclear powered ships that will be in commission within the next two or three years; and that, on the other hand, some of the branches

of the Navy may not be receiving an adequate share of top personnel. A corollary problem is that a longer tour of duty is now involved for engineering and command duty on nuclear powered vessels, thus having an adverse effect on a career officer's normal promotion expectation. Secretary Korth's views on these issues may differ from those of the Navy.

Secretary Korth advised us that he felt that he could work out a solution to the above problems within the framework of the authority available to him and asked that he be afforded an opportunity to do so within the next month or two. It was agreed he should have such an opportunity; however, Senator Pastore and Senator Anderson and Mr. Hollifield made it clear that they would introduce appropriate legislation in the event a satisfactory solution had not been advanced in a reasonable time.

2. Proposed Legislation to Provide Community at the Nevada Test Site
(Unclassified)

In previous reports of November 13, 1962 and January 3, 1963, as well as during your trip to Nevada last December, I mentioned that the development of a community at the Nevada Test Site was under consideration. After careful review and study of this matter, the Commission has now concluded that a community should be provided at or near the Nevada Test Site to facilitate recruitment and retention of employees for Project Rover, and on March 20, proposed legislation for this purpose was forwarded to the Bureau of the Budget for clearance.

3. Sir William Penney Visit to Washington (Official Use Only)

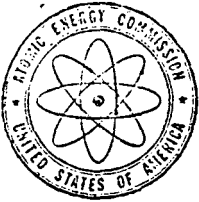
Sir William Penney, Deputy Chairman, U. K. Atomic Energy Authority, will visit the AEC on March 23 for discussions with the Commission on extension of the fast reactor exchange and the supply of U.S. enriched uranium for the U.K. civil power reactor program. In addition, the status of the Civil Bilateral Agreement of 1965 between our two countries, will be given some attention. This Agreement expires in July, 1965.

You may recall that in my report of February 26, 1963, I indicated an invitation had been extended to me and my colleagues to visit the USSR. I have accepted this invitation and plans are now being made for my visiting Moscow the latter part of May.

Respectfully submitted,

Glenn T. Seaborg

The President
The White House



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

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NOV 86

COPY NO. 15

March 27, 1963

INFORMATION MEETING 260

9:45 a.m., Wednesday, March 27, 1963 - Chairman's Conference Room A-457

1. Chairman's Response to Joint Committee Query re Lilienthal Speech of February 19

The Commissioners discussed the proposed response to Mr. Conway's query and provided Mr. Ink several suggestions for inclusion in the draft letter for their early review. Mr. Lilienthal is to be invited to Washington to meet with the Commissioners after the 202 Hearings. Mr. Ink said the February 19 speech will be reviewed in detail for review with Dr. Haworth and discussion with the Commission. (Ink/Pittman)

2. Statement on Results of 1962 Nuclear Tests

The Commissioners discussed several revisions in the new draft and requested it now be reviewed with the DOD and with Mr. Palfrey. (Ink/Betts)

3. Criticality Accident at Livermore, March 25

Mr. Hollingsworth reported briefly on the accident and said there had been no injuries, a slight release of radioactivity, and that emergency procedures had functioned well. Later in the meeting the Chairman said Mr. Charles Johnson, White House staff, had requested a brief written report on the accident. (Ink/Betts)

4. Letter to Mr. Runion re NFS Negotiations

Mr. Hollingsworth said he would review the language discussed by the Commissioners and reported that negotiations are continuing in anticipation of completion by April 1 or 2.

5. 202 Testimony by Dr. Chauncey Starr and Dr. Chew, Atomics International

The Commissioners discussed briefly the request for comments and agreed that it would be desirable to avoid formal comment on the testimony. (Benderson/Ink)

6. Authorization Hearings April 8, 9 and 10

Noting the change in schedule, the Chairman suggested discussion of the possibility of scheduling the executive session portion of the Hearings on the morning of April 8 with Dr. Haworth testifying in the Chairman's absence. Mr. Ink said the draft testimony will be circulated to the Commissioners early next week and added that the Commissioners executive meeting with the Joint Committee will now probably follow the Authorization Hearings. (Ink)

7. NTS Tests Scheduled for the Remainder of FY 63

The Chairman reported that Charles Johnson, White House, had called to say that the proposed schedule is approved.

8. Letter to the President re Weapons Development

Dr. Haworth discussed briefly his view that the letter required recasting and the Chairman suggested Dr. Haworth review the letter to that end. (Betts)

9. Bids for Drilling at NTS

Mr. Ink reported the staff is reviewing the bids and will discuss with the Chairman's staff in preparation for response to the interested Congressmen. (Henderson/Ink)

10. March 23 Letters from Secretary Gilpatric re Transmittal of Information to Canada

Mr. Hollingsworth said the staff papers are in preparation for early Commission consideration. (Betts/Secy)

11. Atomic Industrial Forum March 21 Letter re Third Party Liability Convention

Dr. Wilson discussed briefly the problems for American manufacturers if the language in the supplementary convention signed by Euratom is applied to European facilities constructed by U.S. contractors. Mr. Hennessey said that the modification of the recourse provision (Article V) will be opposed by the U.S. in the IAEA Convention. The Commissioners requested preparation of an appropriate letter to the Atomic Industrial Forum and an appropriate letter to Euratom. (GC/Wells)

12. March 26 AEC Staff Discussions with Joint Committee Staff re Private Ownership

13. Chairman's Visit to Congressmen Albert Thomas and Ben Jensen

PRESENT

Dr. Seaborg
Dr. Wilson
Dr. Haworth
Mr. Hollingsworth
Mr. Hennessey
Mr. Henderson
Mr. McCool

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JOHN B. ANDERSON, ILL.

Congress of the United States
JOINT COMMITTEE ON ATOMIC ENERGY

March 14, 1963

Honorable Glenn T. Seaborg
Chairman
U. S. Atomic Energy Commission
Washington 25, D. C.

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NOV 86

Dear Dr. Seaborg:

Attached is a copy of a lecture delivered by Mr. David E. Lillienthal at Princeton University on February 19, 1963 entitled "Whatever Happened to the Peaceful Atom?".

Mr. Lillienthal suggests the need for new premises to underlie the future development of civilian nuclear power. Among these premises is the following:

" . . . at the time and place the economics of power show need for atomic energy when compared with the costs and safety of power from other sources of energy the manufacturers of equipment and the utility industry, private and public, will supply that need without Government prodding."

This statement would appear to be at sharp variance with the Commission's recent study on the civilian nuclear power program.

The Committee would appreciate receiving the Commission's comments on this and related aspects of Mr. Lillienthal's lecture on the development and use of civilian nuclear power. It would be appreciated if we could have these comments prior to the next phase of the "202" hearings which

are scheduled for April 2-4, 1963. The Commission's comments might also be included in the record of Phase II of the "202" hearings.

Your cooperation is sincerely appreciated.

Sincerely yours,



FOR

John T. Conway
Executive Director

March 29, 1963

UNCL. BY DOE
NOV 86

Honorable John G. Pastore
Chairman, Joint Committee
on Atomic Energy
Congress of the United States

Dear Senator Pastore:

In a letter dated March 24, 1963, Mr. Bauser requested AEC comments on a lecture delivered by Mr. David E. Lilienthal at Princeton University on February 19, entitled: "Whatever Happened to the Peaceful Atom?". He asked specifically for comment on Mr. Lilienthal's statement that manufacturers of equipment and the utility industry will supply future energy needs, whether from nuclear fuels or otherwise, without government prodding.

The Commission's position on the need for nuclear power and the role of the government in its development, is set forth in the Commission's recent Report to the President on the Civilian Nuclear Power Program. After a searching review of the civilian nuclear power program, the Commission concluded that:

"Nuclear energy can and should make an important and, ultimately, a major contribution toward meeting our long-term energy requirements, and, in particular, that: The development and implementation of nuclear electric power is clearly in the near- and long-term national interest and should be vigorously pursued."

The efforts undertaken by man today have a long term significance in approaching that of developing a major new source of energy. As trustees of our natural resources for future generations, we must work and plan for the day when fossil fuels are no longer adequate to supply the spiralling energy requirements of a scientific age. We need to preserve enough of the fossil fuels to satisfy these special requirements, such as transportation, metallurgical processes and the production of synthetic materials.

Furthermore, we do not discount the more immediate importance to the American consumer of lower cost power, particularly in high cost areas of the nation. Even what may appear to be relatively small unit cost reductions assume major importance when applied to the large and rapidly expanding power industry. For example, at current rates of production of electricity, there would be approximately one billion dollars of savings each year for consumers for each one mill

Charles Johnson

per kilowatt hour reduction in the national cost of power. For the predicted rate of production of electricity in the mid-1970's, this annual savings would be approximately two billion dollars. These figures are to be compared with expenditures of about 1.3 billion dollars to date on the Commission's civilian nuclear power program.

It is true that nuclear power development has been slower and more difficult than was envisioned in some of the more extreme forecasts of the early days of atomic energy. However, it has proceeded at about the pace that many informed scientists and engineers, particularly those closely associated with the program, expected from the beginning.

The Commission considers the over-all efforts of government and industry toward the development of civilian nuclear power in the short period of about ten years to have been very successful. Nuclear power is on the threshold of economic competitiveness and can soon be made competitive in areas consuming a significant fraction of the nation's electrical energy. Indeed, in the past year the utility industry has demonstrated clearly its confidence that large nuclear plants can be competitive with conventional plants in areas where conventional fuel costs are high. Further technical developments and economies possible in part from increased volume still hold promise of "low cost" power.

The current status of civilian nuclear power technology is the direct result of a research and development effort which, for the past few years, has represented only about one or two percent of the total manpower devoted to federally supported research and development. The government's financial support for the program has remained relatively constant during these past several years and is, we believe, relatively modest in comparison with the potential benefits to the nation.

Mr. Lillenthal has expressed the view that atomic energy should be brought into the "mainstream of man's affairs." This has been a long-standing objective of the Commission program and we believe that considerable progress has been made in achieving this goal. An important step in this direction is the Commission's proposal to modify the Atomic Energy Act to permit private ownership of special nuclear material.

Specifically, as quoted in Mr. Bauser's letter, Mr. Lillenthal believes that when nuclear power is needed, industry will supply the need "without government prodding." Unfortunately, the full cost of developing nuclear power is beyond that which industry could have been expected to shoulder by itself, on anything approaching a reasonable timescale. Therefore, as in other areas requiring a massive development, such as aircraft and practical space applications, the government has very properly assumed leadership and provided much of the funding.

The Commission is moving towards putting the nuclear power industry on a commercial basis as quickly as is reasonably possible. However, in order for industry to assume a significant and growing responsibility for further development in the field, it is essential that its business be on a scale such that profits can be used in the normal manner to carry on the more advanced developments. We believe that relatively modest assistance by the AEC will assure the crossing of the economic threshold, will bring about widespread acceptance of nuclear power by the utility industry and thus will make possible a healthy nuclear equipment industry that can finance an increasing share of the future developments.

Over the longer term, it is, of course, essential that increased emphasis be placed on the more advanced developments of improved converter and breeder reactors. Because of the extensive nature of the research and development and the long times involved before financial returns can be expected, in our judgment industry cannot be expected to carry this burden by itself. Hence, until such time as the technology of breeder reactors has also been developed to the point of economic competitiveness, it will undoubtedly be necessary to continue developmental support by the government.

As the Committee is aware, great importance is attached to the public health and safety aspects of nuclear power. This attention to safety is reflected in the development program which seeks a better understanding of phenomena having an effect on reactor safety and in our regulatory processes which provide detailed independent safety reviews of plant designs and operating plans. The development programs continue to find beneficial uses for certain radioactive fission products and continue to explore more convenient methods for storage or disposal of radioactive waste. Radioactive waste disposal techniques currently available have been demonstrated to be safe and sufficiently low in cost that they would not impose a significant economic handicap for the nuclear power industry.

Important as civilian power is, the potential of the atom extends into many other important areas of human endeavor. For example, nuclear energy will be essential to the conquest of space. Compact, long-lived, light-weight power sources will be necessary for long-range space missions, such as manned expeditions to the other planets of the solar system. The establishment of world-wide systems of communications and weather satellites may well be dependent on the availability of nuclear energy sources, from both reactors and radioisotopes.

Radioisotopes have been invaluable in research, medicine, agriculture and industry. In medicine, for example, thousands of hospitals, clinics and physicians are using radioisotopes to diagnose illness in at least a million patients a year, and to treat cancer and other ailments in many thousands of patients. A single radioisotope -- iodine 131 -- is being used some half-million times a year to diagnose

It is now clear that there are important industrial and scientific uses for nuclear explosives. The value of nuclear explosives in scientific research is illustrated by the identification of two new elements, einsteinium (99) and fermium (100) in the debris of the 1952 Mike explosion. Project Coax, the current experiment in the Flowshare Program to study heavy element production, is an extension of this research. Furthermore, recent experiments have indicated the economic promise of the use of nuclear explosives in large-scale earth moving and in certain types of mining.

We also feel a continuing responsibility for the advancement of basic knowledge in those areas of science that are of underlying importance to all aspects of atomic energy. History demonstrates that long-term progress is based on an ever-expanding fund of basic knowledge. The Commission's research and development efforts have also had an important impact on progress in other scientific areas. To cite only one example, a major impetus to the rapid advances in knowledge of genetic information coding is directly traceable to the development of ion exchange techniques in Commission sponsored research. It also seems unrealistic to consider that any of the programs of research in the life or physical sciences which are supported by the Federal government are discrete or apart from the total. Even though much of the Federal support is "mission-oriented," the interdependence and essential unity of science make it impossible for one part to grow apart from the rest. One important and interesting illustration of this interdependence is the recent agreement between the AEC and the National Institutes of Health to undertake a joint program to study chemical and radiation co-carcinogenesis. This joint effort grew out of the requirements of each group to make use of the other's special knowledge.

Numerous mechanisms currently exist to allocate the Federal research dollar among the various scientific areas most deserving of support. In reviews by the Bureau of the Budget, the Congress, the President's Science Adviser, the Office of Science and Technology, and various ad hoc committees, the Commission's needs are weighed against all others to achieve a balanced program of Federal support for scientific activities.

The lecture by Mr. Lilienthal presents many interesting statements. We have not attempted to comment on all of them, some of which are not related to the subject matter of the "202" hearings.

I trust that these comments will be helpful in your consideration of the development, growth and state of the atomic energy industry. Please advise if we can be of any further assistance.

Sincerely yours,

SIGNED, A. R. HOLDSWORTH

General Manager

UNITED STATES GOVERNMENT

Memorandum

UNCL. BY DOE
NOV 86

TO : R. E. Hollingsworth, Deputy
General Manager

DATE: March 28, 1963
Approved R. E. Hollingsworth
R. E. Hollingsworth
Date 3/28/1963

FROM : W. B. McCool, Secretary

SUBJECT: ACTION SUMMARY OF MEETING 1919, WEDNESDAY, MARCH 27, 1963, 11:25 A.M.
ROOM A-410, GERMANTOWN, MARYLAND

SECY: JFG

Commission Business

1. Minutes of Meeting 1906

Approved, subject to review by Commissioners Ramey and Palfrey.

2. AEC 893/7 - Proposed Cooperative Arrangement to Permit Testing
U. S. Fuel in German Reactor

Approved, as revised. (Pittman/Wells)

The Chairman requested an appropriate letter be prepared to Mr. deHoffman of General Atomic. (Pittman/Wells)

The Commission noted the changes in paragraph h and Appendix "B", as suggested by the General Counsel. (Pittman/Wells)

The Commission noted the current DMA and Reactor Development studies will be completed at an early date. (Batts/Pittman)

3. AEC 785/82 & AEC 785/83 - Report to the JCAE on Operations
Under the Indemnity Program

Approved. (General Manager/Director of Regulation)

The Commission requested future reports be presented sufficiently in advance of the April 1 date to provide full Commission consideration. (General Manager/Dir. of Regulation)

4. AEC 901/46 - Attendance of USSR Nationals at ANL Conference on
Transplutonium Elements

Approved. (Wells)

The Chairman reiterated his desire to meet with the USSR visitors and requested consideration be given to the possibility of meeting with Dr. Flerov at an earlier date. (Wells)

Other Business

1. Presentation Ceremony for E. B. Johnson on Occasion of his Retirement

2. Control of Non-Soviet Bloc Guests and Employees

The Commissioners requested a letter be prepared to the JCAE for prior Commission review. (Traynor).

3. Proposed Bethe Article

The Commission requested early and close review. (Traynor)

4. Proposed Agreement with Soviet Union

The Commission noted the proposed agreement would be submitted shortly. (Wells)

cc: Commissioners

American and Northup.

At 11:30 a.m. Commissioners Wilson, Palfrey and I, and Algie Wells met with Sir William Penney (Deputy Chairman, UKAEA) to discuss the extension of the fast reactor exchange amendments to the U.S.-U.K. civil bilateral agreement. We offer an "across the board" agreement, but they have difficulty with their industries on proprietary information.

At 1 p.m. I hosted a luncheon for Sir William Penney at the Mayflower Hotel which was attended by V. A. Vick (Director, Harwell), Sir David Ormsby Gore (British Ambassador), Joseph Stephenson (Scientific Attache, British Embassy), Commissioners Palfrey and Wilson, Algie Wells, Vander Weyden, McDaniel, Betts, Brown, Nordlinger (USAEC London Office), Carl Kaysen and Rollefson.

Helen and I attended a dinner given by Mr. and Mrs. Joseph Stephenson at their home (3159 Tennyson, N.W.) in honor of Sir William Penney.

Friday, March 29, 1963 - D.C.

At 9:45 a.m. I presided over Information Meeting 261 (notes attached). We approved a letter (copy attached) to T. S. Runion (President, NFS) for their use to get final approval for the undertaking from their Board of Directors. We stated the Commission's readiness to go ahead and explained our reservations in forcing utilities to sign up for fifteen years. We discussed the zirconium problem with Rickover.

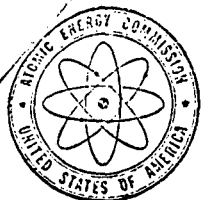
At 10:50 a.m. I presided over Commission Meeting 1920. The Commissioners approved (as revised) transmittal of certain atomic information to Canada (AEC 781/128-129-130).

Earl Hyde is here today and tomorrow to work on our book, Nuclear Properties of the Heavy Elements, and to discuss the possibility of his coming to Washington for a year as my assistant.

At 10:30 a.m. I called William Foster concerning his letter of yesterday on Plowshare (copy attached). I said that there will probably be some differences of opinion and asked whether they are planning a Meeting of the Principals on this. He said that they have several items to be taken up within the next week or so. He mentioned that the draft treaty and some of the annexes have been circulated; but some of the comments, including the AEC's, are not in yet. He thinks that a quota would be a very difficult thing to match up on the basis of no revelation because it would be hard politically. I said that we would be subject to the charge that we have cut off an important program with a lot of promise. I said that we would almost have to meet the argument that the other side could develop something useful by using their Plowshare tests for weapons development by saying that they couldn't do very much with just a few tests. He then asked, how about five or six tests? I said this is the number our people want. However, three or four are a lot better than none. I mentioned that not much can be done with the old scheme of using obsolete devices that could be shown. Also, there will be a terrific political impact to disclose anything, obsolete or not. Foster agreed that this is something which should be discussed by the Principals. He said they will make the necessary arrangements.

At 10:45 a.m. Wiesner called to say that Bundy is going to hold off on the Bethe paper. Meanwhile, he and Bundy feel that perhaps the government should (and I agreed) take the 205 report and sanitize it. I said we are in the process of preparing a public statement on our own results and it is just about ready to be coordinated with DOD. He said that maybe this should go independently--the 205

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



UNCL. BY DOE
NOV 86

COPY NO. 15

March 29, 1963

INFORMATION MEETING 261

9:45 a.m., Friday, March 29, 1963, Chairman's Conference Room, D. C.

1. Letter to Joint Committee re Zirconium Industry Recommendations

The General Manager noted the industry's letters of recommendations to various Congressmen and said that on Wednesday last, AEC representatives had discussed the matter with Joint Committee members and representatives of the zirconium industry. Congressman Holifield had said the AEC would respond to the letters in preparation for expected discussion at the 202 Hearings next week. The General Manager and Admiral Rickover discussed briefly the main problem proposed in the industrial letters, which is the matter of a request for an extension of the procurement program for a period of five years. The Commissioners approved the proposed letter, as revised, in their discussion at the meeting. (Brown/GM)

2. NASM 231

Available in the Chairman's office for the Commissioners' information.

3. Commissioners' March 28 Meeting with Sir William Penney

Noted.

4. Letter to Senator Pastore re Mr. Lilienthal's February 19 Speech

The letter was approved for transmittal with the changes requested at the meeting. (Brown/GM)

5. Extension of Dr. Harold Agnew's Assignment to SACEUR

The Chairman noted his letter from Dr. Agnew saying that after discussion with General Lemnitzer and others, he had decided to extend his assignment to SACEUR.

6. Letter from William Foster, ACDA

The Chairman discussed briefly Mr. Foster's negative reply and in a telephone conversation with Mr. Foster during the meeting, discussed the Commission's views further, and suggested a meeting of The Principals to discuss the problem and Mr. Foster agreed this is a desirable course of action.

7. Bethe Statement

The Chairman reported Dr. Wiesner agrees publication of the statement at this time would be unfortunate and Dr. Wiesner has so informed Dr. Bethe.

8. Consideration of Publication of a Statement on the Bethe Report

The Chairman said Dr. Wiesner had discussed with him the desirability of publication of a declassified statement on the report and said the matter will be discussed at a meeting on Monday. The Chairman informed Dr. Wiesner of AEC's preparation of a public release on results of 1962 test series now in coordination with the Department of Defense. A copy of the statement is to be sent to Dr. Wiesner today. (Brown/GM)

9. Letter to Chauncey Starr re SNAP 4 Program

In response to the Chairman's request, the General Manager said he hoped to have a draft response available today.

10. Comments on 202 Testimony by Chauncey Starr and Mr. Chew, Atomics International

In response to the Chairman's query, the General Manager said he thought the Commission should be prepared to comment after the testimony had been given.

11. N.S. SAVANNAH Schedule

The General Manager confirmed that the requested changes during the work at Galveston are on schedule.

12. Letter to Mr. Runion re NFS Contract

The letter was approved as discussed at the meeting. (Brown/GM)

13. Controller General's Report on ANP and Other Programs

In response to Mr. Palfrey's request, the General Manager said no formal Commission consideration of this and similar reports is considered necessary, but staff undertakes appropriate review and action. (Abbadessa)

14. Service of Injunction on Association to Preserve Bodega Head

Mr. Hennessey reported briefly on the injunction served on the Association with respect to construction of the Bodega Bay reactor. The Chairman suggested circulation of recent letters of protest. (Brown)

15. Agenda for the Week of April 1, 1963

Approved, as revised. (Secy)

PRESENT

Dr. Seaborg
Dr. Wilson
Mr. Palfrey

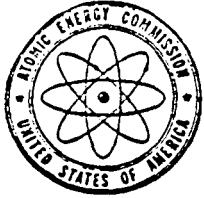
General Luedecke
Mr. Hennessey
Mr. Brown
Admiral Rickover*
Mr. Mandil*
Mr. McCool

DISTRIBUTION

Commissioners
General Manager
General Counsel
Secretary

W. B. McCool
Secretary

*Attendance for first item only



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

MAR 29 1963

UNCL. BY DOE
NOV 86

Dear Mr. Runion:

Thank you for your letter of March 14, 1963, providing information on the current status of arrangements between Nuclear Fuel Services, Inc., and other parties concerned in the financing, construction and operation of the proposed chemical reprocessing plant.

We appreciate your forwarding the agreements as currently drafted and look forward to receiving the finalized agreements when they become available, including the agreement with the Atomic Research and Development Authority of the State of New York (ARDA). The attachments to your letter are being reviewed by the AEC staff; our comments on these attachments will be provided in a separate letter.

Your letter also requested a statement of the present AEC position regarding the Nuclear Fuel Services project and AEC's withdrawal from the chemical reprocessing of private fuels.

Since 1956, the AEC has actively encouraged private industry to provide a commercial capability for chemical reprocessing of irradiated fuels to be discharged from power reactors. As one element of encouragement to industry, AEC stated its willingness to make available to a private reprocessing plant certain quantities of spent fuels discharged from Government-owned reactors.

In the absence of a private reprocessing capability, the AEC announced in 1957 a policy whereby irradiated fuels would be accepted by AEC under arrangements which would provide for chemical reprocessing. In announcing this policy, the Commission made clear its continued desire to encourage the development of a commercial capability and stated that the AEC's acceptance of irradiated fuels would be terminated when reasonably priced private reprocessing services became available.

To implement the policy announced in 1957, under which AEC would accept irradiated fuels, authorization and appropriations were secured from Congress to permit the modification of existing Government facilities in order to reprocess the power reactor fuels. However, because of the NFS reprocessing project the Commission has not proceeded to undertake these modifications.

MAR 29 1963

Mr. T. C. Runion

- 2 -

At the heart of the NFS proposal is the premise that AEC would cease receiving licenses irradiated fuels, so as not to compete with NFS for the available commercial business. This, of course, is as it should be, and to the extent that the NFS project makes available to the industry reprocessing services for specified fuels under reasonable terms and charges, the AEC will no longer accept such irradiated fuels under the 1957 announcement. We understand that you have negotiated arrangements with the five IRC utilities, wherein those utilities have voluntarily agreed to certain contractual provisions including a fifteen-year contract period, ending in 1980. AEC, of course, has no objection to such arrangements. However, AEC does not feel that it can at this time commit itself to a complete withdrawal: e.g., as regards those fuels for which reprocessing charges have not been established, or where its effect could be to compel an acceptance of the long term contract period.

The Commission has a keen desire to see the NFS project brought to fruition and is greatly encouraged with the progress that has been made. With respect to the negotiation of the AEC-NFS contract, under which 625 revenue days of Government fuels would be processed by NFS over a five-year period, I am informed that the negotiating teams have developed a schedule under which a contract document, agreed to by the negotiators, is expected to be completed by April 2.

Sincerely yours,

(Signed) Glenn T. Seaborg

Chairman

Mr. T. C. Runion, President
Nuclear Fuel Services, Inc.
912 - 17th Street, N. W.
Washington, D. C.

Lusdecka:lj 3/29/63
page 2 retyped

347

CROSS REFERENCE SHEET

Document #
901793

TITLE OF DOCUMENT US. Draft Test BAN Treaty. 3/28/63
2 pages. Foster to Seaborg.

This document requires further classification review and has been removed from this folder.

Jeffrey B. Hale
Name

August 22, 1986
Date

does both. I said they get a little interrelated. He said they are going to try to call a 205 meeting for other reasons on Monday, April 1st, and asked if I could have a copy of our paper ready for that meeting. I said that I could do this.

We then discussed presenting the Fermi Award to Oppenheimer. He said the President thinks this is fine and hopes the clearance issue won't be a problem. I told him that when General Clifton called, he had raised the problem of trying to face the clearance and I, personally, thought this would postpone it. Jerry asked when I planned to announce it. I told him we are now writing a formal letter to the President recommending that the award be given to Oppenheimer and requesting his approval. I pointed out this is required under a section of the AEC Act. I said I think it should be announced pretty quickly after the decision as it will certainly leak. He asked that we also send over a copy of the letter we used with Bethe or Teller. He then asked if I feel a good case could be made for perpetuating the specialized prize in government, and I told him, yes, I think so. He said to suppose the choice was two \$50,000 general prizes--at this point I said I will want to discuss this with him. He thinks we should try to rationalize the entire thing.

I had lunch at the University Club with Earl Hyde, Howard Brown, Chris Henderson, Arnie Fritsch and Vic Schmidt.

At 2:30 p.m. I presented a check for \$350,000 (a research grant) to J. H. van Roijan, the Netherlands Ambassador.

Earl Hyde had dinner at our home and then we worked on our book.

Saturday, March 30, 1963 - D.C.

I worked with Earl Hyde in the office until 4 p.m.

Wiesner called and said the President has okayed our memorandum to him of March 25th, with the recommendation of the General Advisory Committee that the 1963 Fermi Award be granted to Dr. Oppenheimer, by writing, "Yes," across the face of the memorandum. (White House will retain the memo.)

Wiesner called me again to say that Carl Kaysen had asked him to talk with me on the Plowshare Treaty to see if we can come to some solution. I told him I think Plowshare has a great deal of promise, but we can't undertake the program with the obsolete revealable devices. He asked if Johnny Foster can invent a peaceful weapon we can explode, and I said Foster can. He asked if I will send a paper over to him showing our analysis of all the possibilities, plus a statement showing our choice. I said we have all of this in memoranda; but I don't know whether our final conclusion will show. They will explore the number of possibilities which led to our choice and I will send the package to him.

I had lunch at the Metropolitan Club with Earl Hyde and Harry Smyth. Afterward I took a walk along the Mall with Earl to try to convince him to come to Washington to work with me.

I worked on AEC papers at home.

Sunday, March 31, 1963

I worked on the following speeches: "Education and Economics" to be given at the University of Kentucky, April 25th; "Higher Public Education and the National Good," to be given at the University of Massachusetts, April 29th; and "The Creative Scientist: His Training and Role," to be given in Albuquerque on May 7th. I also worked on, "Nuclear Properties of the Heavy Elements."

I read industrial 202 testimony preparatory to JCAE hearings this week.

Monday, April 1, 1963 - Washington - Dayton, Ohio - D.C.

I flew to Dayton, Ohio, in an Air Force Jetstar which left Andrews Air Force Base at 8:55 a.m. (after a change of plane) and arrived in Dayton at 10 a.m. Congressman Paul I. Schenck (Dayton), Major General A. T. Wilson and Howard Brown were also on the plane.

I gave the keynote opening address, "Basic Research and Our National Security," for the National Security Seminar, Industrial College of the Armed Forces, at Patterson Cooperative High School (118 E. First Street). On the stage with me were the Reverend Raymond Roesch (President, University of Dayton), Congressman Schenck, James Fain (Chairman of the Seminar), Ed Dayton (Daily News), John Yeck (Vice President, Dayton Chamber of Commerce), Frank Somers (Mayor of Dayton), S. C. Allyn (Honorary Chairman), and Colonel L. L. Stefen (USAF).

I held a press conference at the Van Cleve Hotel with Dayton TV and radio representatives. The questions were confined to the content of my speech.

I had lunch at the Van Cleve Hotel with the above group and W. B. Creamer (Manager AEC Dayton office), Howard Nason (President, Monsanto Research Corporation), Louis Polk (Vice President, Bendix Corporation), Glen Thompson (Editor, Dayton Journal Herald), David L. Scott (Vice President, Monsanto-Mound), General (four-star) Mark Bradley (Commander, Wright Patterson Air Force Base), and others. I gave a short talk on Atomic Energy Commission activities in Ohio.

I visited Mound Laboratory in Miamisburg and saw Pu-238 processing, including 50 gm. of Pu-238 dioxide and 40 gm. buttons of Pu-238 metal (a real thrill), Po-210 processing, He³, Ar, Xe, etc. isotope separation by thermal diffusion, research laboratory work including work on PuO₂ (Pu-239) in glasses, etc.

I flew back to Washington in the Jetstar which left Patterson Field at 5:40 p.m. and arrived at Andrews Air Force Base at 6:50 p.m.

Tuesday, April 2, 1963 - D.C.

I attended the industrial portion of the JCAE 202 hearing, where W. Johnson and C. Weaver of Westinghouse and C. Starr of Atomics International testified. They agreed with the AEC Civilian Nuclear Power Report except when the approach competed with their own atomic power developments.

I had lunch with Vic Schmidt to explore his plans to leave this summer. He wants to return to California to pursue personal plans.

At 2 p.m. I had a telephone call from General Luedecke. He said he and the staff have been meeting with the NFS people primarily over what to do about the executive memo and our response. He thinks they have it pretty well resolved. Runion wants to get a statement he has written to his people by 4 p.m. Al read the statement to me and I said I had no objections.

I asked how things are going with the Hanford visiting team. He said Chilton has accepted and they are set to arrive on April 8th. Underhill will be there only two days but they hope the other two will stay on as long as it is necessary--at least three more days. I asked if he has given them any indication as to what their responsibilities will be and he said Ed Bloch will take this with him. I asked what they will be roughly. He said they will identify anything that can be taken out of the plant and places where the plant can diversify more.

He said the objective of their examination will be explained, and they will be asked to go through and identify anything they feel can be handled in a different manner. I asked about the GE-AEC team of Albaugh and Holstad. He said that in the final analysis, they have decided that since AEC will have to provide a chairman, they will make Holstad the chairman. On our side, as well as other members of the staff, our man will be with them. I told him Albaugh has called and was a little concerned about getting the proper background information for his assignment. In some ways it is a difficult assignment because Luedecke doesn't know exactly where Fink and Johnson stand. He would like some direct instructions. I asked Luedecke what he thinks about Albaugh's coming in. He thinks this is a little presumptuous on our part as he is a GE manager. He said that Ed Bloch will arrive at Hanford at 8 a.m. on Monday morning, April 8th and I asked him to have Ed talk with Albaugh immediately upon arrival. I said I will advise Albaugh that Ed will do this. Luedecke said they had sent the charter to Travis and he should be talking to the GE people about these matters now.

I told him I spent the morning at 202 Hearings and that I hope these are covered at the Division of Reactor level. He said he was sure this is being done.

I told him that Commissioner Wilson has raised the question of whether we should invite Lilienthal up to our office for a little talk before the Hearings. Luedecke says he hasn't thought about this, but his first reaction is that it is probably better to do this after the Hearings.

In the afternoon Harry V. Hedin (representative of the Vasa Order of America) came in and presented me with a replica of two old Swedish seals. I wrote to my mother and sent her the seal of Dalarna.

Wednesday, April 3, 1963 - D.C.

At 9:15 a.m. I addressed the Plowshare Advisory Committee which is meeting here today. The committee members present were: Phil Abelson, Willard Bascom, James Doolittle, Richard Latter, Don McLaughlin and W. R. Lovelace, II.

At 9:45 a.m. I presided over Information Meeting 262 (notes attached).

I had lunch with Lewis Strauss at the University Club. I told him that the AEC is awarding the 1963 Fermi Award to Oppenheimer. Strauss took this news somewhat hard but said he will make no adverse press comments.

I received a letter (attached) from Petrosyants, dated March 23rd, saying that the last part of May will be all right for my visit. I received a call from Brigadier General Godfrey T. McHugh at the White House telling me the President has offered his plane for a non-stop flight to Moscow (leaving 8 p.m., Saturday, May 18th).

At 2:15 p.m. I met with Chauncey Starr. He pointed out there is going to be a concerted push by supporters of the coal industry and others against the nuclear power program. I told him the Commission is already aware of this. He again referred to his suggestion that there be a review of specific programs, such as the spectral shift reactor, in which the opinions of contractors involved in the program, such as Atomics International, might be involved. I said I will look into it.

At 2:30 p.m. I presided over Commission Meeting 1921 (action summary attached). We approved a letter and enclosure to ACDA regarding the Plowshare article of a test ban treaty (copy attached).



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

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NOV 86

COPY NO. _____

April 3, 1963

INFORMATION MEETING 262

9:45 a.m., Wednesday, April 3, 1963, Chairman's Conference Room, D. C.

✓ 1. Draft Letter to the President re Weapons Development

The new draft is to be circulated for the Commissioners' review. (Brown)
MS/RD dated 4/4/63

2. Letter to Mr. William Foster, ACDM, re PLUMBLINE Program under the Proposed Arms Ban

The Chairman said a meeting of The Principals is now scheduled for 4:30 p.m. on Friday, April 5 to discuss this matter and the Commission discussed the draft letter to Mr. Foster. The re-draft is to be circulated to the Commissioners for their review and it is to be determined whether it would be desirable to suggest to ACDM deferment of the meeting of The Principals pending Commission review of the proposed letter. (Brown)

3. Transmittal of Information to Turkey

The Chairman said Dr. Gerald Johnson had telephoned on March 30 regarding the Commission's letter of March 11 to the President re transmittal of information to Turkey. A DOD letter is in preparation to the AEC which speaks to the problem of the declassification on transmittal of information on PAL and Dr. Johnson said DOD will be pleased to discuss any problems the Commission may have on the matter.

4. Document from Mr. Bundy

The Chairman noted the document is available in his office for the Commissioners' review.

5. Ambassador Esthill's (EURATOM) Meeting with the Commission April 11

The Chairman suggested the Ambassador be invited to meet with the Commission at 11:30 a.m. on the 11th, to be followed by luncheon in Germantown. (Brown/Wells/Seay)

6. President's Courtesy Letter re Visit to AEC Sites

7. Dr. Wilson's Discussion with Laura Gray, Atomic Energy of Canada, Ltd.

Dr. Wilson said he had talked briefly with Mr. Gray this morning about their proposals on construction of a heavy water plant, and that Mr. Gray said he had not been aware of the Commission's recent decision on the price of heavy water. Mr. Pittman will give Mr. Gray further details on this matter. (Pittman)

8. March 28, 1963 Letter from Dr. Harold Brown, DOD, re Funding for PIATO Study Program

Noted.

9. General Manager's March 29 Memorandum re Army-Navy Reactors Program

Dr. Wilson discussed the desirability of publication of a rebuttal by the Department of the Army based on the information in the General Manager's memorandum. In response to Mr. Ramey's suggestion that the Commission review the Army Reactors Program, the General Manager said he plans to schedule a briefing on this matter during the week of April 8 and the Commissioners suggested discussion of Dr. Wilson's recommendation at that time. (Pittman/Seey)

10. Massou Pact Discussions

Mr. Palfrey reported briefly on his discussions last week with Mr. Nitze and said AEC representatives would participate in the follow-on trip.

11. Dr. Wilson's Testimony at Authorization Hearing Monday, April 8

The Chairman noted that since he will be at Savannah River on April 8, Dr. Wilson will testify for him.

12. Commissioners' Informal Review of Policy Matters

(Dr. Wilson left the meeting)

13. Negotiations with NFS

The General Manager discussed briefly Mr. Runion's wire to the Davison Company stating the Commission's position on several matters as a result of the recent joint discussions. Copies of the telegram are to be circulated to the Commissioners.

The General Manager added that discussions of the proposed contract have been held with the BOB and said he thought it would be necessary to discuss the proposed contract in detail with the Joint Committee prior to signing the contract.

14. Funds for Power Reactor Demonstration Program in FY 64 Authorization Bill

The General Manager discussed our request for additional authorization of \$5 million for the Power Demonstration Program as related to the existing cumulative carry-over authorization funds. The General Counsel was requested to prepare a legal opinion (General Counsel)

15. Additional Funds for the FARET Reactor (Argonne)

The General Manager discussed briefly the problem of estimated additional costs of \$5 million. He will consider the matter further and discuss the problem with the Commission. The Chairman requested a report on the status of FY 63 spending. (Abbadessa)

16. Support Services Contract for NTS

The General Manager reported that the Contract Selection Board had now narrowed the selection to four possibilities and further discussions will now be held with them.

17. Mr. Ramey's Meeting with Mr. Swink Yesterday to Discuss the Proposed NTS Community

Mr. Ramey reported briefly on the discussions he and staff held with Mr. Swink yesterday.

PRESENT

Dr. Seaborg	General Luedcke
Dr. Wilson	Mr. Hollingsworth
Dr. Haworth	Mr. Ferguson
Mr. Ramey	Mr. Brown
Mr. Palfrey	Mr. McCool

DISTRIBUTION

Commissioners
General Manager
General Counsel
Secretary

W. B. McCool
Secretary

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TRANSLATION

Enclosure 2
Page 1
A-21101
MOSCOW

UNCL. BY DOE
NOV 86

State Committee for the Use of Atomic Energy,
U.S.S.R.
MOSCOW

March 23, 1953

28 4/21/53

Dear Mr. Seaborg:

I have received your letter of March 2, 1953.

I agree with you that the preparation of the draft Memorandum on an exchange between our countries in the field of the peaceful use of atomic energy represents great progress.

It seems to me that the few details of the Memorandum which remain unsettled will be easily resolved during our meeting in Moscow.

I was pleased to learn that you had accepted my invitation to visit the Soviet Union.

Your desire to come to the U.S.S.R. at the end of May or the end of June of this year is quite acceptable; we are awaiting the arrival of you and your colleagues at a time convenient to you.

Sincerely,

/s/

A. Petrosyants

RECEIVED
Mr. G. Seaborg
Chairman of the United States Atomic Energy Commission
Washington, D.C.

COMM. AFFAIRS
DIVISION
INTERNATIONAL

1953 APR 2

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AIRGRAM

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TO : DEPARTMENT OF STATE MAR 27 AM 10 54

ADVANCE COPY

UNCL. BY DOE
NOV 88

FROM : AmEmbassy MOSCOW

DATE: March 26, 1963

SUBJECT: Atomic Energy Exchanges

REF : Embtel 2348, March 20, 1963

*F 1977 to Moscow
AEC: Norman Brand*

A personal letter from the Chairman of the State Committee for the Use of Atomic Energy, Mr. A. Petrosyants, to Dr. Seaborg is being transmitted with this Airgram. The letter replies to Mr. Petrosyants' invitation to Dr. Seaborg to visit the U.S.S.R. this spring, suggesting the latter parts of May or June.

In this letter Mr. Petrosyants agrees with Dr. Seaborg that the settlement of the remaining issues in the Atomic Energy exchange negotiations can be accomplished during Dr. Seaborg's visit to the U.S.S.R., which Mr. Petrosyants welcomes at either time suggested by Dr. Seaborg.

A translation of the letter is also enclosed.

For the Ambassador:

Eugene S. Staples
Counselor for Cultural Affairs

Enclosures: *as per M*

1. Original letter.
2. Translation.

Declassified following removal
of telegraphic reference.

FORM 8-62 53-325

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JFK:cbh

Content and Circumstances approved by:
WBS:cbh/44

JFK:cbh

354

UNITED STATES GOVERNMENT

Memorandum

RECEIVED BY DOE
NOV 86

TO : A. R. Treadwell, General Manager

DATE: April 4, 1963
Approved: *[Signature]*
A. R. Treadwell
Date: *[Signature]*

FROM : U. D. McCool, *[Signature]*

SUBJECT: AGONY SUMMARY OF MEETING 1921, WEDNESDAY, APRIL 3, 1963, 2:35 P.M.,
ROOM 1113-B, D. C. OFFICE

SLW:JCH

General Business

1. Proposed Letter on Enclosure to ACDA Re Fleishman Article.

Approved as revised. (Kelly)

The Chairman noted he would discuss the matter with Mr. Foster,
(Secretary)

2. Minutes of Meetings 1908 and 1910

Approved, as revised, subject to comments by Commissioner Roworth.

3. AWC 664/72 & AWC 664/76 - U. S. Department of Labor Proposed
Reflection Safety and Health Standards

Approved as revised. (Bloch/Western)

The Commission requested revision of the proposed letter to the
Department of Labor to include only the "fall-back" position. The
letter should also include an additional sentence to paragraph 6 as
suggested by Commissioner Roney. (Bloch/Western)

4. AWC 1099/3 - Amendment to Charter of the Labor Management Advisory
Committee

Discussed.

The Commission requested preparation of a discussion paper to
include reference to the desirability of exploring with labor
representatives possible broadening of the scope of the LMAC. (Smith)

April 4, 1963

5. AEC 1122/2 - Proposed Task Force for Economic Development of Richland

Approved as revised. (Bloch)

Commissioner Ramey requested dispatch of a supplemental instruction clarifying the status of the AEC-GE study group as an independent study group. (Bloch)

The Commission agreed that the Task Force may be composed of four to six members. (Bloch)

The Chairman requested appropriate revisions in and early dispatch of the letter to Senator Jackson and the press release. (Bloch/Clark)

6. AEC 855/58 - Licensing of Westinghouse Activities Under the Nexva Program

Approved. (Vinciguerra)

7. Reprogramming of Funds for FARET

The Commission approved reprogramming \$5.0 million from funds requested for the Spectral Shift Reactor prototype to the FARET facility. (Abbadessa)

The Commission also noted BOB approval of reprogramming for the proposed cooperative arrangement to permit testing U. S. fuel in the German AVR. (Abbadessa)

Mr. Abbadessa reported on his conversation with the JCAE staff regarding the procedure to be followed for the possible \$5.0 million reduction in civilian power demonstration reactor funding.

8. AEC 262/112 - Proposed Extension of Contract with E. I. du Pont de Nemours & Company

Discussed.

9. AEC 181/101 - Preferential Consideration to Selection of Contractors Having Commercial Atomic Energy Programs
Deferred.
10. AEC 181/102 - Extension of Operating and On-Site Service-Type Contract
Deferred.
11. AEC 20/146 - Proposed Extension of Contract with Lucius Pitkin, Inc.
Deferred.

cc:
Commissioners

April 3, 1963

UNCL. BY DOE
NOV 86

Dear Bill,

I am enclosing for your information
and use an analysis of the Ploeghara Annex
to the "draft" Test Ban Treaty.

Sincerely,

/s/ Glenn T. Seaborg

Glenn T. Seaborg

Honorable William C. Foster
Director, United States Arms Control
& Disarmament Agency
Washington 25, D. C.

Enclosure

Identical letters to:

Honorable Jerome B. Wiesner
Honorable McGeorge Bundy
Honorable John A. McCone
Honorable Dean Rusk
Honorable Robert S. McNamara
Honorable William C. Foster
Honorable Gerald W. Johnson

DO FILE *General*

4/3/63

PROVISIONS FOR PLOWSHARE IN A
NUCLEAR WEAPON TEST BAN TREATY

UNCL. BY DOE
NOV 86

I. Introduction

The device design revelation safeguards in the present draft treaty for assuring that significant progress in weapons development by testing cannot be made under the guise of nuclear detonations for peaceful purposes (Plowshare) are such that only very limited progress can be made in Plowshare and Plowshare devices. It is desirable to find a Plowshare safeguard which will permit reasonable advances in Plowshare without permitting testing for weapon development sufficient to change the military balance. Any safeguard will involve some risk of cheating, and consideration of various safeguard provisions or combinations of them must involve consideration of the acceptable level of risk of changing the military balance through weapon development achieved by testing under the guise of Plowshare in relation to desirable progress in Plowshare. Various safeguards have been considered and a combination of two safeguards is included in the current draft treaty - namely, unanimous consent; or, among other things, disclosure of the design of the devices to be used in Plowshare projects. Only extremely limited progress can be achieved in Plowshare with devices of obsolete design; thus, the price of Plowshare advances under the present treaty would be the revelation of the design of advanced nuclear explosives. Congress, particularly the JCEC, and a significant segment of the scientific and industrial communities have shown a considerable interest in and support for Plowshare. If the progress in Plowshare were to be limited to that which can be achieved with disclosable device design, it is likely that these groups would protest vigorously.

There follows a discussion of each of several types of safeguards and their advantages and disadvantages in the above terms.

II. Safeguards

- A. National Certification. This safeguard would permit conducting Plowshare experiments and projects upon certification by the sponsoring nation that such an activity was for peaceful purposes. It would rely on local public reaction and world opinion to limit cheating. This would probably not constitute an adequate safeguard and would involve an unacceptable level of risk of cheating and, consequently, weapons development. However, it would permit maximum progress in Plowshare.

- B. International Observation. Under this safeguard, which is included essentially in the proposed draft treaty, provision would be made in the treaty for observation of Plowshare projects. The most commonly used example of observation is the type of international observation permitted for Project Gnome. It would include pre-shot, shot-time, and post-shot observation in which the observers would be shown everything about the project except the design of the explosive. In addition, this safeguard could provide for inspection of device diagnostic instrumentation to insure that development information beyond that necessary to establish yield was not provided. Thus, development information provided to the outside observers could be limited to the gross performance of the explosive and would not include providing samples of device debris. This would operate as a deterrent to sophisticated weapon development measurements and would to some extent handicap developmental progress if cheating were

being undertaken. However, confirmation of gross performance could be a significant kind of information in combination with other kinds of activities which could be undertaken under the present draft of the treaty. On the other hand, this safeguard would permit nearly maximum progress in Plowshare. This safeguard might be considered by the U.S.S.R. as another means of getting additional on-site inspection (but it could be pointed out that such additional inspection could be avoided by the simple expedient of foregoing Plowshare activities). The U.S. is already committed publicly to providing for such observation whenever possible.

- C. International Review. This safeguard, which is also essentially in the proposed draft treaty, in addition to the international observation would establish the right of other nations or of a commission to review plans for the project, to observe it, to evaluate its results, and to comment on the project. This safeguard, thus, involves a kind of sanction. Various types of provisions can be made for other nations or a commission to comment on proposed Plowshare activities. However, such a safeguard should not contain provisions for a veto on the project which, for purposes of this paper, is considered to be the same as unanimous consent. The review should involve competent scientists who could comment on the technical justification for the project, its feasibility, its potential value, and its safety. The

sponsoring nation would be required to submit its plans for the project and to provide for observation as set forth in B. above. Provisions could also be made for independent measurements to be taken. The sponsoring nation should have the right and duty to submit a rebuttal to any comments which were made. The additional sanction which is involved in this safeguard above the sanction involved in the international observation safeguard would constitute some further assurance against the risk of cheating. There would still be some risk of cheating, but the risk would be further limited by the sponsoring nation's reluctance to use devices incorporating advanced design principles in such an open situation. This safeguard involves substantial handicap to Plowshare activities but would permit some progress. The U.S.S.R. seems almost certain to resist such a safeguard on the grounds of additional on-site inspection and infringement of its sovereignty.

- D. Pre-Treaty Stockpile. This safeguard involves the establishment under international observation before the effective date of the treaty (or some other agreed upon date) of a stockpile of devices which would be used for subsequent Plowshare projects. This safeguard minimizes the risk of testing new weapon developments and, thus, freezes the Plowshare device technology as of the date of establishing the stockpile. Although it involves minimum risks of cheating, it has the disadvantage of severely limiting Plowshare activities to only those for which devices in appropriate

number, yield and other characteristics are available long in advance of their intended use. The safeguard, thus, has the additional disadvantage of prohibiting projects based on new technical developments, like Project Coach, the heavy element production experiment. There would be the further disadvantage that a stockpile established now would not contain devices with the degree of fusion yield which can be achieved in the near future and which will substantially eliminate any fallout hazard from future Plowshare activities. Furthermore, the establishment and administration of such a stockpile would be very expensive and difficult to administer.

- E. Unanimous Consent. This safeguard would provide that Plowshare activities could be undertaken with the unanimous consent of the original parties to the treaty. It would thus provide any of these nations with the right to veto any Plowshare activity. Based on past U.S.S.R. performance in the use of vetoes, it seems likely that this safeguard would be used to abolish Plowshare and, thus, no progress at all would be possible. In itself, if the veto were not exercised, this safeguard would not provide any deterrence to use of Plowshare activities to advance weapon development. If there are alternate provisions for undertaking Plowshare activities which would not be subject to veto, unanimous consent is a desirable additional provision.
- F. Disclosure of Device Design. This safeguard provides for the disclosure by the sponsoring nation to the other original treaty members of the design of the device(s) to be used in a Plowshare

project. It thus provides the deterrent that a sponsoring nation would be unwilling to disclose any advanced design principles, which they wished to test, to the other nations. In the case of the U. S., this safeguard would essentially dictate that only very obsolete, all-fission, probably gun-type devices would be considered for Plovsshare because of the risk in disclosing advanced design principles to the U.S.S.R. Very little progress can be made in Plovsshare with these devices because of their inefficiency, high cost and, of course, their relatively large fission product contribution to the environment. Also, no device design could be revealed to the U.S.S.R. without authorizing legislation.

Earlier discussion with the JOAB indicates that Congress is loathe to enact this legislation. This safeguard does involve the additional risk that the U.S.S.R. might obtain, even from disclosure of obsolete designs, certain information, such as fabrication techniques, which might advance U.S.S.R. weapon technology. The safeguard also has the additional disadvantage of providing an opportunity for propaganda even when an obsolete design is being used because of the inability to assure world opinion that it is, in fact, an obsolete design without making weapon information available to all countries.

G. Annual Quota. This safeguard provides for a limit on the number of Plovsshare detonations which can be undertaken in any one year. If a nation intended to use Plovsshare to advance weapons technology, the quota safeguard would limit the amount of progress which

could be made in weapon development by testing. The safeguard thus establishes a finite limit to the risk of cheating based upon the number of detonations permitted. It would be particularly good in combination with other safeguards such as international observation and with more difficulty, international review. This combination should be very effective in limiting weapons advances by testing if an upper limit on yield is established as an additional limitation. The number of detonations permitted is the key to evaluating the risk involved in this safeguard. A quota of five or six, i.e., one-tenth the recent U.S. weapon testing rate, would effectively limit progress in nuclear weapon development by testing. However, such a safeguard would permit reasonable progress in Plowshare, with a minimum of radioactivity, including row charge experiments, modest device development like that necessary for Coach, and future scientific experiments. Furthermore, it would not lead to an exchange of sensitive information. This safeguard is similar to one initially suggested by the U.S.S.R. which they called "parity" and involved a "one for one" East-West quota. The quota safeguard, although technically consistent with the weapons test safeguards in the treaty as indicated in recent hearings, would be extremely difficult to explain to Congress.

III. Conclusions. In summary, the international certification safeguard is too weak to be effective or convincing; international observation is limited in effectiveness of control of weapon development by testing and should be difficult to negotiate because the U.S.S.R. would interpret it as a U.S. maneuver to get additional on-site inspections; international review has all of the disadvantages of international observation and, in addition, would make progress difficult under Plowshare; the pre-treaty stockpile safeguard is inherently an interim measure of limited value to Plowshare and fraught with administrative difficulties; the unanimous consent safeguard would give the U.S.S.R. a veto over the U.S. internal Plowshare program and would make progress in Plowshare possible only at the discretion of the U.S.S.R.; the device design disclosure safeguard would be very effective in limiting weapons development by testing under the Plowshare article of the treaty but would permit very little progress in Plowshare and has many administrative difficulties such as obtaining Congressional approval for device design revelation; and last, the quota safeguard, though difficult to explain to Congress and to the public and possibly difficult to negotiate, would permit reasonable progress in Plowshare while limiting the advances which could be made in nuclear weapons by testing under the Plowshare treaty article to a level that is consistent with the risk that is involved in the treaty as a whole. Therefore, it appears that the quota safeguard, perhaps in combination with the yield limitation and international observations, would be the best Plowshare safeguard to include in the treaty if it is desired to make reasonable progress in the Plowshare Program

This approach is similar to the present Plowshare treaty article, provided that the device design revelation safeguard is replaced with the quota and yield limitation safeguard.

Thursday, April 4, 1963 - D.C.

From 9:10 a.m. to 10 a.m. I met with Paul Pearson and Carl W. Borgmann (Ford Foundation). Haworth was also present for part of the meeting. We discussed the proposal for cooperation between ORNL and the University of Tennessee. Haworth and I said we favor the proposal. We agree that the need for fellowship funds for first and second-year graduate students is perhaps not so great as represented, but some money should be available to the University of Tennessee to give them local flexibility. We agree that for the third- and fourth-year graduate students, the AEC fellowship support through the Laboratory is feasible.

We said the portion of the Oak Ridge scientists' time devoted to teaching will have to be reimbursed by the University of Tennessee and this formal arrangement is necessary due to geographical separation. In the future this can change. We have less formal arrangements at places like the Radiation Laboratory at the University of California, the Harvard University Accelerator Project, the Princeton University Accelerator Project, Iowa State, Notre Dame, etc. I mentioned the trend toward cooperation between AEC laboratories and universities, such as at Hanford, Savannah River, Livermore, Los Alamos and Argonne.

At 11:55 a.m. I called Oppenheimer to inform him of the Fermi Award. He seemed very pleased.

I had lunch with Russian Ambassador Anatoly Dobrynin at the Cosmos Club for the purpose of discussing my forthcoming trip to Moscow. I explained that I will be going on the President's plane which leaves at 8 p.m., Saturday, May 18th, and will arrive in Moscow at noon on Sunday, May 19th. He said this will be unprecedented and he will inquire as to its feasibility. In saying this he did not imply there will necessarily be difficulties. I also told him I will be bringing eight to ten people with me, mostly scientists, and he didn't seem to think this would offer any difficulties. I told him while in Russia I will want to concentrate on seeing scientists and laboratories and not on evening dinners and social affairs.

The only thing of a political character that came up during the discussion was his question as to why the U.S. resumed underground testing at such a critical period earlier this year, because it has had an adverse effect on the test ban negotiations. I said it is a result of the feeling we can't refrain from testing indefinitely during an open-ended negotiation; thus, it was thought better to keep testing until an agreement was actually reached. I said there are some who thought this would hasten the agreement because it might lead to more incentive on the part of the other side to conclude an agreement.

He said just the opposite is true--the effect is that the Russian scientists feel more strongly than ever they must test to stay abreast. This subject was discussed in a most friendly way as was the tone of the entire luncheon discussion. He mentioned that his background, as well as that of his wife, is in aeronautical engineering, but since 1943, he has been in the diplomatic service.

Senator Everett Dirksen called me about the uranium hexafluoride plant at Metropolis, Ohio. He said he understands the contract for this plant is under consideration by the Commission now and has already been through our industrial section. He said he has talked with Bob Wilson and Jim Ramey and wants to discuss it with me. He said he understands there is some hassle about government plants as distinguished from private plants. I told him there is a difference of opinion here which involves differences in cost accounting, etc., and if the two are put on an equivalent basis there would not be quite so large a difference in the cost. He said he hopes we will be sympathetic. They have never had a labor disturbance in the Ohio plant and the plant makes a great contribution to the community. I told

the Senator we will look into the matter. I told him we might have problems of a different type, i.e., questions regarding continuing need for more and more weapons, etc., which could lead to things beyond our control. I told him I would feel better if we could come to talk with him about it if such a situation develops. He said he is open to discussion.

Runion called to let me know that the Grace Board approved the Nuclear Fuel Services project today. They are going ahead not foreseeing any major problems.

Scotty Reston (New York Times) called to say that John Finney was in recently to talk with him about the Oppenheimer story and that John had given him our side of the story, i.e., our hope they won't violate our release date. (Finney saw me after lunch today and he mentioned he learned the release on Oppenheimer will be coming out on Saturday.) Reston said he understands our point thoroughly; but, he feels they must go ahead with the pre-release of the story and will do it in an orderly and favorable way. I said that, if there weren't other factors involved, including Finney's long history of cooperation, we will press for holding the story for the Saturday (April 6th) release, but I cannot be unmindful of these considerations. He said Finney thinks no harm will be done. I mentioned I have indicated some aspects of the story to Finney, which I feel he is willing to honor. Also, I said we will make it clear in our handling of the matter with other newspapers that this is not our break and that I was in no way involved. Reston agreed I was not involved.

I called Wiesner and reached him as he debarked from a Washington plane at the Boston Airport. I asked him if he had given the Oppenheimer story to Finney last night. Jerry said Finney came to his office yesterday afternoon toward 6 p.m.; and, while he didn't confront Wiesner with anything specific, he said he had sensed the feeling all over town that something is happening, and wanted to talk about the whole matter; therefore, they reviewed it in a very general way. Weisner said Finney told him he is seeing me today. Also, Jerry talked with Singer and knew about our luncheon. I said Finney saw me after lunch today and mentioned our release will be coming out on Saturday. Weisner said this is the first he had heard that the release is to be made on Saturday. I told him that Finney said he had received this information from a very high source and he is going to print the story tomorrow (Friday). I said this raises the question of whether we rush the press release this afternoon, and I hate to undercut Finney. I mentioned that Reston also called and he regards it as a confidence and feels if we advanced the release time we will be undercutting them. Weisner said he wouldn't worry about it either way and said we should put the release out tomorrow, if convenient, but it won't hurt if we're scooped. He feels that anything we do will be criticized, and is inclined to let matters take their course.

I called John Toll to tell him on a confidential basis that the AEC, on the recommendation of the GAC, is giving Oppenheimer the Fermi Award. He said he already knew--John Finney had told someone else who told him. Toll is delighted about the award and wonders if this means something further can be done on the clearance matter. I said this will have to be taken in due course, and in this connection someone will have to talk to Oppenheimer.

I called Senator Hickenlooper at 4:30 p.m. and told him that we tried to reach him but he was away. I said we would like to brief him on our plans for a possible community in Nevada. I added, it is a complicated matter and a decision that the Commission has come to rather reluctantly. He said he will be delighted to see us any time. I said our staff will get together with him to work out the details.

At 4:35 p.m. I presided over Commission Meeting 1922. The Commissioners approved the memorandum of cooperation between USAEC and USSR State Committee on Atomic

energy for 1963-64, the Commission's agenda for Friday, April 5th, and for the week of April 8th.

I called Senator Jackson at 5:15 p.m. to tell him about the Fermi Award and he said he is all for it but is a little concerned about some reactions. He feels that people should judge the merit of this award on a professional basis. He doesn't feel that a statement will be made by members of the JCAE. However, he will be glad to push a statement by the Committee if I wish. I said I thought this might be a good idea.

He said he had just seen the announcement on the team to be set up for Hanford. This came in from Albuquerque. He asked about Bob Underhill and Tom Chilton and I told him Underhill is the retired Secretary-Treasurer of the Regents of the University of California. Monte Evans is retired from duPont, and Chilton was retired from duPont also and is an eminent chemical engineer who is now teaching at Georgia Tech. He asked if our information people will be getting out a statement on the three industry representatives and I said they are. He asked that a copy be sent to him.

I called several other people to inform them that Oppenheimer will receive the Fermi Award. (Attached is a list of these people and their comments.)

Helen and I attended a dinner at the Mayflower Hotel which the California Bankers Association gave in honor of the Californians in government.

Friday, April 5, 1963 - D.C.

John Finney broke the news in this morning's New York Times that Oppenheimer will receive the Fermi Award. The article gave much inside background, which he apparently acquired from Olson, Graham, Naiden, Ramey and others. This resulted in the AEC's advancing its press release to 8:30 a.m. rather than 3 p.m. as scheduled. This apparently ired Howard Simons of the Washington Post who may write critical articles about the AEC as an aftermath. So far the press reaction hasn't been too bad. (A copy of Finney's article, Howard Simon's article and the AEC press release is attached.)

Salinger called to say that the President just called him regarding the Oppenheimer story. Salinger says he thinks AEC should make the announcement today, and I said we already announced it at 8:30 this morning. Salinger asked that we handle queries as to whether there will be a review of Oppenheimer's clearance by responding as "background" that the Fermi Award, approved on the recommendation of the GAC, represents a recognition for scientific achievement in the field of atomic energy, as did all previous awards, and there is no connection whatever with the matter of clearance. He does not wish us to take the initiative in volunteering this statement. He says that the only role played by the White House was in approving the GAC recommendation; therefore, the White House wishes to remain silent and will refer all inquiries to the AEC. Also, we are to make it clear that there will not be any White House announcement and this is being handled the same as all previous award announcements.

I called John Finney and told him that Howard Simon's story on Oppenheimer was apparently picked up out of New York. He said this is probably true, that the Times comes out about 9:30 p.m., and the Post doesn't go to press until quite late. He said this happens all the time. I told him I read his story and he said he hopes I am not too displeased. I said it went a little further than I thought it would. He said he is sorry, but he wanted to get out some of the information he had. I said it is apparent that he has been working on this a long time. He said he had a lot he didn't use and could not use, and he tried not to point too much to

April 4, 1963

TELEPHONE CALLS:

I called the people listed below to inform them that the General Advisory Committee to the AEC has recommended to the Commission that J. Robert Oppenheimer be awarded the Enrico Fermi Award this year, and that the Commission accepted the recommendation and the President has approved it. We now expect this to break in the newspapers tomorrow, and wanted to let them know about it beforehand. The award is being given on basis of his scientific accomplishments.

- 2:30 p.m. Gen. K. D. Nichols, former General Manager of AEC. He has no quarrel with the award on this basis. Doesn't think we could do much else since the GAC recommends it.
- 3:30 p.m. Senator Anderson thinks this is a fine thing and that he deserves it.
- 4:00 p.m. Congressman Hosmer. Offhand it strikes him as the fair thing to do. Appreciated my tipping him off and he might even support me on it.
- 4:20 p.m. Senator Russell. He was a member of the Committee when the hearing was held on Oppenheimer. He was a controversial man but a great scientist, and he has no objection to the award.
- 4:30 p.m. General Leslie R. Groves, formerly head of MED. he thinks it is a splendid thing and hopes it will not cause him more trouble. Thought the whole case was outrageous, but few people were on his side. Will, indeed, support us.
- 5:20 p.m. Senator Gore: Out of town, but information given to Mr. William Allen, his Assistant, who will see that he is informed.
- 5:30 p.m. Congressman Thomas. he is delighted--a brilliant man who got kicked around.
- 5:35 p.m. Congressman Bates. He asked if I knew him, and said it was too bad these people have dual personalities.
- Congressman Price. No objection - appreciated my calling.
- Congressman Westland. No objection - appreciated my calling
- Congressman Aspinall. Thinks this is fine; considers his mind to be one of the best; has always been sympathetic toward him.
- Congressman Anderson. Had lost track of him; asked if GAC action was statutory.

6:00 p.m. Mr. McCone. Takes no exception - never went very deeply into the issue, but from the standpoint of the Fermi Award, he feels Oppenheimer is qualified for the award and deserves it.

Congressman Holifield. Said it would stir up the anti-Communists, but he thinks something should have been done on this some time ago. Said if he were questioned he would simply say the award is being given on the basis of his scientific contribution.

Senator Curtis. Thanked me for calling.

Mr. Campbell, former Commission. No objection (reached in Florence, Italy).

April 5, 1963

Secretary Zuckert, former Commission, no objection.

A.E.C. PRIZE GOING TO OPPENHEIMER

Fermi Award Signals Move
to Annul Security Ban

N.Y. Times 4/5/63

By JOHN W. FINNEY

Special to The New York Times

WASHINGTON, April 4—Dr. J. Robert Oppenheimer, the nuclear physicist who was declared a security risk by the Atomic Energy Commission in 1954, has been chosen to receive the highest honor the commission confers.

The decision to present Dr. Oppenheimer with the \$50,000 Fermi Award for 1963 is expected to be announced by the White House tomorrow.

Officially, Dr. Oppenheimer will receive the award for his contributions to the development of nuclear energy. These include his work in developing the atomic bomb during World War II and in promoting the military and peaceful uses of the atom after the war.

Within the Administration, however, the award is intended as a symbolic action to "clear the name" of the scientist who was director of the Los Alamos Laboratory during the wartime Manhattan Project. Ten years later he was declared a security risk by the Government.

The decision to give the award to Dr. Oppenheimer comes as a climax to several years of behind the scenes activities during those years persons within both the Eisenhower and Kennedy Administrations and outside groups have sought for a feasible way to reverse the security indictment of the physicist and to restore his public honor.

Particularly within the Kennedy Administration, there was

Continued on Page 26, Column 3

A.E.C. PRIZE GOING TO OPPENHEIMER

Continued From Page 1, Col. 7

a widespread belief that the scientist had been unjustly denigrated and that steps should be taken to correct what was regarded as one of the most glaring injustices of the era of the late Senator Joseph R. McCarthy of Wisconsin.

The search for some acceptable step, however, was complicated by personal and political considerations. On the one side, there was a desire not to subject Dr. Oppenheimer to the humiliation and publicity of another security hearing, such as he went through in the spring of 1954.

On the other side, there was concern within the Administration about possibly adverse political reaction to any step that would have the "effect of clearing the name" of a scientist who had figured so prominently in the allegations of the McCarthy period. In fact, there are reliable indications that political considerations influenced the Kennedy Administration to postpone action beyond last fall's election.

Within the Administration it is realized that the presentation of the Fermi Award does not remove the security risk stigma from Dr. Oppenheimer's record. According to White House officials, however, it is hoped that the award can clear the way eventually for the granting of a security clearance to Dr. Oppenheimer.

Will Be Watched Closely

The Administration, therefore, will be watching closely the political and public reaction to announcement of the award. The hope is that the somewhat bitter and personal political forces created nearly a decade ago by the Oppenheimer case will have healed and that the award will be accepted as a justified honor to a man who played such a key role in the development of the atomic bomb.

The Fermi Award, named for Enrico Fermi, the Italian born scientist who directed the scientific team that achieved the first controlled chain reaction

data" pending a security review.

A three-man panel, headed by Gordon Gray, then president of the University of North Carolina, was set up to review the charges. Dr. Oppenheimer had been accused of associating with Communists before and during World War II, of hiring Communists and ex-Communists at the Los Alamos Laboratory, of aiding and contributing to Communist causes and of actively opposing the hydrogen bomb project after it had been ordered by President Truman.

The Gray panel announced on June 1 that it had found Dr. Oppenheimer to be "a loyal citizen" but had recommended, by a 2-to-1 vote, against reinstating his security clearance as a consultant to the commission.

Approval By A.E.C.

The panel's recommendation was upheld later that month by the commission, which announced on June 29 that it had voted 4 to 1, against granting security clearance to Dr. Oppenheimer.

In the majority were Lewis L. Strauss, the commission chairman, Eugene M. Zuckert, now Secretary of the Air Force, Joseph Campbell, now Comptroller General, and the late Thomas E. Murray.

The lone dissenter was Dr. Henry D. Smyth, now the United States representative to the International Atomic Energy Agency.

The majority opinion, signed by Messrs Strauss, Zuckert and Campbell, held that Dr. Oppenheimer was a security risk on the basis of "fundamental defects in his character" and because "his associations with persons known to him to be Communists have extended far beyond the tolerable limits of prudence and self-restraint."

In a separate opinion, Mr. Murray went beyond the majority and questioned Dr. Oppenheimer's loyalty.

In his dissent, Dr. Smith maintained that Dr. Oppenheimer's "loyalty and trustworthiness emerge clearly" from his record of Government service and that there was no reason to believe that he "has ever divulged any secret information."

Moves Begun in 1958

The move to reverse the security decision against Dr. Oppenheimer or to take some step to "clear his name" began within the Government when

ed during World War II and that it was a punitive, personal abuse of the judicial system."

Suggests Way Out

When Mr. Olson was promoted to the commission in May, 1960, he began trying to work out an arrangement to restore Dr. Oppenheimer's clearance. He proposed that the commission's research division hire Dr. Oppenheimer as a consultant and then have the commission grant him a security clearance.

Nothing came of these behind-the-scenes efforts during the Eisenhower Administration.

The Administration's position was reflected in a January, 1953, when President Eisenhower told a news conference that he regarded the Oppenheimer case as "settled" and in the statement by Mr. Strauss that the case would be reopened only if "substantial new evidence were presented."

With the coming of the Kennedy Administration there was a new flurry of activity, within the commission, the White House and from outside groups. As a Senator and as a Presidential candidate, Mr. Kennedy had not taken a position on the Oppenheimer case, but the prevailing belief was that the new Administration would look more kindly on "clearing Oppenheimer's name" than had its predecessor.

A Change of Climate

This belief was reinforced by the appointment of Dr. Glenn T. Seaborg, a chemist who had worked with Dr. Oppenheimer on the Manhattan Project, as commission chairman early in 1961.

An important impetus to commission action came from the Federation of American Scientists, a political action committee created by a group of scientists in 1946. In October, 1961, the federation wrote a letter to the commission urging a complete review of the Oppenheimer case.

For reasons that are not clear, knowledge of the federation letter was originally restricted to the two scientist members of the commission—Dr. Seaborg and Dr. Leland J. Haworth—and kept from the two lawyer members—Mr. Olson and John S. Graham.

It was only in the following March that the two lawyer commissioners were told by Neil Naiden, general counsel of the commission about the federation

the case. From the back Mr. Naiden was reported to have objected that the commission could not take such a position, in effect it would be forcing the position upon the Eisenhower Administration.

Appointment Suggested

Mr. Olson recommended pointing Dr. Oppenheimer a consultant on a classified project. This, he pointed out, would require a new security investigation. Then a report would be laid before the commission; the commission would grant clearance and "that's all that would be to it."

Nothing positive resulted from this commission discussion. The question seemingly was put off the common agreement that the question went beyond the commission's scope.

Behind the scenes, however, the scientist members of the commission continued to discuss action to vindicate Dr. Oppenheimer.

There were also continuing efforts by outside groups.

Joseph Volpe, for example, Washington lawyer and general counsel of the commission from 1948 to 1951, urged Administration officials and members of the Joint Congressional Committee on Atomic Energy to act. Mr. Volpe had worked with Dr. Oppenheimer on the Manhattan Project.

Some influential members of the Congressional Committee made clear that they were opposed to reopening the Oppenheimer case but urged that action be deferred until after the election.

Invited to White House

As a "trial balloon" to gauge public reaction, the Administration invited Dr. Oppenheimer to a White House dinner on April 29, 1962, that honored forty nine Nobel Prize winners. The invitation was regarded by some White House officials as the first step in the "rehabilitation" of Dr. Oppenheimer.

During the dinner, Dr. Seaborg was understood to have approached Dr. Oppenheimer and asked whether he would like another hearing. Dr. Oppenheimer was reported to have replied, in effect, "not on your life."

The Seaborg question and Dr. Oppenheimer's response pointed up the basic problem confronting Administration officials: that of finding a way to "clear

Energy Act of 1954. The law provides that the commission shall recommend to the President, with the approval of the General Advisory Committee, any especially meritorious contribution to the development, use or control of atomic

Awarded Unanimously

At a meeting late last month

the General Advisory Committee voted unanimously to give this year's award, which since 1956 has carried a \$50,000 reward, to Dr. Oppenheimer.

The committee, which Dr. Oppenheimer headed after World War II is the top scientific advisory group to the commission. Its members now are: Dr. Manson Benedict, the Massachusetts Institute of Technology, chairman; Dr. Kenneth S. Pitzer, president of Rice University; Dr. Philip H. Abelson, the Carnegie Institution of Washington; Dr. Norman F. Ramsay, Harvard University; Dr. J. C. Warner, president of the Carnegie Institute of Technology; Dr. Eugene P. Wigner, Princeton University; Dr. John H. Williams, the University of Minnesota; Dr. Robert A. Charpie, the Union Carbide Corporation; Dr. L. R. Hafstad, General Motors Research Laboratories, and William Webster, president of Yankee Atomic Electric Company.

Sent to The President

At a meeting on March 23, the five-man A.E.C. unanimously approved the committee's recommendation and submitted the Oppenheimer nomination to the White House. The nomination was shortly approved by President Kennedy.

Dr. Oppenheimer, according to White House officials, was informed at Princeton, N.J., today of the honor. Since 1947, he has been director of the Institute for Advanced Study in Princeton.

If tradition is followed, the formal presentation will come on Dec. 2, the twenty-first anniversary of the first chain reaction in an atomic pile built in Stagg Field in Chicago, early in World War II.

According to associates, Dr. Oppenheimer has made no overt move to reopen his security case. But he was reported to have made it clear that he would welcome action by the Administration to clear his name.

A Touch of Irony

There is a personal irony in Dr. Oppenheimer's receiving the award this year, a year after it was given to Dr. Edward Teller.

The two scientists were the principal protagonists in the controversy over whether to build the hydrogen bomb — a controversy that figured largely in the security charges against Dr. Oppenheimer. And during the lengthy security hearings Dr. Teller was on of the principal hostile witnesses against Dr. Oppenheimer, his former director at the Los Alamos Laboratory.

As one way to vindicate Dr.

When his successor, John A. McCone, now director of the Central Intelligence Agency, was named commission chairman in June, 1958, Senator Clinton P. Anderson, then chairman of the Joint Congressional Committee on Atomic Energy, asked him to review

the Oppenheimer case. As a result, Loren K. Olson then general counsel of the commission, reviewed the case.

As he recalled recently, Mr. Olson concluded that it was "a messy record from a legal standpoint, that the charges kept shifting at each level of the proceedings, that the evidence was stale and consisted of information that was 12 years old and was known when a security clearance was granted."

Provoked Discussion

During a commission meeting in March, Mr. Olson asked whether a letter from the federation was "floating around here." This brought the Oppenheimer case up for discussion.

Olson told Dr. Seaborg that he could count on his vote for action favorable to Dr. Oppenheimer on becoming commissioner. In 1957 he was to read the 982-page transcript of the Oppenheimer hearings, was also reported to have made clear earlier his desire to reopen the case.

One commissioner, not identified, was reported to have suggested that the commission agree that in the absence of new evidence it could not reopen

Dr. Oppenheimer without reopening the hearings and subjecting him to another round of interrogation.

Late in the spring of 1958 there was general agreement within the Administration that it would be a mistake to let the case go to any other commission.

action that might make the Oppenheimer case an issue in the approaching Congressional election.

After the election there was renewed activity within the commission and the office of Dr. Jerome B. Wiesner, the President's science adviser. In recent weeks officials have been indicating privately that action could be expected shortly.

The climax will come tomorrow with the White House announcement.

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As one way to vindicate Dr. Oppenheimer, the commission informally proposed to the General Advisory Committee last year that the award for 1962 be shared by Dr. Teller and Dr. Oppenheimer. The suggestion was turned down by the committee.

Ordered By Eisenhower

The Oppenheimer case burst into the open on April 13, 1954, when the Atomic Energy Com-

4-5-53

Oppenheimer Selected

Fermi Award

By Howard Simons
Staff Reporter

J. Robert Oppenheimer, controversial atomic scientist, has been selected to receive the \$50,000 Fermi Award—the Atomic Energy Commission's highest honor, it was learned last night.

Oppenheimer, who lost the right to do secret work for the Government in a declassified security case in 1951, was picked unanimously for the award by the AEC's 9-member general advisory committee, a group of eminent American scientists.

The award was endorsed, again unanimously, by the present Atomic Energy Commission and was approved by President Kennedy.

The Fermi award, which is given for "especially meritorious contribution to the development, use or control of atomic energy" goes to Oppenheimer for his contributions to theoretical nuclear physics and for his leadership in developing both the atomic bomb and peaceful applications of atomic energy.

Oppenheimer's selection will be viewed by many as representing a desire by the present administration to redress what some consider a previous wrong.

It also has led to speculation that Oppenheimer might be requested to do secret work for the Government, which would automatically make him a candidate for new security clearance. The award itself does not reinstate Oppenheimer's security clearance.

The wartime scientific director of the Nation's Manhattan Project for building the first atomic bomb lost his clearance after a lengthy and contentious hearing to determine whether he was a security risk.

Essentially Oppenheimer's judgment as regards security was called into question because of his association with French scientists: Etienne

Chevalier, a Communist. But questions also were raised about his opposition to the development of the hydrogen bomb and about his loyalty.

The general debate resulting from these questions split the scientific community and the wounds still have not been totally healed.

The AEC denied security clearance to Oppenheimer by a 4 to 1 vote in 1951. Three of the four AEC commissioners — Chairman Lewis L. Strauss, Eugene M. Zuckert and Joseph Campbell — based their decision on the conclusion that Oppenheimer had shown "fundamental defects" of character, and "willful disregard" of security obligations. The fourth majority member was Commissioner Thomas E. Murray.

Commissioner Henry D. Smyth voted for Oppenheimer, declaring that "he is completely loyal."

The Oppenheimer decision landed in the AEC's lap in 1954 after President Eisenhower had suspended Oppenheimer's clearance pending review of charges against the scientist. A special three-member board concluded unanimously in May, 1954, that Oppenheimer was a loyal citizen but it voted 2 to 1 against restoring his security clearance. The AEC's decision followed in June.

Informed sources yesterday said that Strauss, along with other former AEC chairmen and members of the Joint Congressional Committee on Atomic Energy, had been informed of the decision to give "Oppie," as he is known in the scientific community, the award.

The first hint that the Administration might approve honoring Oppenheimer came last year when he was invited to a dinner at the White House for Nobel Prize winners.

Oppenheimer is not a Nobel Prize winner.

Since 1947 he has been director of the Institute for Advanced Study at Princeton University.

Previous winners of the award, named for the late Enrico Fermi, pioneer atomic scientist, include John von Neuman, E. O. Lawrence, Eugene Wigner, Glenn T. Seaborg (present chairman of the AEC), Hans Bethe and Edward Teller.

BALTIMORE SUN APRIL 5, 1953

Dr. Oppenheimer Will Get Fermi Award From AEC

Washington, April 4 (AP)—Dr. J. Robert Oppenheimer, who had a key position in the development of the atomic bomb, will receive the \$50,000 Enrico Fermi Award from the Atomic Energy Commission.

The AEC confirmed tonight reports that Oppenheimer would get the award, which was authorized by an act of Congress of 1954.

It is named for the Italian physicist who directed the group of scientists who obtained the first controlled nuclear chain reaction.

Oppenheimer now is director of the Institute for Advanced Studies at Princeton, N.J.

In 1954 Oppenheimer was a consultant to the AEC. By a 4-to-1 vote that year, the commission barred him from access to atomic secrets. The commission ruled he was a security risk but did not question his loyalty.

AP-4-5

AEC

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

No. F-57
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FOR IMMEDIATE RELEASE
(Friday, April 5, 1963)

DR. J. ROBERT OPPENHEIMER NAMED TO RECEIVE
ENRICO FERMI AWARD FOR 1963

The Atomic Energy Commission announced today that Dr. J. Robert Oppenheimer, renowned theoretical physicist and Director of the Institute for Advanced Study at Princeton University, has been named to receive the Commission's Enrico Fermi Award for 1963.

Dr. Oppenheimer, the seventh scientist to receive the Fermi Award, will receive a gold medal, a citation, and \$50,000. The award will be presented to Dr. Oppenheimer in recognition of his outstanding contributions to theoretical physics and his scientific and administrative leadership not only in the development of the atomic bomb, but also in establishing the groundwork for the many peaceful applications of atomic energy.

The award is named in honor of the late Dr. Enrico Fermi, leader of the group of scientists who achieved the first self-sustained, controlled nuclear chain reaction on December 2, 1942. The selection of Dr. Oppenheimer for the award was based on the unanimous recommendation of the Commission's statutory General Advisory Committee. The award will be presented to Dr. Oppenheimer at a ceremony in December, 1963.

Dr. Oppenheimer has made far-ranging and profound contributions to the advancement of theoretical physics. He has played a unique role in the development of physics in the United States, as a teacher, as an originator of several fundamental concepts, and as the administrator under whose leadership the atomic bomb was successfully developed at Los Alamos Scientific Laboratory during World War II.

(more)

After studying in several European Universities during the 1920's, in 1929 Dr. Oppenheimer became assistant professor of physics at the California Institute of Technology and the University of California at Berkeley. During his 12 years of service on the two faculties, he built a school of theoretical physics which was unequalled in the United States and which attracted students from throughout the world. He also made several important contributions to physical theory.

His theoretical work has included studies on the separation of different forms of energy in molecules, the interaction of field and matter, positive and negative energy states, the statistics of the many-particle system, field theory, the theory of cosmic ray showers, and elementary particle phenomena. After his wartime service as Director of Los Alamos Scientific Laboratory, his interests remained strongly oriented toward elementary particle and cosmic ray phenomena, and he continued to contribute to basic physical theory.

Dr. Oppenheimer became involved in the U.S. effort to produce nuclear weapons in the autumn of 1941, almost at the beginning of the program. In the spring of 1942, he was requested by Dr. Arthur Compton to take charge of the work on the bomb itself. He suggested that a central laboratory for this work be established at Los Alamos, N.M., which was then a boys' school near the Oppenheimer summer ranch home. He became Director of the Los Alamos Scientific Laboratory early in 1943, and directed the work which led to the explosion of the first atomic device on July 16, 1945 in Alamogordo, N.M.

Dr. Oppenheimer has been Director of the Institute for Advanced Study at Princeton University since 1947. He was Chairman of the Commission's General Advisory Committee from 1947 through 1952.

Dr. Fermi was the first person to receive an award under the Atomic Energy Act of 1954, and the Commission decided that subsequent awards should bear his name. The six previous Fermi Award winners are as follows:

(more)

- 1956 -- The late Dr. John von Neumann, noted scientist and mathematician and member of the Atomic Energy Commission, for his contributions to the theory, design and construction of fast computers and to the role of computers in the control and use of atomic energy.
- 1957 -- The late Dr. Ernest O. Lawrence, Director of the Radiation Laboratory, University of California, which bears his name, "for his invention and development of the cyclotron and for his many other contributions in nuclear physics and atomic energy."
- 1958 -- Dr. Eugene Wigner, Professor of Mathematical Physics, Princeton University, for "contributions to nuclear and theoretical physics, to nuclear reactor development and to practical applications of atomic energy."
- 1959 -- Dr. Glenn T. Seaborg, Chairman of the U. S. Atomic Energy Commission, who was Chancellor of the University of California when he received the award "for discoveries of plutonium and several additional elements and for leadership in the development of nuclear chemistry and atomic energy."
- 1960 -- No award was made.
- 1961 -- Dr. Hans A. Bethe, Professor of Physics at Cornell University "for contributions to nuclear and theoretical physics, to peaceful uses of atomic energy and to the security of the United States."
- 1962 -- Dr. Edward Teller, Associate Director of the E. O. Lawrence Radiation Laboratory at Berkeley, California, "for contributions to chemical and nuclear physics, for his leadership in thermonuclear research, and for efforts to strengthen national security."

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The Enrico Fermi Award, authorized in Section 157 b. (3) of the Atomic Energy Act of 1954, may not be granted more often than once annually and in an amount not exceeding \$50,000 to any one individual. If it is made to more than one person, the total amount still is \$50,000. The award is international in scope. Section 157 b. (3) reads in part:

"The Commission may also, upon recommendation of the General Advisory Committee, and with the approval of the President, grant an award for any especially meritorious contribution to the development, use, or control of atomic energy."

Attachment:
Biographical sketch of
Dr. Oppenheimer

4/5/63

J. Robert Oppenheimer

Dr. J. Robert Oppenheimer was born in New York City on April 22, 1904, the son of a wealthy textile importer. His interest in science was first evident at the age of five when he began collecting rocks. He entered Harvard at the age of 18 and it was there that he became interested in theoretical physics. He graduated from Harvard, with honors, in three years and then went on to Cambridge and Gottingen, where he received his doctor's degree in the Spring of 1927.

Dr. Oppenheimer returned to the United States in 1928 as a research fellow at Harvard and at the California Institute of Technology. In 1929 he again went abroad as a fellow of the International Education Board at the University of Leiden and at the Institute of Technology in Zurich. In 1929 he returned to the United States where he accepted concurrent appointments as assistant professor of physics at the California Institute of Technology and the University of California at Berkeley.

During his twelve years of service on the two faculties, Professor Oppenheimer added greatly to the advancement of science both as an inspired teacher of advanced theoretical physicists and as originator of several fundamental contributions to theoretical physics. In this capacity, he played a unique role in bringing American theoretical physics to maturity.

The school of theoretical physics developed by Professor Oppenheimer at the University of California and Cal Tech was unequalled in America and served as a magnet to draw talent in this field from all over the world. Many of his students have become leaders in theoretical physics throughout the world and many have made substantial contributions to the wartime and post-war atomic energy efforts of the United States. He was sought out by many visiting physicists from Europe as one from whom they also could learn in a mutual exchange of ideas at the rapidly expanding frontier of knowledge.

Professor Oppenheimer's fundamental contributions to the advancement of theoretical physics were far-ranging and profound. While working on his doctoral dissertation

under Professor Max Born in Göttingen, Oppenheimer produced in 1927 a definitive work on the separation of different forms of energy in molecules.

This was followed, on his return to the United States, by a paper in the Physical Review (1930) on the theory of the interaction of field and matter. This work, in which Oppenheimer develops a method for the systematic integration of the relativistic wave equations for the coupling of electrons and protons with each other and with the electromagnetic field, demonstrated the impossibility of eliminating the interaction of the electric charge with its own field and the inapplicability of a theory of Dirac and Heisenberg to nuclear structure.

During the same year, Oppenheimer published an examination of a theory proposed by Dirac which had postulated a world consisting of a sea of positive and negative energy states. Oppenheimer's critique of Dirac's early formulation of the theory led Dirac to revise his theory. Several years later, together with Furry, he developed the Dirac theory further, gave a physical interpretation and subjected it to a number of independent tests which helped to place the theory on firm ground. This theory has now become one of the foundation blocks of contemporary physics.

The following year he published a paper with Ehrenfest on the statistics of the many-particle system (eg nuclei) which constituted strong evidence against the existence of electrons within the nucleus. After the discovery of neutrons by Chadwick the following year, protons and neutrons became the building blocks of the nucleus. This work also influenced Pauli's thinking and was in part responsible for his postulation of the existence of the neutrino.

In 1935 Oppenheimer and Phillips published a paper propounding a process whereby a neutron is captured from the deuteron as it passes the target nucleus but beyond the range of the nuclear force. This process, which has become known as the Oppenheimer-Phillips process, was experimentally confirmed by Lawrence, McMillan and Thornton the same year.

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From 1937 until he became involved in the Manhattan Project, Professor Oppenheimer's interests moved toward field theory, the theory of cosmic ray showers and elementary particle phenomena. Together with J. F. Carlson he published an authoritative theoretical treatment on multiplicative showers. This treatment of multiplicative and diffusion phenomena contributed to an understanding of such phenomena which have been so important in the development of military and peaceful applications of atomic energy.

After the war Oppenheimer's scientific interests remained strongly oriented toward elementary particle and cosmic ray phenomena. In 1946 he published a paper, together with Bethe, pointing out certain theoretical weaknesses in Heitler's theory of radiation damping. In 1947 in an invited paper before the American Physical Society he proposed an explanation of cosmic ray showers which satisfactorily explains both the hard (nucleonic) and soft (Auger) components of such showers. In 1948, jointly with H. W. Lewis and S. A. Wouthuysen, Oppenheimer took the next major step after Heisenberg to develop a theory for multiple meson production. Contained in this paper was a postulation of nucleonic structure, a phenomenon confirmed in later years by Hofstadter, et al. The concepts contained in this paper, i.e., increasing multiplicity of meson yield with energy, were later extended to neutron emission.

Due to his experience and knowledge, Dr. Oppenheimer became involved in our efforts to produce atomic weapons almost at the beginning of the program. In the autumn of 1941 he participated in the meeting of the special committee chaired by Arthur Compton at the National Academy of Sciences to review the prospect and feasibility of the different uses of atomic energy for military purposes.

After this initial encounter with the prospect of atomic weapons, he began to make preliminary calculations about the construction and performance of atomic bombs and also began to consult with the staff of the Radiation Laboratory at Berkeley on the electromagnetic separation of uranium isotopes. Dr. Oppenheimer was also in attendance

at the conference which established the metallurgical laboratory for the production of plutonium.

In the Spring of 1942, Dr. Oppenheimer was requested by Dr. Compton to take charge of the work on the bomb itself, which was being done at a number of experimental laboratories in diverse parts of the country.

After a review of this experimental work, Dr. Oppenheimer and others concluded that in order to proceed rapidly with the development and production of atomic weapons, it would be necessary to pull all the experimental and theoretical work together under a central laboratory where information and ideas could be translated into action with a minimum of delay. He discussed this idea with General Groves, who had been assigned command of the Manhattan Engineer District, and showed General Groves as a possible site, Los Alamos, a boys ranch near the Oppenheimer summer ranch home. General Groves took immediate steps to acquire the site, and early in 1943 General Groves and Dr. Conant appointed Dr. Oppenheimer as Director of the Laboratory.

Dr. Oppenheimer's major initial problem as director of the laboratory was the recruitment of qualified scientific personnel who were understandably reluctant to come to work at a remote site on a project about which they could be told very little. In the hurried days of late 1942 and early 1943 he was also faced with the physical problems of getting the laboratory facilities constructed in the face of competition from laboratories and arms plants already geared to war production, particularly in obtaining of priorities for scarce materials. The fact that Los Alamos was some distance from major rail and transportation facilities further complicated this problem.

However, due to Dr. Oppenheimer's knowledge of the location and capabilities of competent scientific personnel throughout the country he was able to recruit the necessary talent and began the formidable task of putting the laboratory together. Through his scientific and administrative leadership this difficult task was accomplished in a minimum amount of time considering the problems involved, and the actual theoretical and experimental work on the bomb

(more)

itself was started under his guidance.

Dr. Oppenheimer's success in the direction and coordination of this effort, which involved the forging together of many diverse experiments and the interbreeding of ideas from a dedicated but heterogeneous staff of scientists in a story which has been rather thoroughly related now. The proof of this success was well noted with the explosion of the first atomic device on July 16, 1945 at Alamogordo.

Dr. Oppenheimer resigned as director of the Los Alamos Scientific Laboratory in October 1945, but was instrumental in the preparation of the legislation for the Atomic Energy Act of 1946 and in the development of the Baruch Plan for international control of atomic energy.

In 1947, Dr. Oppenheimer went to Princeton as Director of the Institute for Advanced Study. During the period of 1947 through 1952 he also served as Chairman of the General Advisory Committee to the Atomic Energy Commission.

He is at present the director of the Institute for Advanced Study at Princeton and is considered one of the top ten theoretical physicists in the country today. Dr. Oppenheimer is a member of the National Academy of Sciences, a Fellow of the American Academy of Arts and Sciences, the American Physical Society, and the Royal Danish Academy. He served as a member of the Board of Overseers of Harvard College from 1949 to 1955.

Dr. Oppenheimer married Katherine Harrison in November 1940 and they have two children, Peter and Katherine. The Oppenheims reside at Olden Manor in Princeton, New Jersey.

APPENDIX

Dr. Oppenheimer's return to the United States was followed by the publication of a succession of important papers, among which were:

1. Divergence of Field Theory: "Note on the Theory of the Interaction of Field and Matter" PR 35, 461 (1930)

Develops a method for the systematic integration of the relativistic wave equations for the coupling of electrons and protons with each other and with the electromagnetic field. Demonstrates impossibility of eliminating the interaction of a charge with its own field and inapplicability of the theory of Heisenberg and Dirac (Zeits, f. Physik, 56, 1 (1929) to nuclear structure.

2. Existence of Anti-Proton: "On the Theory of Electrons and Protons" (PR 35, 562 (1930))

In this "Letter to the Editor" Oppenheimer examines the theory proposed by Dirac which postulates a world of positive and negative energy states. According to the present-day version of Dirac's theory, in such a world, the familiar stable particle of physics, e.g., the electron and proton, occupy positive energy states. The negative energy states are presumed to be always fully occupied. A hole in the sea of negative energy states, if there were one, would manifest itself as a new kind of particle unknown, at the time the theory was proposed (1931) to experimental physics and having the same mass and opposite charge to an ordinary electron. Such a particle was called an "anti-electron." This particle was discovered the following year by C. D. Anderson and is now known as the positron. Oppenheimer pointed out a number of difficulties contained in the earlier version of the Dirac theory - in particular, Dirac's earlier formulation identified protons with holes in negative energy states. This gave rise to an infinite divergence in the electric field unless there is everywhere an infinite density of positive electricity. It also gave rise to discrepancies between calculated and observed scattering probabilities. To get around this, Oppenheimer suggested that all negative energy states are filled.

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This work influenced Dirac's thinking and led him to postulate the existence of the anti-proton the following year. Several years later this particle was observed to occur in nature under high energy particle bombardment.

3. Statistics of Many-Particle System: "Note on the Statistics of Nuclei" PR 37, 333 (1931)

In the early '30's when wave mechanics was being introduced in the treatment of nuclear problems our understanding of the spins and statistics of nuclei were gradually becoming clear. However, the fundamental constituents of nuclei were still protons and electrons. Therefore, according to the Ehrenfest and Oppenheimer theorem (PR 37, 333 (1931)) the N^{14} nucleus was supposed to obey Fermi-Dirac statistics. However, the determination of the statistics of N^{14} revealed that this nucleus follows Bose-Einstein statistics, contrary to expectation, and therefore constituted strong evidence against the proton-electron hypothesis. The consideration of nuclear spins led to the same conclusion and it was therefore necessary to exclude electrons from the nucleus. After the discovery of the neutron by Chadwick in 1932, the alternative nuclear building blocks became of course, protons and neutrons--a concept to which we now hold.

This work also influenced Pauli's thinking and was in part responsible for his postulation in 1931 of the existence of the neutrino.

4. Positron Theory: "On the Theory of the Electron and Positive" (PR 45, 245 (1934))

Oppenheimer and Furry develop the Dirac suggestions postulating electrons and positrons from positive and negative energy states of matter. The theory is given physical interpretation and subjected to a number of independent tests which help to establish the validity of the suggestion. This concept of Dirac has now emerged as one of the foundation blocks of contemporary physics.

(more)

5. Oppenheimer - Phillips Process: "Note on the Transmutation Function for Deuterons" (PR 48, 500, (1935))

Because of the finite size and ready polarizability of the deuteron, Oppenheimer and Phillips show that neutron capture from the deuteron takes place as the deuteron passes the target nucleus. This process accounted for the breakdown of the Coulomb potential at large distances ($\sim 1.5 \times 10^{-12}$ cm for copper) and accounted for an appreciable probability for neutron capture even when the deuteron passed the target nucleus at distances appreciably beyond the range of nuclear forces. The process was experimentally confirmed by E. O. Lawrence, E. McMillan and R. L. Thornton (PR 48, 493 (1935)) and constitutes a significant contribution to our understanding of nuclear processes.

6. Shower Theory: "On Multiplicative Showers" (PR 51, 220 (1937)) and many later papers

This work of J. F. Carlson and J. R. Oppenheimer constitutes an early authoritative theoretical treatment of the phenomenon of pair production and radiation in the domain of cosmic ray energies and constitutes one of the forerunners of the field now referred to as high energy and cosmic ray physics. The article provides a theoretical basis for "shower" or "burst" buildup by multiplicative processes stemming from very high energy primary particles. The theoretical treatment of diffusion phenomena, carried through the analytic solution of the diffusion equations, contributed to an understanding of multiplicative and diffusion processes which has been so important throughout the development of military and peaceful applications of atomic energy.

7. Radiative Corrections: "Reaction of Radiation on Electron Scattering and Heitler's Theory of Radiation Damping" (PR 70, 451 (1946))

H. A. Bethe and J. R. Oppenheimer demonstrate in this article certain inherent weaknesses in Heitler's theory of radiation damping. These weaknesses had to do with the breakdown of quantum electrodynamics at very long and very short wavelengths and they show the need for introducing corrective terms to avoid the so-called "infra-red and ultraviolet catastrophes." They postulated that a new kind of length would be

involved in a correct solution, above which extant quantum theory would be valid and below which new phenomena would have to be taken into account. Current concern about the breakdown of quantum electrodynamics at very high energies constitutes one of the many challenging and interesting subjects of study in present-day high energy physics.

8. π^0 as Origin of Auger Showers: "Creation and Destruction of Mesons" (PR 71, 462 (1947))

Auger showers, which we now believe to be the latest stage in the development of the most energetic penetrating showers produced by the primary cosmic radiation, contain both hard (penetrating narrow cone) and soft (low penetration, wide cone) components. During the late '40's such cosmic ray showers presented a real problem of interpretation since the processes responsible for the hard component could not also explain the soft. According to the explanation of Oppenheimer, the soft component of an Auger shower is the electron-photon cascade of the decay gamma rays arising from the π^0 mesons produced in the initial nuclear collision at the top of the atmosphere. The penetrating component is the result of a nucleonic cascade of the charged π -mesons and nucleons produced in the same event.

9. Multiple Production of Mesons: "The Multiple Production of Mesons" (PR 73, 127 (1948))

W. Heisenberg was the first to argue (1939) that the production of many mesons in a single nucleon-nucleon collision should play an important role at relativistic nucleon energies. The second major attempt to develop a theory of multiple meson production was made by H. W. Lewis, J. R. Oppenheimer and S. A. Wouthuysen. In a paper which postulated nucleonic structure, a phenomenon confirmed in later years by the experiments of Hofstadter, et al, Lewis, Oppenheimer and Wouthuysen discuss the impacts of nucleons at very high energies -- impacts which lead to multiple meson emission of increasing multiplicity with energy. It was the same concept extended to neutron emission of increasing multiplicity with energy, that led to the concept of the MTA Project. In the latter case, the process proved to be physically sound, but economically unattractive.

my role in this. I said he did O.K. on that part of it, although there are a couple of places where he went a little beyond, but I think I understand his position.

I met with John W. Durham, Linda Marilyn Lyn and Kenneth M. Matsumura, this year's "Appreciation of Excellence in Youth" winners from Berkeley, California.

I met with Dr. H. G. Raggatt (Deputy Chairman, Australian AEC) to discuss Australian applications of Plowshare.

On my way to the White House Mess, where I had lunch with Jim Ramey and Carl Kaysen, I stopped at the Metropolitan Club to meet Monsignor Luc Pierre Gillon (Chancellor, Lovanium University, Leopoldville).

Lee Haworth made an excellent windup appearance at the JCAE 202 hearing today. Ramey read an unexpected statement at the end.

I met with Owen Chamberlain who is considering working for the AEC for one or two years.

The Commission met with representatives of the American and Foreign Power Company and Ebasco Services, Inc.

I sent a letter to Petrosyants enclosing the revised U.S.-USSR agreement.



Visit of "Appreciation of Excellence in Youth" students from Berkeley High School, April 5, 1963

L to R: John W. Durham, Kenneth N. Matsumura, Linda Marilyn Lyn,
Seaborg

Saturday, April 6, 1963 - D.C. - Augusta, Georgia

I worked in the office until 2 p.m.

I called Wiesner at 12:50 p.m. and told him I had talked to Howard Simons and explained to him about the Finney scoop on the Fermi Award. I told him that Simons is quite satisfied and, therefore, there is nothing for Wiesner to do. I further said I think Oppenheimer talked to Volpe and my conversation got garbled in the exchange. I said Finney's article today is most unfortunate, in that it hammers away on Congressional reaction, the effect on election, etc. I mentioned there is one news article this morning which is critical. It is an article by Robert Morris, President of Defenders of America's Liberties which tries to show that there is a decline in resistance to the Soviet Union, etc. Wiesner showed little concern.

Accompanied by Arnie Fritsch, I departed for the Savannah River Plant, leaving Dulles on Delta flight 919 at 3:15 p.m. with a change to Delta flight 442 at Augusta, arriving at 6:55 p.m. We were met by Bob Blair (Manager, Savannah River Operations Office), Lom Squires and Bill Jenkins.

I spent the evening with Squires, Jenkins and Fritsch and stayed overnight at the Continental Airport motel.

Sunday, April 7, 1963

I attended the Masters Golf Tournament with Squires, Jenkins and Fritsch. Nicklaus won with a 286.

I attended an informal buffet dinner at the Blairs in Aiken. Others attending included Squires, Jenkins, Fritsch, Mr. and Mrs. H. L. Kilburn (Deputy Area Manager), Dr. and Mrs. William Overbeck and Mr. and Mrs. Wise.

Monday, April 8, 1963

I toured the Savannah River Plant--one reactor area (100K), the separations area (200-H), Tritium Facility, had lunch in the Hares cafeteria, and then toured the heavy water components test reactor.

Others in the group included Senator Strom Thurmond, Commissioner John Palfrey, Nat Stetson and Arnie Fritsch. I saw Squires, Jenkins, Overbeck, F. H. Endorf, G. Dessauer, W. P. Bebbington, J. W. Morris, A. A. Johnson, Sam Lenher (Vice President, DuPont), M. H. Wahl, Hood Worthington, J. D. Ellett (SRP Manager), J. A. Monier, Jr., and others, plus former Berkeley students, Don Orth, Bob Folger, Dave Karraker, Bill McDonell, as well as Blair and Kilburn. I also met the key members of Blair's staff.

I held a press conference with Bill Talbot (The Columbia State), Mrs. Kay Lawrence (Augusta Chronicle), D. Lew (SRP News), Mrs. Annie King (Editor, Aiken Standard and Review), Bill Bailes (Augusta Herald), Larry Bennett and Henry Tyler (WJBF-TV, Augusta), Paul Reidy and Al Day (WRDW-TV, Augusta) and a representative of WIS-TV, Columbia.

I flew home on Eastern flight 666, leaving Augusta at 4:25 p.m., and arriving at Dulles Airport at 6:55 p.m. Palfrey, Thurmond and Fritsch were on the same flight.

Tuesday, April 9, 1963 - D. C.

At 10 a.m. I testified at the JCAE Authorization Hearings.

I had lunch at the Roger Smith Hotel with Chalmers Roberts, Howard Simons and Howard Brown. We discussed the prospects for a test ban, NATO problems, etc.

Helen and I attended an early afternoon White House Rose Garden ceremony in which U.S. citizenship was conferred on Winston Churchill through his son Randolph.

Secretary Udall asked me to recommend a young scientist to play a key role in the Office of Saline Water on the desalination reactor project. He also said that in about a year he would like to employ Dr. Oppenheimer as a scientific consultant to work in general areas touching on nuclear matters, such as water desalination, etc. In fact, he indicated that his position might be that of Science Advisor.

From 3:30 p.m. to 5:30 p.m. I attended a meeting in the Cabinet Room of the White House to discuss area redevelopment problems of the Appalachian area. Present, and speaking were President Kennedy, Under Secretary of Commerce Franklin D. Roosevelt, Jr., Edward A. McDermott (Director OEP), Luther Hodges (Secretary of Commerce), Steward Udall (Secretary of Interior), Anthony Celebrezze (Secretary of HEW), Orville Freeman (Secretary of Agriculture), Walter W. Heller (Chairman, Council of Economic Advisers), Robert A. Weaver (Administrator, Housing & Home Finance Agency), James E. Webb (Administrator, NASA), and Lee C. White (Assistant Special Counsel to the President). Each of us mentioned ways in which our respective agencies might help in various area redevelopment problems, particularly with reference to the Appalachian area: the States (or part of states) of Kentucky, Maryland, Virginia, West Virginia, Tennessee, Georgia, North Carolina and Pennsylvania. Others present at the meeting included Governor John Tawes of Maryland, Governor Bert Coombs of Kentucky, Governor Albertis S. Harrison of Virginia, Governor Frank Clemens of Tennessee, Governor William Barron of West Virginia, J. K. Tabor (representing Governor William Scranton of Pennsylvania) and a representative of Governor Terry Sanford, North Carolina.

In my talk I mentioned the possibility of AEC's aiding in the development of new types of business growing out of the nuclear field. I mentioned the visit I had recently with representatives of Governor Bert Coombs of Kentucky, Attorney General John Breckenridge, and others, with respect to chemical processing plants for nuclear fuels. I mentioned my forthcoming trip to Kentucky later this month and my plans to meet with the Southern Interstate Nuclear Board in Louisville, Kentucky, on April 27th.

I said that another broad area of cooperation is through these states' educational institutions. I mentioned the cooperation of ORNL with educational institutions through the Oak Ridge Institute of Nuclear Studies. I also mentioned our attempts at diversification at the Oak Ridge National Laboratory. Finally, I mentioned my conference with South Carolina Governor Donald Russell about a month ago and my trip yesterday to the Savannah River Operations Office, where I investigated the possibilities of the Savannah River Laboratory cooperating with the nearby universities. I also mentioned that AEC has research contracts with nearly every university in the South.

It was requested that we have a representative to act as liaison with Secretary Roosevelt and Lee White.

I sent my biweekly report (copy attached) to the President.

UC

OFFICE DIARY
GLENN T. SEABORG
Chr USAEC, 1961-72
FOLDER-PAGE 28059

April 9, 1963

CLASSIFICATION CANCELLED *
WITH DELETIONS
BY AUTHORITY OF DOE/OC

Curt Wilson 11/24/87
REVIEWED BY DATE
*Ltr. DOS Burke To DOE, OC
Gilbert dated 8/19/87
J. Diaz 11/30/89

Dear Mr. President:

I have the pleasure of submitting to you the regular bi-weekly report on significant developments in the atomic energy program: -

1. German Reactor Program (Unclassified)

The Commission has determined that a cooperative research and development program with West German and EURATOM authorities would contribute to the advancement of fuel technology for the Gas-Cooled Reactor Program. Under this arrangement a particularly promising coated particle reactor fuel material, recently demonstrated by the AEC, would be the nuclear core in the German AVR reactor (pebbles bed reactor) for a demonstration test at a program cost considerably less than that which either country would pay by itself. The results of that test should make an important contribution to the technology and optimization of high-temperature gas-cooled reactors.

The proposal as presented in the proposed AEC authorizations would provide \$5,500,000 for the AEC costs in the participation with the West Germans in research and development on high temperature gas-cooled reactors. The Germans, in addition to supplying the reactor, have indicated their willingness to consider paying the Commission for energy to be derived from the U.S. fuel. EURATOM may also contribute financially.

2. Lithium Sale to the French CEA

On March 19, 1963, the Department of Commerce received an inquiry from the American Potash Company concerning the possible sale of 1,100 tons of natural lithium hydroxide to the French CEA. Aware of the possible relation of such a sale to the French nuclear weapons program, American Potash asked whether the U.S. Government would object. American Potash was requested to delay contact with the French until the proposed transaction had been evaluated.

The Department of State, which has primary responsibility for this action, has notified AEC that the Department's staff position, pending concurrence by the Assistant Secretary of State for Economic Affairs, would be to deny approval of this transaction.

No shortage of lithium exists

1,3(a)(2)

on the world market.

3. Re-Entry Flight Demonstration

An aerospace nuclear safety flight test will be conducted by the AEC at Wallops Island, Virginia, on April 15, 1963. The objectives of this test will be to evaluate the effects of aerodynamic heating on the disassembly mechanism of an aerospace nuclear reactor re-entering the earth's atmosphere and to determine ablation rate data on SNAP (Systems for Nuclear Auxiliary Power) and Rover-type fuel materials.

The payload will be launched on a four-stage Scout vehicle procured from NASA. The launching will put the reactor mockup in an 800 mile suborbital trajectory which will pass about 125 miles Southwest of Bermuda. The trajectory will not be over any inhabited areas.

Yesterday, Senator Thurmond, Commissioner Palfrey and I visited the Commission's Savannah River Plant near Aiken, South Carolina. This plant, which is operated by the Dupont Company is one of the two large AEC plutonium production sites. We found our visit to be informative and useful.

Respectfully submitted,

(Signed) Glenn T. Seaborg

Glenn T. Seaborg

The President
The White House

Wednesday, April 10, 1963 - D.C.

I attended the Authorization Hearings again today. I made a statement on the importance of research to our national security.

We had a big problem today--the release of letters by Adrian Fisher and Senator Thomas Dodd regarding the neutron bomb. I called Fisher at 9:30 a.m. about his letter to Dodd (published in the "Congressional Record", attached) and said that the JCAE is quite disturbed about it. He said he had sent copies of the proposed letter to Lee Haworth and Harold Brown. I asked him if he had what he thought was clearance from Haworth, and he said he had talked with him. He said he did not mean to put Haworth on the spot. He said he hopes that Charlie Marshall can make him out an honest man.

At 9:35 a.m., I called Charlie Marshall who said that according to the latest Classification Guide, this type of information is classified secret, restricted data.

At 9:50 a.m. Wiesner called and said he understands AEC is concerned about the letter Fisher wrote to Dodd, and he wants to assure me that the letter had been cleared at the White House. I told him that Adrian had sent a copy of the letter over to Lee Haworth but not in such a way that Lee thought he was to get security clearance. Jerry said that as a matter of fact he feels there is considerably less in the Fisher letter than in the recently discussed Bethe article, which had been cleared by our security. I said the Bethe article technically cleared our Guide after two deletions. Jerry said, as far as compromise is concerned in the Fisher letter, he believes this is a technical question. He said that he and Kaysen had seen the letter and they didn't think it was technical. I asked if Bundy had seen the letter and he said he didn't know, that all of his dealings had been with Carl Kaysen.

I then called Bundy about the matter and told him the JCAE has asked for an analysis of whether the letter contains any restricted data, and they would like this as soon as possible--preferably this afternoon. I read Bundy the sentence in the Fisher letter which is in violation of the Classification Guide: "Frankly, I don't think a possible reaction to the tactical use of nuclear weapons by us would be very much different whether it were a matter of our developing and using pure fusion weapons or an enhanced radiation weapon of a type now available." The underscored portion directly violates the Guide.

I said there is a violation of RD but Haworth and I think it is in a technical sense. I asked if the President has seen this, which could be a way out. It takes Commission action to clear it over here, but we cannot give clearance after the fact. If the President had looked it over and cleared it, it is possibly within his power and we could follow it up with a confirming action. At this point Lee Haworth picked up the phone and explained to Bundy that Fisher had asked for his comment, and, therefore, he can understand why Fisher might assume that Haworth had given him clearance. Haworth said he was willing to take any responsibility on that account. I said I don't know that the matter of declassification was within Haworth's power; all he could have done was to refer it to the Classification Division, which would then recommend the change to the Commission. Bundy said that this matter was cleared by the highest authority, and he asked that I check the law. I said this will be done immediately.

Bundy called back later and said he wanted some technical information to explain "enhanced radiation" and "clean" weapons readily available. I said that, in this respect, Fisher is a little wrong. We have solved the problem in principle and could begin to design the thing. I said we looked into the matter of the

of which he is now Deputy Director, and I do not believe the Agency could have found a more competent man for this very important position. On the issue of the test ban negotiations we disagree; but, as I stated in my letter to him, I hope that the mutual respect that has characterized our exchange of views at least serves to demonstrate that honest men, sharing the same values and goals, can nevertheless differ sharply over the means to be used in striving after their common objectives.

There being no objection, the material was ordered to be printed in the Record, as follows:

**U.S. ARMS CONTROL
AND DISARMAMENT AGENCY,
Washington, March 14, 1963.**

The Honorable THOMAS J. DOBBS,
U.S. Senate.

Dear Senator DOBBS: I certainly appreciated the kind personal references to me in your communication of March 7 to the Washington Post and assure you that they are appreciated. I agree with you that it is important that the merits of the nuclear test ban issue be the subject of intensive public discussion. I have studied your communication carefully and find that there are some things in it with which I disagree and, as a result, I would like to carry the dialog one step further in putting before you the considerations which have led the national security advisors to the President to the view that a nuclear test ban treaty, of the type now under consideration, is in the interest of the national security of the United States.

As I read your letter there are basically three reasons why you believe the United States should not sign a test ban treaty: (1) because you believe we have lost our lead in nuclear weapons; (2) because you believe such a treaty, in your judgment, would prevent us from dramatically strengthening the security and peace of the free world by causing new discoveries resulting from continued testing; and (3) because, in your judgment, the proposed U.S. treaty does not provide a system of inspection which gives reasonable assurance that the Soviets are not cheating.

The first two of these three arguments are not directed against the position which the United States now has on the table at Geneva but are rather directed against any comprehensive treaty banning nuclear weapons tests which might be negotiated. All of them overlook the risks implicit in continued testing by both sides of the nuclear arms race.

First, the United States has not lost its lead in nuclear weapons or in our strategic military posture which includes nuclear weapons as one of its elements. The current nuclear arsenal of the United States is larger and more diversified and more sophisticated than that of the Soviet Union. We have produced nuclear weapons in large quantities and have developed the necessary nuclear warheads for all of the U.S. long-range missiles and tactical weapons. It is true, however, as the President has stated many times, that the continuation of the arms race is giving the United States less, rather than more, security. This is not because our lead in nuclear superiority has been lost to the Soviet Union, but because the arms race goes on, of which unlimited testing is a part, the more the nuclear arsenals of the United States and U.S.S.R. will build against each other. An illustration of this fact is that it is generally recognized that the United States would have been better off in its nuclear position, had the arms race during the Eisenhower administration been a nuclear test ban been successful. Moreover, the technology developed by unlimited testing may not remain

a possession of either the United States or the Soviet Union unless an agreement is reached to curtail testing. Unless an agreement is reached to curtail testing, sooner or later this technology will become available to many other countries.

Second, the security and peace of the United States and the free world would be strengthened more by an effective test ban treaty than by continued testing to develop and produce new advances in nuclear weapons.

There is no question that further nuclear testing can and would bring advancements to the total U.S. stockpile of nuclear weapons. Continued testing, however, would also bring advancements to the Soviet stockpile. Any agreement to turn down the arms race, whether in the field of nuclear testing or otherwise, will be open to the argument that it precludes some field of weapons development which might otherwise be open to us. This is a factor which certainly must be taken into account. Any such agreement should be entered into only if, in the light of our current weapons posture and the restraints which will be placed on the Soviet Union, such an agreement will be, on balance, in the interests of our national security. The present U.S. position was recommended to the President not only by the Arms Control and Disarmament Agency but also by the Department of State, the Department of Defense, and the Atomic Energy Commission as meeting these criteria. In the deliberations which led up to this position, consideration was given to both the effects of this position on the development of the AICBM and the pure fusion weapon.

With respect to the AICBM, the most important problems relate to the development of a system which can handle the problem of separating actual warheads from penetration aids. This is the key problem needing solution. We now have warheads available for an AICBM without further testing. So far as the constraints on the Soviet Union are concerned, development by them of important new data on nuclear effects as they influence AICBM systems could not be accomplished without an extremely high probability of detection.

With respect to the pure fusion bomb, it should be pointed out that the development of such weapon is by no means certain. Moreover, as you know, we have already made significant advances in the direction of tactical weapons with a smaller fusion as compared with fusion component. There is, therefore, a real question as to the utility of a pure fusion bomb over weapons already available. We must gage the difference between a pure fusion weapon and weapons now available not only from the risk of fallout, or of damaged property, but from the risk of escalation. Frankly, I don't think a possible reaction to the tactical use of nuclear weapons by us would be very much different whether it were a matter of our developing and using pure fusion weapons or an enhanced radiation weapon of a type now available. I believe that, if such pure fusion weapons were developed, their primary significance would be in providing a cheaper substitute for the explosive component of our very large stockpile of fission weapons. However, considering the very large numbers of nuclear weapons that would be available to both the United States and the Soviet Union in the time period when such a device might become available, its existence would not appear to constitute a great advantage to either side. Such a weapon would be of greater significance to other countries that do not as yet have a nuclear capability. For this reason, an inhibition to the development of fusion weapons would be to our net advantage.

Third, the treaty which the United States is prepared to negotiate does provide adequate assurance that the Soviet Union could

not conduct a significant test series without our knowledge. Perhaps easier descriptions of the U.S. position which you have read have not been sufficiently clear or detailed. Your statement that, "for 18 years the Soviets have rejected this principle (i.e., adequate onsite inspection and control) and we now yield to them by saying that our reliance is on a system of outside monitoring and that the token inspection inside the Soviet Union is only supplemental and unimportant," does not describe our present position. We are, in fact, emphasizing the necessity of an adequate number of properly conducted inspections and at no time has anyone said that these inspections were supplemental or unimportant. We have proposed an outside monitoring system since the technical facts based on the normal operation of our existing intelligence detection system indicates that such a system would have almost the same detection capability as a system located inside the Soviet Union according to the original Geneva specifications and might in practice actually be more effective since it would be fully under our own control and could be put into operation immediately upon treaty signature instead of requiring 2 to 4 years to build.

Further, in challenging the effectiveness of our proposed detection system you put your argument primarily on the assertion that "it is now possible for the Soviets to test secretly in outer space and to test large weapons underground without any possibility of detection." With regard to testing in outer space, there are several detection techniques that can detect from the surface of the earth nuclear explosions out to the distance of the moon and other satellite-based systems are within the state of the art that could detect explosions at distances of hundreds of millions of miles (beyond the distance of the sun). With regard to the possibility of testing large weapons underground, I assume that you are referring to the possibility of testing in very large underground cavities. Continuous communication over the past few years of this technique indicates that such underground cavities would be extremely difficult and costly to build. In attempting to undertake a project of this extent, a potential violator would run a serious risk of being detected by non-seismic means long before he even reached the point of testing. I believe that you have not given sufficient consideration to the vast technical problems and large expenditures that a violator would face in attempting to conduct a significant series of tests in outer space or in underground cavities in a manner calculated to avoid detection. In view of the many uncertainties involved in these complex methods of evasion, a violator could never be sure that his attempts at clandestine testing, no matter how elaborately conceived, would not be discovered by a national detection system whose total capabilities the violator would not know in detail.

Your letter contains an extract from Mr. Foster's testimony before the Special Preparedness Subcommittee of the Senate Armed Services Committee which you believe points to a contrary view. In the extract which you quote Mr. Foster was recapitulating his reply to a question directed to the contribution of stations on Soviet soil to the problem of identifying an event as an earthquake, a contribution which, although noticeable, could not be called a breakthrough. His testimony, as a whole, as well as the recent testimony of both Government and private witnesses before the Joint Committee on Atomic Energy, supports the conclusion that there have been improvements in our verification capability, both caused by an improved capability for long-distance detection and identification of underground events which could be caused by nuclear explosions or earthquakes, and a better in-

secretary of the number of underground events in the Soviet Union.

You refer to the requirement of Soviet approval of a budget and to the appointment of an executive officer as an illustration of a Communist veto which could prevent on-site inspections. These are provisions which have been in the U.S. position for almost 3 years, but under the proposal now under consideration, the primary emphasis is being placed on on-site inspections of the U.S.S.R. by United States and United Kingdom personnel, and vice versa. Under these circumstances, Soviet refusal to agree on an executive officer or on an adequate budget could not frustrate the conduct of on-site inspections.

The advantages and risks involved in a test ban have been weighed by the President and his key advisers in the national security area on a number of occasions since the negotiations began in 1953. Each time the conclusion has been that the advantages outweighed the risks.

I would hope that the arguments I have presented to you as to why a test ban treaty is in the U.S. interest and that the position favored by the United States provides reasonable assurance against cheating would persuade you to give further consideration to this question and that you would withhold judgment on a treaty pending the outcome of the negotiations.

Despite the rather lengthy list of disagreements discussed above, I appreciate the tone in which your letter was written. I would also appreciate if you could put this letter in the record.

With kindest personal regards,

Sincerely,

ADAM S. FISHER.

U.S. SENATE,
COMMITTEE ON AERONAUTICS
AND SPACE SCIENCES,
March 29, 1953.

Mr. Adam S. Fisher,
Special Director, Arms Control and Disarmament
Administration, Washington, D.C.

Dear Mr. Fisher: I am grateful to you for the attention you have given my personal communications on the subject of a nuclear test ban. I believe that our exchange of letters has served to give the public a better understanding of the issues involved and because of this I welcome your proposal that your detailed letter of March 14 be placed into the CONGRESSIONAL RECORD. In doing so, however, I am taking the liberty of adding to several of your more important paragraphs.

In the second paragraph you construe my position as meaning that "the United States stands not for a test ban treaty." I do not believe you could have read this interpretation into my several statements, because I have very fully made it clear that I do favor a properly safeguarded test ban treaty. And, despite all the difficulties, I strongly support the quest for limitations on armaments.

Second, it is precisely because I believe that we must strive for realistic disarmament that I am opposed to the test ban treaty now under discussion.

It is my belief that the draft treaties we have recently proposed do not provide us with adequate safeguards against the possibility of Soviet cheating. I know that you agree with this premise; but the irrefutable fact remains that the many concessions we have made at Geneva have resulted in widespread misgivings, both in Congress and among the American people; and these misgivings have unfortunately had the effect of undermining confidence in the prospect of a test ban treaty.

This is in large part because the broadest public survey ought, ideally, to prevail. Instead, there is grave and widespread dis-

unity. I deplore this disunity; but I believe it can be overcome, or reduced, if we are prepared to insist on increased safeguards for a test ban treaty.

Surely there is room for honest differences as to what constitutes adequate safeguards; and, surely, we should be able to conduct this discussion without one side charging that other side is opposed to any kind of test ban treaty or, conversely, without charges of a sellout by the second side against the first side.

In my speech of this February 21, while I urged a frank reassessment of our status, I also warned against the abandonment of the test ban negotiations. I said that the original Geneva formula, although it was unsatisfactory in many ways, at least called for a significant measure of opening up on the part of the Soviets and that it might have led, and may yet lead, to an acceptable treaty.

In my speech of May 10, 1953, in which I first addressed myself to the test ban negotiations, I called for a unilateral cessation of all tests that contaminate the atmosphere, even in the absence of a treaty. I still believe that the national interest and the interest of world peace would be served if, recognizing the difficulty of achieving a treaty, we committed ourselves to the suspension of all such tests—with the understanding, of course, that we would be free to resume such tests if the Soviets failed to observe a corresponding moratorium, and that every effort would be made to keep our facilities in a state of readiness, so that there would not again be a time lag of almost 1 year while the facilities and personnel essential for the conduct of atmospheric tests were reassembled and readied.

I take this stand because I consider it essential that we take every possible initiative to reduce the dangers that may result to the human race from continuing atmospheric fallout. I do so despite very serious misgivings about the ability of a democratic state to keep testing facilities in readiness while it is adhering to a moratorium on testing. President Kennedy dealt with this matter frankly in the following statement made on March 2, 1953:

"But in actual practice, particularly in a society of free choice, we cannot keep top-flight scientists concentrating on the preparation of an experiment which may or may not take place on an uncertain date in the future. Nor can large technical laboratories be kept fully alert on standby basis waiting for some other nation to break an agreement. This is not merely difficult or inconvenient—we have explored this alternative thoroughly, and found it impossible of execution."

The differing conclusions we arrive at stem, I believe, from three principal sources: (1) conflicting evaluations of what constitutes the major threat to our national security; (2) conflicting estimates of Soviet intentions; (3) radically different estimates of the potentialities of nuclear technology.

On the first point, if I understand your position correctly, you apparently consider the proliferation of nuclear weapons—the menace of the so-called "nuth action"—to be the prime source of danger. I am concerned with this matter, and I believe that we must strive to prevent the spread of nuclear weapons. But this in my opinion is a minor danger compared with the moral danger to our national security if the Soviets should ever achieve nuclear superiority over us. It is, moreover, a danger that belongs to a period 10 or 20 years in the future, while the peril posed by Soviet communism belongs to today. Instead of permitting ourselves to become obsessed with the hypothetical danger posed by a hypothetical "nuth" nation in decades to come, we would do well to concentrate on the real, immediate, and des-

perately urgent problems posed by the existence of Soviet imperialism.

In your letter you argue that "the longer the nuclear race goes on, the more the nuclear forces of the United States and U.S.S.R. will tend to equal each other." This state further that "it is generally recognized that the United States would have been better off in its nuclear position had the efforts made during the Eisenhower administration to obtain a nuclear test ban been successful."

I believe that this statement may accurately be described as the premise for your entire argument. I differ with this premise on several counts.

I do not believe that nuclear technology has reached the ultimate point of its development, or that it has leveled off. I believe that this technology, which is still in its infancy, will witness many more revolutionary advances.

I do not believe that Soviet technology was bound to catch up with ours, or is bound to catch up with ours in these areas where we still lead, simply because of the fact that both sides engage in testing. On the contrary, I believe that we had the scientific brains and the resources to maintain our lead in all phases of nuclear technology if we had made a serious effort to do so.

If the Soviets have now paried even with us in strategic weapons technology, it is not because we continued to test or because there was no test ban treaty. On the contrary, it was because we suspended our test program for more than 3 years, under the terms of a moratorium which gave the Soviets all the advantages of a test ban treaty, so far as our side was concerned, without any of the disadvantages or inhibitions of a monitoring apparatus or on-site inspections.

Obviously, if the Soviets continue to run as fast as they can, while we stop running for years on end and then dawdle along at a fraction of capacity when we resume running, the Soviets are not only bound to catch up with us but will ultimately surpass us.

In the light of the known record, I simply cannot understand how the relative progress scored by the Soviets in nuclear technology can be blamed on the failure to achieve a test ban treaty, or how it can be used to justify the hypothesis that the continuation of the race in nuclear technology was bound, in any case, to result in an evening out between ourselves and the Soviets.

I also believe that the moratorium was a mistake from the standpoint of achieving an acceptable treaty on nuclear testing. I believe that the Soviets would have had far more reason to come to terms if we had demonstrated our determination to maintain and even extend our lead in nuclear technology, so long as there was no formal treaty. Conversely, I believe that by largely inactivating our own technology and depriving ourselves of our most effective weapon in the test ban negotiations and removed any incentive the Kremlin may have had to come to terms.

My previous statement concerning Soviet superiority was not intended to apply to the entire weapons spectrum, but referred specifically to large-yield strategic weapons. I note that while you do not challenge my contention that the Soviets have at least pulled even with us in strategic weapons technology, you contend that we remain a significant ahead-of-the-board lead. That we enjoyed a clear-cut lead in 1953, before the moratorium went into effect, is no doubt true; but I frankly doubt that any broad spectrum lead exists today.

Perhaps the most liberty approach of the relative positions of the United States and the Soviet Union has been expressed by Dr. Edward Teller, who, I believe, has the closest access to the facts. Teller states:

"Who is ahead? I truly don't know. But I can go a little further. Before the

knows—at least not in our country. True we can observe their explosions to a limited degree. But to judge their progress in the way we are able to judge them is like judging a restaurant by smelling the smoke from the kitchen. This is not a complete or reliable or scientific evaluation, and we cannot and should not let the fate of our Nation and of the free world depend upon guesses, based on such scant information.— They (the Soviets) have conducted more nuclear tests recently than we. They have had many more big thermonuclear explosions than we. They are not fools. Through these repeated tests they are finding out more information. On the basis of any valid, commonsense arguments, they should be ahead of us today. It is my guess, and it is only a guess, that today the Russians are ahead of us in nuclear weapons."

That the Soviets have at least pulled even with us in strategic technology has, I believe, been demonstrated by our analyses of their massive series of atmospheric tests.

In the very large yield area, that is, tens of megatons, we are very clearly behind by virtue of the fact that we have neglected to do any testing in this region. In the yield area which ranges from about one megaton up to several megatons—that is, the range which encompasses most of our strategic missiles, such as Atlas, Titan, and Minuteman—we have a statement from Dr. Hans Bethe, chairman of the panel which evaluates Soviet tests, that the Kremlin in its several recent test series, placed very great emphasis on warheads of this magnitude. As Bethe suggests, the Soviets may very well be ahead of us in these yields; the sad truth is that we really do not have the technical ability to judge.

We have much less ability to evaluate Soviet progress in the low yield range, which embraces air defense weapons as well as tactical weapons. Conducted underground, most of these tests would defy detection, let alone analysis. As for the neutron bomb, since it produces no significant radioactive debris it could probably be tested, if required, in the atmosphere and still deny any hope of assessment by us.

While you contend that we still retain an impressive lead over the Soviets, it is interesting to note that the responsible Soviet authorities have spoken in considerable detail of the lead they now enjoy over the United States in nuclear weapons. Let me quote, as an example, a statement from the recent Soviet book, "Military Strategy," put out by Marshal Sokolovskii, former chief of the general staff, and 14 other senior Soviet officers:

"In the 1960's nuclear weapons were supplied already to all branches of the Soviet armed forces—strategic missile forces, ground forces, air forces, the navy and air defense forces. Along with this, our armed forces received nuclear warheads with yields from several tons to tens of millions of tons. Considering that thermonuclear weapons were created in the Soviet Union earlier than in the United States—and most important of all—that the United States of America does not possess super-powerful thermonuclear warheads of several tens of millions of tons which the U.S.S.R. has, we consider that our superiority over the Western bloc in nuclear weapons is indisputable."

Perhaps this statement is exaggerated at certain points, but it is always a safe maxim to overestimate one's enemy rather than underestimate him. I believe the Disarmament Agency is putting itself in a posture that invites criticism when, with no tangible proof to back up its assertion, it assures the American people that our lead is secure and indisputable.

You say that I "overlooked the risks involved in continued testing by both sides." I do not overlook this risk. As I have pointed out, it is precisely because I recognize it

that I believe we must strive for a realistic test ban treaty. But whereas you seem to think that there is only a risk that the Soviets would endeavor to cheat, I take it as a certainty that the Soviet Government, which is publicly committed to our destruction, which has violated more than a thousand treaties and agreements in its brief lifespan of 45 years, and which has time and time again displayed a monumental contempt for world public opinion, will cheat if there is something to be gained from cheating, and if the chances of verification are nonexistent or marginal.

This is why I believe that a test ban treaty must incorporate far more rigorous safeguards against cheating than our present position at Geneva calls for.

I believe that a test ban treaty can safely be extended to cover all those areas where we can, with today's technology, maintain an effective monitoring system. On the other hand, I also believe, as I have stated several times, that we would be endangering the national security if we extended the treaty to cover areas where monitoring is clearly impossible or where there is no serious chance of detection and verification.

The recent testimony before the Joint Committee on Atomic Energy offered little encouragement about our current ability to detect small underground tests, or larger underground tests conducted in a cavity, or tests in outer space.

As you no doubt know, Dr. Carl F. Romney, Assistant Technical Director of the Air Force Technical Applications Center (who is generally recognized as one of our top seismologists), estimated that, even without decoupling, a series of underground tests conducted in alluvial soil below the level of 3 kilotons would probably escape detection.

This testimony took on added significance in the light of a statement by Dr. Jack Ruina, Director of the Advanced Research Projects Agency, that half our underground tests have been below 3½-kiloton level, and of a statement by Gen. A. W. Betts, Director of the Division of Military Applications, Atomic Energy Commission, that at this level tests could be conducted which had application to large-yield strategic weapons as well as to small tactical weapons.

You told me in your letter that space detection presents no serious problem and that "satellite-based systems are within the state-of-the-art that could detect explosions at distances of hundreds of millions of miles."

On the day that we have demonstrated our ability to verify tests in outer space up to a distance of several hundred million miles, I shall be willing to support a ban or moratorium on all such tests. But I note that, in his testimony before the Senate Preparedness Subcommittee last September, Mr. Paul H. Nitze, Assistant Secretary of Defense for International Security Affairs, admitted frankly that we have no present capability to detect tests in outer space.

I note further that Dr. A. W. Schardt, Deputy Director of the Nuclear Test Detection Office, Advanced Research Projects Agency, in his recent testimony before the Joint Committee on Atomic Energy, made it clear that the capabilities of which he was talking were all in the future. In reply to a question about our present capability to detect tests in outer space, he replied, "We do not have a satellite up, and I would say our present capability is zero."

Finally, I note that Dr. Schardt was careful not to claim any foolproof ability for the projected space system. He pointed out that tests might be very much more difficult to detect: (1) if they were shielded by large metalized space balloons; (2) if they were conducted on the other side of the moon, and; (3) if they were made to coincide with solar flares.

While tests in outer space are completely feasible with today's technology, the art of

verification in outer space is still on the drawing boards and it may take many years to emerge as an operating system. For this reason I am opposed to the inclusion of outer space in a test ban treaty at this juncture.

In your letter, you repeat the statement that "an inhibition to the development of fusion weapons"; that is, the neutron bomb—"would be to our not advantage." Your generalized statements about our detection capabilities for small underground tests are considerably more optimistic than those of Dr. Romney. But even if underground tests of 1 kiloton could be detected and verified—and I know of no one who has gone beyond this claim—I still fail to understand your reasoning when you say that a comprehensive test ban treaty, incorporating no threshold of detection, would inhibit the Russians from developing the neutron bomb.

The neutron bomb, as I understand it, is conceived as a weapon ranging from a yield of 1 ton, or even lower, to 1 kiloton. In my speech of February 21, I quoted from a statement by a Soviet Red Army Colonel, describing the tactical implications of a neutron bomb equivalent to 40 tons of TNT.

I should therefore like to ask, first, whether I seriously believe that we have any ability at all to detect tests at a 40- or 50-ton level, or whether you believe that such a capability lies just beyond the horizon. My own understanding from the recent testimony before the Joint Committee on Atomic Energy is that, while there are only some hundreds of large earthquakes each year, there are many thousands of small earthquakes which resemble subkiloton yields; and, when you go low enough on the earthquake scale, there are so many minor events that an ultrasensitive seismograph would record them as almost a continuous rumble.

In short, unless there should be some revolutionary breakthrough in the science of detection, the chances that we will be able to detect a neutron bomb test, or series of tests, of 50 or 100 tons magnitude, or even more, are precisely nil. When Dr. Romney, in his recent appearance, was asked about the possibility of detecting a 100-ton underground test, he was frank in stating that this was "out of the question."

The second question I should like to ask is, whether you believe that the men of the Kremlin, knowing that our chances of detecting such tests were zero, would refrain from conducting such tests out of considerations of honor.

On the one hand, you argue that a test ban agreement on the terms now under discussion would be to our advantage because it would inhibit Soviet development of such a weapon; from this, one would conclude that the neutron bomb would be a weapon of serious significance. On the other hand, you argue that our tactical nuclear weapons arsenal is already so highly developed that it would not seriously affect our position if the Soviets did succeed in achieving the neutron bomb. This is a rare instance of two arguments which contradict each other and each of which, separately, is demonstrably false.

I have already explained why a comprehensive test ban treaty could not, by any stretch of the imagination, inhibit the Russians from developing the neutron bomb. Let me now deal with the other part of your statement.

I am aware that there are a number of people who share your estimate that the neutron bomb would have no revolutionary advantage over some of the tactical nuclear weapons now in our arsenal. I am also aware that, before we got the H-bomb, there were some scientists, including several who have held key positions as advisors on the test ban, who argued that the H-bomb would not have the revolutionary implications claimed by its proponents, that there was nothing an H-bomb could do that couldn't be done just as well by a beefed-up A-bomb.

You say that it is not at all certain that the neutron bomb can be made. But the entire past experience of nuclear technology has been that those things that are theoretically feasible, ultimately turn out to be feasible in practice. I know of no exceptions to this rule.

I consider it of some significance that the scientists who today dispute or question the scientific feasibility of the neutron bomb, include those: (1) who expressed negative opinions concerning the feasibility and the advisability of making the H-bomb; (2) who have advised us into our present disastrous posture in the test ban negotiations; and (3) who have had no serious experience with the developmental work that has already been done in this area.

I also consider it of some significance that the scientists who have been concerned with the development of the neutron bomb and who have firsthand knowledge of the project, have been reluctant, because of the excessive secrecy which surrounds the project, to discuss its feasibility publicly. I have reason for believing, however, that your reservations concerning the feasibility of the neutron bomb does not accurately reflect the opinion of these scientists. Perhaps it would be helpful to the American people in assessing this matter if the cloak of secrecy were lifted so that the scientists who are associated with the project and believe in it, could be heard.

I think you will agree that there are some highly competent scientists and military men who have gone on record with an evaluation diametrically opposed to your own. They believe that the neutron bomb would have revolutionary implications because of its numerous advantages over the tactical fission weapons on which we now rely. The pure fusion weapon would be far cheaper to produce in quantity; it would be much more effective than fission weapons; it would do little damage to our allies' urban centers; and, of great importance, it would virtually eliminate widespread fallout. On the one hand, this would enable our troops to follow up on a tactical nuclear barrage without delay and without danger to themselves. On the other hand, the absence of significant fallout would reduce the political opposition of our allies to the use of tactical nuclear weapons and, to this extent, would make the need for such weapons far more plausible.

You contend that the neutron bomb would not have any critical advantages over the fission-fusion weapons which we already have in our development program. This development has been known to me for some time, but I have hesitated to refer to it, because of its classification. I am delighted that you have chosen to bring the existence of our fission-fusion weapons into public discussion, since it enables us to discuss the entire program more frankly.

It is difficult to understand the procedure which you arrived at the conclusion that the great difference between the pure fission weapon, or neutron bomb, and the fission-fusion weapons we possess today, is primarily one of cost. Actually, the pure fission weapon would have numerous advantages which could be tailored in far lower, more penetrating fields. It would be considerably lighter and, therefore, more versatile in its use.

In terms of nuclear costs, it would be cheaper by a factor of 10- to 100-fold, or even more, than fission weapons or fission-fusion weapons.

You imply that we have an adequate supply of plutonium and of tactical nuclear weapons. I feel that this estimate can only be explained in terms of the official rejection of the possibility of limited nuclear warfare, which I considered at length in my Senate statement of February 21. As you may recall, I argued at that time that the advent of the neutron bomb would make

tactical nuclear warfare far more plausible, and that we had to face up to this prospect realistically.

Having said this much about the superiority of the neutron bomb, I nevertheless wish to express the hope that top priority will be accorded to the fission-fusion weapon you describe, as an interim system, until the neutron bomb becomes available. I should be grateful if you could inform me whether production requirements for this weapon have actually been established by the Department of Defense.

If it ever comes to limited nuclear war, tactical weapons may be needed in the many thousands. As you are aware, the Joint Chiefs of Staff have several times urged the expansion of our plutonium production, so that our tactical weapons might be produced in larger quantity. The production of a pure fusion weapon would liberate our Armed Forces from this limitation, and make tactical weapons available in quantities adequate for any contingency—at only a small fraction of the cost of our current tactical weapons.

You challenge my assertion that the development of an effective antimissile missile is also tied in with the problem of underground testing, specifically as it relates to the neutron bomb development. I am, of course, aware that the missile and radar components of an antimissile system can be tested even under the conditions of a test ban treaty.

I am also aware that perhaps the single most important problem relating to the antimissile missile has to do with the development of a system capable of separating actual warheads from penetration aids. If the enemy should carry this offensive technique one stage further, and employ penetration aids in the form of multiple warheads, our currently envisioned antimissile capabilities would be completely inadequate. The technological possibility of multiple warhead attacks, in fact, constitutes one of the most formidable obstacles to the effective defense of our industrial and urban areas.

It is precisely from the standpoint of overcoming this obstacle, that the pure fusion, neutron bomb-type of warhead would be of key importance. In the first place, it is generally accepted that this warhead would have a far more effective kill capability than a conventional nuclear warhead. In the second place, and most important of all, the extremely low cost of the pure fusion warhead would make it possible to develop an antimissile defense system quantitatively capable of dealing with saturation raids even by multiple warhead missiles.

You question my statement that even quite large tests could be conducted underground without fear of detection. I do not know why it is that the proponents of the present test ban treaty persist in belittling the "big hole" theory with the tortured argument that it would be extremely expensive and extremely time consuming to create a 500-foot spherical cavity such as Dr. Latter postulated in preventing the big-hole theory. Dr. Latter's 500-foot cavity, according to his calculations, would reduce the seismic impact of an underground shot by a factor of 300, so that a 300-kiloton shot would register as 1 kiloton. In downgrading the possibility that the Soviets may use the big-hole technique for purposes of cheating, your letter ignores the fact that a much smaller hole would still result in a substantial reduction of the seismic impact of an underground test.

I have been informed by people who are competent in the field that at the 20-kiloton level, and even lower, tests can be conducted that have application to our largest multi-megaton weapons. If the Soviets were to excavate a hole big enough to reduce the seismic impact of such a shot by a factor of only 30, 20 kilotons would produce a seismic signal of less than 1 kiloton. This low

signal would probably not even be detectable, let alone verifiable. Yet, this level of decoupling would involve a cavity of relatively modest size, which would be cheaply and easily constructed.

I would also point out for the record that the recent testimony established that a substantial reduction could be achieved in cavities that are elliptical or flattened rather than spherical. Such cavities are much more easily engineered, and for that matter, are frequently found in nature.

Your letter makes obscure reference to the possibility of detection by nonsolismic means, by which I assume you mean conventional intelligence operations. There is always a mathematical possibility that some conscience-stricken Soviet scientist may decide to cooperate with American intelligence in reporting a Soviet test ban violation. But on the basis of our intelligence record to date, I do not think that we can attach any serious weight to this possibility. I would remind you that our intelligence community had no advance knowledge of the Soviet A-bomb, no advance knowledge of her H-bomb, no advance knowledge of sputnik, and no knowledge of the emplacement of Soviet missiles in Cuba until they were photographed in position on their concrete emplacement. It is worthwhile recalling, in this connection, that the Soviets denied point blank that nuclear missiles had been installed in Cuba until we produced the irrefutable photographic evidence.

In recapitulating this record, I do not mean to criticize our intelligence community. I simply wish to make the point that intelligence operations in a closed totalitarian society are incredibly difficult and that the Soviets have been consistently successful in concealing from us even the most massive technological and logistic operations.

It has repeatedly been stated that so long as there is a chance of detection and verification, this would serve as a deterrent to any Soviet treaty violation. I believe the American people are entitled to a precise statement, or at least to an approximate estimate, of what is meant by "a chance." If it means one chance in two, or one chance in five, most people would agree that such a probability factor would act as a deterrent. But if "a chance" means 1 chance in 1,000 or 1 chance in 100,000, it clearly would not constitute a deterrent to a determined and aggressive cheater; nor would it command the confidence of the American people.

I propose to examine some of the problems connected with detection and verification because, as I see it, there are so many improbabilities at so many different points in the entire process, that 1 chance in 1,000 would, if anything, be an optimistic estimate.

Your letter completely ignores the tremendous difficulties that monitors would inevitably encounter, first, in endeavoring to locate the site of a suspected explosion with some precision, and, second, in obtaining concrete proof, or verification.

Mr. Ruzin testified that, whereas before the Gnome underground test, it was felt that we could locate the precise origin of seismic events within a radius of some 10 kilometers, the Gnome event surprised the community of scientists working in this field by producing a 30-kilometer error in the calculation of point of origin. Such an error would mean that an inspection team would have to cover more than 3,000 square kilometers or 1,000 square miles to verify one event. In the light of the Gnome experience I find it difficult to understand why we have now offered to confine any given on-site inspection to an area of 500 square miles. But 500 square miles, so it seems to me, would still be a tremendously large area to inspect.

It was also estimated in the recent hearings that it would require a minimum of 2 weeks after the detection of a suspected

such an event before an inspection team could be assembled, the matter could be processed, and a team down in to the area in question.

It was also estimated that, apart from their normal logistical supplies, the team would require 100 to 200 tons of drilling equipment, which, in remote areas, would have to be moved from point to point by air as one drilling after another failed to produce the evidence for which we were looking. I think it pertinent, in this connection, to recall some of the testimony presented to the Joint Committee on Atomic Energy in its hearings of April 1960.

Dr. C. E. Violet, of the Lawrence Radiation Laboratory, estimated the probability of locating radioactive debris from a 1.7 kiloton underground test at 1 in 100,000.

Dr. Richard Foose, of Stanford Research Institute, offered little grounds for encouragement. Dr. Foose estimated that, provided the area of suspicion could be cut down to 500 feet in radius, it would require only 63 drill holes in triangular grid patterns to insure a 100-percent complete search. The drilling of 63 holes, it was pointed out, would involve a total footage of 73,600 feet, or the equivalent of 3 Mount Everests, and would require 1,008 man-days of drilling. Dr. Violet did, however, point out that if one were willing to settle for a 1 in 20, or 1 in 10, chance of verification, fewer holes would be necessary.

In the light of all this, I cannot help wondering whether we have faced up realistically to the stupendous problems involved in achieving verification.

Much has been said about the techniques that have been evolved for surface observation; but, in small type, it is admitted that most of these techniques would be thrown into a cocked hat if the Soviets chose to make surface observation difficult by conducting their tests in their northern areas under cover of the long Arctic night, or if they conducted them under shallow waters, or deep underground.

In reply to a question I have put to Advanced Research Projects Agency, I have been informed that it would require weeks to disassemble a drilling rig after a first failure, transport it to another point, reassemble it, and drill to a depth of 10,000 feet.

Under these circumstances, how many holes can we realistically expect to drill in each on-site inspection and what probability of verification would this number of drillings actually give us?

There is a simple mathematical fact which has not been given the consideration I feel it deserves.

Before it can be certified that a test has taken place, there are four separate hurdles that have to be crossed: (1) detection, (2) identification, (3) location, and (4) verification. There is a probability factor attached to each one of these hurdles, and all of these probability factors have to be compounded in order to calculate the chances of final confirmation.

No one has seriously attempted to calculate these probabilities. But from everything I have read, I would be surprised if the probability figures were any better than 1 in 100.

Finally, there are political factors that enter into the equation of detection and verification which, I believe, have not been given sufficient consideration.

If a comprehensive test-ban treaty calling for 100, or even on-site inspections are to be ever signed, I can conceive of the Soviets permitting us to squander half of our resources during the first half of the century on the seismic events; and, after it had been established that these seismic events had been caused by genuine earthquakes, I am sure that there would be no deaths of innocent people who will construe

this as proof that we were wrong to distrust the Russians.

I can even conceive of the Russians permitting us to conduct an on-site inspection in an area where an underground test had actually taken place, confident that the odds were more than 1,000 to 1 in their favor.

But if the inspection team ever decided to erect a drill rig in the vicinity of a clandestine underground test, I simply cannot conceive of the Russians permitting the team to complete its operation and come up with a radio-active core for presentation to the bar of world opinion.

If past behavior is any indication of future behavior, the Kremlin at this juncture would probably order the inspectors out of the country on the grounds that they had been engaging in espionage, charge that it had incontrovertible evidence that the United States had engaged in clandestine testing, and, if we objected strenuously enough, abrogate the treaty on its own initiative rather than waiting for us to do so.

We have been told that if we catch the Soviets cheating, or if they refuse to cooperate in an on-site inspection, or if they themselves abrogate the treaty, we would consider ourselves free to resume testing. All of this has been said in a manner which strongly implies that there is nothing to be lost. But I find small consolation in the prospect that we will be free to resume testing if the Soviets violate the rules. By inactivating our nuclear technology during the recent ill-fated moratorium, the Soviets were able to wipe out an estimated 3- to 4-year lead in strategic weapons technology. If they could similarly inactivate our technology for another 3 to 4 years under the terms of a test ban agreement, we might one day discover that the Soviets had been cheating all along; and we might simultaneously discover that they had forged ahead of us in nuclear technology in several critical respects. It will be an ominous day for the free world if such a situation should ever arise. Our own resumption of testing might come too late to do any good.

Specifically, I should like to urge again:

1. That we return to the original Geneva formula for a monitoring network, which called for 20 stations in the Soviet Union, manned by non-Soviet nationals.

2. That tests in outer space and underground tests below the threshold of detection be exempted from the treaty, with the provision that these exemptions be narrowed as improved methods of detection are devised.

3. That we withdraw our offer to accord the Soviets a veto over the budget of the control organization.

4. That we return to the position we held for almost 2 years on the question of on-site inspection—that is, that we have the right to inspect any seismic events above the level of 5 kilotons that cannot clearly be identified as earthquakes, and 20 percent of the seismic events below this level which have been recorded but cannot be clearly identified.

5. That if the Soviets reject these terms, we let them know in advance that we will instruct our laboratories to push full steam ahead at every point of nuclear weapons technology.

6. That if the Soviets refuse to accept a realistic test ban agreement which would give both sides assurances against the possibility of cheating, we challenge them to join us in a moratorium on all tests that contaminate the atmosphere.

7. That, if the Soviets refuse to consent to such a moratorium, we commit ourselves before the world to conduct no such tests so long as the Soviets abstain from them.

In your closing paragraphs you expressed the hope that I would withhold judgment on the treaty, pending the outcome of nego-

tiations. I assure you that I shall at all times give the most careful consideration to the information developed by the Arms Control and Disarmament Agency in support of its position in the test ban negotiations. I also want to assure you that I have not spoken out lightly against the draft treaty we are currently discussing at Geneva. On the contrary, I have given the matter much study and thought and I have spoken only because I felt conscience impelled to do so before a commitment was made at Geneva. It would be disastrous if the administration committed itself to a treaty which the Senate then felt obliged to reject. It is for this reason that I believe the debate should not be deferred until a treaty is signed.

Perhaps I may yet vote for the treaty, if you can satisfy me that our national security would not be endangered if the Soviets, after agreeing to a treaty, continued to test in space and underground below the threshold of detection; that the development of the neutron bomb and the neutron antineutrino warhead would not give the Soviets a crucial military advantage over us; and that the test of detection and verification has truly advanced to the point where the treaty we are now discussing would constitute an adequate deterrent against Soviet cheating. In the light of all the information I have seen to date, however, I must say that I have the gravest misgivings on these scores.

I believe that our exchange of correspondence, if it has not succeeded in bringing us together, has at least served to give both of us a better understanding of our respective positions. It has also, I hope, served to give Congress and the American people a clearer insight into the basic issues.

Finally, I hope that the mutual respect which has characterized our exchange will help to discourage extremist statements on both sides by establishing that both sides are sharing the same values and goals, and that they differ sharply on the means to be pursued in achieving their common objectives.

With my thanks again for your cordial attention, and with every best wish,

Sincerely,

TOM DON

THE PARTY OF THE THIRD PARTY— THE GOVERNMENT

Mr. MUNDT. Mr. President, Federal Trade Commissioner Sigurd Anderson, formerly Governor of South Dakota, spent March 23 as a daylong guest of the Middletown, Ohio, Chamber of Commerce and Junior Chamber of Commerce. Speaking at a luncheon meeting, he made some highly informative observations entitled "And the Party of the Third Party, the Government," dealing with the part the Government plays in seeing that the rules of the game are respected in commercial life.

Mr. President, I ask unanimous consent that those remarks by Commissioner Anderson be printed in the Record.

There being no objection, the report was ordered to be printed in the Record as follows:

AND THE PARTY OF THE THIRD PARTY, THE GOVERNMENT

(By Sigurd Anderson)

Mr. President, distinguished guests, members, and guests of the Middletown Chamber of Commerce: It is a pleasure with you on this occasion. I feel that not only of your industrial prowess but the historical significance of the fact that Ohio has been properly named the "Land of Presidents." During the several years that I have driven across your State

President's stepping in, but that I don't know how good an idea it is. Our General Counsel has some doubts about it. There are two ways in which this declassification can take place. 1. perhaps the President has such authority, as broad interpretation of the Constitution. On this, we would probably have to get a ruling from the Attorney General, 2. If AEC and DOD disagreed on the declassification of a particular item, the Atomic Energy Act provides for the President's resolving the disagreement himself. Of course, in the present case, this is not applicable. I asked him what he thinks of the following approach.

We would write a letter to the JCAE saying that this particular phrase was technically at variance with the Classification Guide, but that Fisher had shown a copy of the letter to Bundy, Kaysen, Wiesner, Scoville and Haworth, and these people, without of course having in mind they were clearing it from a technical point of view as far as RD was concerned, had no objection. On that basis, Fisher sent the letter. Also, we would state our opinion of the impact of this disclosure; that it doesn't appear to us to be of great importance, and that, in our opinion, Fisher is not greatly to blame.

Bundy suggested another approach, as follows: We should say that representatives of Defense, State, CIA, AEC and the White House saw the letter but did not formally request declassification procedures, and, therefore, no such action was taken. In that sense, the document contains a statement which is at variance with the Classification Guide. However, the Commission has reviewed the matter and holds that the information is such that it was, in fact, appropriately made public, and, in this sense, it is the Classification Guide and not the letter that is out of line. I said we will look at this approach, which may involve DOD concurrence, but that, first, I want to look at the language before I pass on its feasibility.

I called Gilpatric regarding the exchange of letters between Adrian Fisher and Senator Dodd. After filling him in on the matter, I said that, in our response to the JCAE, we think we can identify the RD portion, refer to it as something of a technicality because some of us feel that it isn't very important if it is revealed that we are trying to produce enhanced radiation weapons. In fact, it is surprising to some that this hasn't been announced before. We would refer to the fact that Fisher did show this letter to representatives of DOD, the White House, CIA and AEC. Then we would say it is somewhat borderline or doubtful why this prohibition was in the Classification Guide in the first place and that we are removing it from the Guide, not because Fisher revealed it, but because it was there on rather tenuous grounds in the first place.

I said we would then need DOD concurrence. We hope to get our reply out to the JCAE tomorrow and hope that Jerry Johnson will get to work on it immediately. Gilpatric said he will go along with this course of action, for it seems sensible and proper to him. He doesn't feel there will be any difficulty clearing it in DOD. I then said that AEC and DOD have been working on a joint statement for release to the press on the results of our test series. We have come up with something that we think is about right: it says something, but not too much. The people in DOD have demurred. They have suggested a number of deletions, which brings it down to the point where we think it's barely worth issuing and can possibly be subject to ridicule in some quarters. We are working against a deadline because the Moss Committee is having hearings the week of April 22nd, and it will be to everyone's advantage to have it out before that time. I asked whether he or Jerry Johnson will look into it. Gilpatric said that just from what I told him, his instinct would be to go along with us, but he will look into it.

At 2:30 p.m. I received a phone call from Dr. Gustave Arlt of the Council of Graduate Schools. He said he had been delegated to ask me whether I can consider serving on a national commission to study the humanities. He said that in a way I

initiated such a program by my statement in the President's Science Report of 1960, in which I said that somebody should look into this. The commission is to be sponsored by the American Council of Learned Societies, Council of Graduate Schools and the United Chapters of Phi Beta Kappa and hopes to come up with a report on the present status of the humanities and some recommendations for improvement of the situation.

I said, when I was Chancellor at the University of California, I read Mumford Jones's book and got excited about the possibility of an Institute of Humanities at Berkeley, and we actually came up with a proposal, but we couldn't find any money. He said they had hoped for the expansion of the NSF to take in the humanities or the establishment of a parallel organization. I said I thought the latter would be better. They will get \$10,000 each from Rockefeller, Ford and Carnegie.

The chairman will be Barnaby Keeney, President of Brown University, and the commission will be composed of approximately 12 leaders from different segments of society, i.e., humanities, industry, fine arts, and science. The commission will probably not meet more often than three times during the year in Washington or New York. I told him that within the limitations of the schedule I now have, I will be glad to serve, although I suspect that attending the meetings will be a problem.

Arlt will have Keeney send me a listing of the people who will make up the commission. He will also send me a reprint of an article he wrote a few months ago and which was published in the Journal of Higher Education.

I received a phone call from Rickover with the distressing information that the nuclear submarine NSS Thresher, with some 120 people aboard, has been lost in some kind of accident.

Thursday, April 11, 1963 - Germantown

The furor continues over Fisher's letter to Senator Dodd with its technical security violation. Haworth (who is in California) called me and said he has talked with Jerry Wiesner. The more he and Jerry think about it, the more they think that Fisher had every reason to think there was no security problem. He said that Fisher actually had just wanted advice, and it was not a government position at all. He had asked this advice of three people--Wiesner, Brown and himself. Lee and Wiesner think they should take the blame. We are still working on the response to the JCAE.

At 10 a.m. I presided over Information Meeting 263 (notes attached).

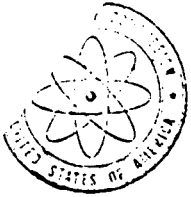
At 11 a.m. I presided over Commission Meeting 1923 (action summary attached).

Commissioners Wilson, Palfrey, Ramey and I, along with Ink, Brown and Wells, had lunch in the Commissioners' Dining Room with Ambassador John Tuthill (Euratom). We discussed the problem of assuring Euratom countries that the U.S. will commit itself to the long-term furnishing of nuclear fuels. We also discussed the problem of possible diversions of high enrichment U-235 to weapons (e.g., West Germany which has requested this for high temperature gas-cooled reactors).

Helen and I attended a dinner given by the Washington Chemical Society for the ACS medalists at the Naval Medical Center in Bethesda.

Friday, April 12, 1963 - D.C.

At 9:35 a.m. I presided over Information Meeting 264 (notes attached).



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

UNCL. BY D
NOV 86

COPY NO. 15
April 11, 1963

INFORMATION MEETING 263

10:10 a.m., Thursday, April 11, 1963, Chairman's Conference Room, A-457

1. SS(N) THRESHER
2. Letter to Joint Committee re Information in Mr. Adrian Fisher's Letter to Senator Dodd

The Commissioners agreed the letter should identify the sensitive information and inform the Joint Committee that copies had been sent to other officials. An appropriate declassification determination will be made and referenced in the letter which is to be prepared today for early transmittal. Mr. Ink reported that Earl Voss had telephoned last night regarding queries on the Voss article and that AEC staff had responded with "No Comment". (Marshall)

The Chairman requested copies of the ACDA letter and further information, if obtainable, on Congressman Westland's plans. (Brown)

3. Chairman's April 9 Meeting at the White House to Discuss Area Development Week

The Chairman reported that he had spoken briefly of the Commission's programs with the universities, his recent meeting with Governor Russell, and his recent discussions at Savannah River.

4. Letters to Messrs. Roddis and Chatenet re Nuclear Liability

The Chairman said he would sign the letters today. (Brown)

5. Chairman's Discussions with Chauncey Starr, Atomics International

The Chairman said that in their recent meeting he and Mr. Starr had discussed (a) coal industry and other interests which will oppose the nuclear power program this year, (b) possibility of discussions with Atomics International prior to the Commission's selection of the next prototype nuclear reactor, and (c) Chairman's oral response to Mr. Starr's February 15 letter re the SNAP 4 program.

6. AEC Contract with NUMEC, Apollo, Pennsylvania

The Chairman mentioned Mr. Tabor's conversation with him regarding any curtailment of contracts and requested a review of the matter. (Vinciguerra)

7. Senator Dirksen's Call re Allied Chemical Company Operations

The Chairman said Senator Dirksen had telephoned him re the AEC's contract with Allied Chemical. He requested a review of the matter prior to a further discussion with the Senator. The General Manager said he planned to have a paper before the Commission at an early date.

✓ 8. Statement on Results of U.S. Nuclear Test Series

W. Wilson
✓
12/2
The Chairman said he had talked to Secretary Gilpatric regarding DOD's position on inclusion of certain information and to urge early review and issuance of the statement. The Commissioners suggested the DOD also be queried re inclusion of additional information and the Chairman said the status of (a) a statement on results of U.S. underground tests and (b) a statement of results of U.S.S.R. nuclear tests should be determined. (Betts/Brown) *this is letter to Bundy dated & attached Apr 15/46*

9. Joint AEC-DOD Letter to the President re Weapons Development

The Chairman noted copies of the draft have been circulated to the Commissioners and the matter will be discussed at an early date. (Brown/Secy)

10. Attendance at Meeting of American Public Power Association, Cleveland, April 30 - May 2

The Chairman suggested Dr. Wilson or Mr. Palfrey consider attending.

11. AECL Request for Enriched Uranium for Candu Reactor

The Commissioners had no objection to the General Manager's proposal.

12. Attendance at Opening of European AEC Exhibit in Vienna, May 24

Dr. Wilson said he would consider attending.

PRESENT

Dr. Seaborg
Dr. Wilson
Mr. Ramey
Mr. Palfrey
General Luedecke
Mr. Ink
Mr. Brown
Mr. Hennessey
Mr. McCool

DISTRIBUTION

Commissioners
General Manager
General Counsel
Secretary
W. B. McCool
Secretary

UNITED STATES GOVERNMENT

Memorandum

UNCL. BY DOE
NOV 86

TO : A. R. Lucdecke, General Manager

DATE: April 13, 1963

Approved A.R. Lucdecke

FROM : W. B. McCool, Secretary *W. B. McCool*

Date 4/11/63
A. R. Lucdecke

SUBJECT: ACTION SUMMARY OF MEETING 1923, THURSDAY, APRIL 11, 1963, 11:10 A.M.,
ROOM A-410, GERMANTOWN, MARYLAND

SECY:JFG

Commission Business

1. Minutes of Meetings 1913 and 1920

Approved, as revised, subject to comments from Commissioner Haworth.

2. Briefing on Army Reactors Program

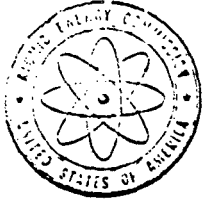
The Commission requested an opportunity to review the proposed correspondence on solicitation of proposals for Second Generation Portable Nuclear Power Plant Project. (Pittman)

Mr. Ink noted staff would provide Commissioner Ramey information on possible methods for coordinating various Service reactor requirements studies. (Pittman)

3. Briefing on Status of Saline Water Study

To be rescheduled later in the day. (Secretary)

cc: Commissioners



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

UNCL. BY DOC
NOV 86

COPY NO. 15

April 12, 1963

INFORMATION MEETING 264

9:35 a.m., Friday, April 12, 1963 - Chairman's Conference Room, D. C. Office

1. Memorandum from Ed Welsh, National Space Council, Enclosing a Copy of The Vice President's Memorandum to the President re Policies on the Space Program *attached*

Noted.

2. Commissioners' Meeting Today with the ACRS

3. Proposed Response^{4/22} to Secretary Gilpatric's April 2^{ins/Ro file} Letter re Joint Determination on Transmittal of Information

The Chairman requested revision of the draft to indicate no objection, but to request notification on any proposal to transmit information on new developments. (GC/Betts)

4. Proposed Letter to Secretary of Defense re Transmittal of NDDY Information to SACEUR. SACLANT

The Chairman noted the draft will be circulated for later discussion, (Henderson)

5. Commissioners' Luncheon Meeting with Representatives of the Labor Management Advisory Committee

The Chairman suggested, and the Commissioners agreed it would be desirable to schedule an informal luncheon meeting. (Smith/Seey)

6. Nuclear Fuel Services Contract

In response to the Chairman's query re the status of the matter, Mr. Ink said the contract is in final review, and that he will discuss with Mr. Price the regulatory considerations.

In response to Dr. Wilson's request, Mr. Ink said he would discuss the matter with Mr. Schuldt, EOB, and the Commissioners suggested that a Commissioner accompany staff when the proposal is discussed with the Joint Committee. (Ink/Vinciguerra)

7. Commissioners' Executive Meeting with the Joint Committee

The Chairman requested a proposed informal agenda and date for the joint meeting. (Ink/Henderson)

8. High Energy Physics Panel Recommendations

The Chairman said Mr. Schuldt, BOB, had telephoned him to indicate his interest in the timing on the Panel recommendations.

9. Public Statement on Results of U.S. Nuclear Tests

Mr. Ink reported the proposed statement has been cleared by Gerald Johnson and is now in Assistant Secretary Sylvester's office for review.

10. Public Statement on Results of U.S.S.R. Nuclear Tests

The Chairman suggested Dr. Haworth discuss with Dr. Wiesner appropriate action.

11. Statement on Results of U.S. Underground Tests

The Chairman suggested Dr. Haworth discuss this matter with Dr. Wiesner and mention the possible effect of such a statement on the negotiations in Geneva.

12. Mr. Feld's (M.I.T.) Request for Unclassified Information on U.S.S.R. Nuclear Tests

Dr. Haworth discussed briefly Mr. Feld's request for unclassified information for use in a group study of fallout. The Commissioners agreed the material should be provided.

13. Letter to Dr. Rabi re Third Geneva Conference (1964)

The Commissioners requested revision of the draft response to indicate that the Commission supports Dr. Eklund's position in principle and refer appropriately to funding restrictions on the AEC. The Draft is to be reviewed with Dr. Haworth. (Gardner)

14. Mr. Wells' Memorandum of March 26 re Availability of Fossil Fuels to Pakistan

Dr. Wilson commented on the undesirability of the Commission supporting construction of a nuclear reactor in Pakistan in light of the information in Mr. Wells' memorandum. The Commissioners requested additional information, including confirmation of the position of the Agency for International Development and recommendations on a Commission position. (Wells)

13. D. C. Office Elevator Service

16. Planning for the DRIBBLE and SALMON Events in Mississippi

Mr. Ink reported that the site surveys had not yet been completed, and that if and when the events are authorized, plans will include news media procedures similar to those used by the GNOME event.

17. Reduction of Employee Work Force by Atomics International

Mr. Ink reported that Atomics International plans to reduce its work force by some 270 persons (60 people at NRTS) in the next few months. The matter will be mentioned to the White House, but no AEC announcement is planned.

18. April 11 Letter from Dr. Gerald Johnson re Determination on Information in Fisher-Dodd Letters

19. Proposed Letter to Joint Committee re Fisher-Dodd exchange of letters

The Commissioners discussed Mr. Palfrey's draft and requested revisions for early review. (Ink)

20. Agenda for the Week of April 15, 1963

Approved, as revised.

PRESENT

Dr. Seaborg	Mr. Ink
Dr. Wilson	Mr. Hennessey
Dr. Haworth	Mr. Henderson
Mr. Palfrey	Mr. McCool

DISTRIBUTION

Commissioners
General Manager
General Counsel
Secretary

W. B. McCool
Secretary

We received a letter from Gilpatric protesting our plan to send a joint letter to the President asking for a policy decision on whether to investigate the feasibility of building big bombs and insisting that we send a letter to the President asking for approval to build big bombs deliverable only by B-52s.

The Commission continued to work on a response to the JCAE regarding security violations in the Fisher-Dodd correspondence.

At 11:30 a.m. I was interviewed by Carol Higgins and Myles Johnson (Fortune magazine), who is doing a story for its July issue on civilian nuclear power. I mentioned the importance of the Commission's attempts to get nuclear power into the private domain, such as private ownership, toll enrichment, NFS plant, etc.

The Commission met with the ACRS. They are having difficulty clearing the NS Savannah for European port visits which the Maritime Commission has already arranged.

Lynne left for a vacation in South Carolina with her friend Sally Doyle and her parents.

Saturday, April 13, 1963 - D.C.

I worked in the office all day. We worked on a letter to Conway (which will be signed by Luedecke and encloses the Luedecke-Conway letter for comment) explaining the basis for Fisher's technical security violation and on a letter to the President which explains that Senator Dodd also violated security.

The ACRS worked all day on a letter regarding the Savannah. They are insisting on going back to old standards (as against new ones suggested by the AEC) for exclusion areas because the efficiency of filters for I-131 has not been tested. They also insist on the presence of auxiliary power or tugs on 30-minute notice, which appears to give clearance to the European trip.

I finished reading the galley proof on Man-Made Transuranium Elements.

Sunday, April 14, 1963

I read journals.

Later, I received a call from Bundy about the Luedecke to Conway letter. He wants more definite exoneration of Fisher, but this can't be done because it is not consistent with the facts. We will clarify the letter more.

Helen, Pete, Dave, Eric, Dianne and I visited with the Robinsons, Aunt Esther, the Bill Walshes (cousins visiting from Michigan) at Montrose Park.

I put the finishing touches on my University of Kentucky (April 26th) and University of Massachusetts (April 29th) speeches and worked on my Ames (May 3rd) speech.

Monday, April 15, 1963 - D.C.

I attended a meeting of PSAC where we discussed: 1. a possible project for a central undergraduate support center, 2. the disagreement between AEC and DOD over the approach to the President for a decision on a large weapon, 3. the disagreement between AEC and DOD, now resolved in AEC's favor, over the public release on the DOMINIC results, 4. the June 1, 1964, date for atmospheric testing,

5. U.S.-USSR space science discussions, 6. a Washington-Moscow hot line (teletype preferred over telephone), 7. my forthcoming trip to Russia, 8. the problem of Plowshare in a test ban treaty and 9. government support of research.

I had lunch with PSAC members at the White House Mess.

I sent a copy of our release on the DOMINIC results (copy attached) to Bundy, Rusk and Foster for concurrence.

Today I invited Al Crewe and Jerry Tape to accompany me on the Russian trip. I invited Manson Benedict and Al Zucker last Friday. Earlier, I invited Al Ghiorso, Arnie Fritsch, Al Luedecke, Algie Wells and Cecil King.

I made plans with Fritsch for the Russian trip, such as places to visit, people to see, etc.

Tuesday, April 16, 1963 - D.C.

The letter to Conway, signed by Luedecke, regarding the Fisher-Dodd security violations, was finally polished and sent today (copy attached).

At 9:30 a.m. Foster called regarding the letter which I sent to Bundy yesterday and the proposed public release on DOMINIC, and called my attention to several sentences that he would like Frank Long to discuss with Haworth. One is where we talk about tests conducted of designs which could lead to an entire new class of U.S. weapons. Also, we talk about being able to get a yield of twice that which is now achieved. He said that (off the record) they had talked about beginning to reach diminishing returns in their testimony. I told Foster I think Long should talk with Haworth and take a further look.

At 9:40 a.m. I presided over Information Meeting 265 (action summary attached). We discussed Palfrey's memorandum on the multilateral force document and a proposed letter to Bundy about U.K cooperation on underground tests (copies attached).

At 10 a.m. Kaysen called regarding our previous conversation on seniority of Commissioners and said it turns out there is no legal precedent for determining this. (Ramey is insisting that he should have seniority over Palfrey--they were both appointed at the same time.) It is clear to him and the best legal talents in the Government, that I, as Chairman of the Commission, have the power to designate the one in line of succession. Other than that, there is no guidance. He did suggest that I might use the longer term appointment as the basis for establishing seniority and pointed out there is no legal basis for establishing it. I asked if he thinks this is something the President should do and he replied that it is something within my power.

At 12:15 p.m. I called Ambassador Dobrynin to inform him we are going to issue a press release regarding my trip to the USSR (copy attached).

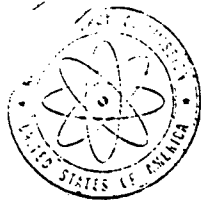
I wrote to Gilpatric giving technical data on a big bomb deliverable only by a B-52 for which DOD wants AEC to join in requesting presidential approval--but saying that the AEC prefers to place the entire big bomb problem before the President for his determination.

I had lunch with Dan Wilkes, Arnie Fritsch and Vic Schmidt at the Roger Smith Hotel.

Wilkes and I worked on my Gustavus Adolphus talk to be given on May 4th at the Roger Smith Hotel.

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

OG FILE WIT



APR 15 1963

UNCL. BY DOE
NOV 86

Dear Mr. Bundy:

Attached for your consideration is an unclassified report on the results of the Pacific series of nuclear weapons tests conducted last year in the Pacific. This report has been prepared by the Atomic Energy Commission and is concurred in by the Department of Defense. It is proposed for release as a joint statement by the two agencies.

We believe that there are strong reasons for the public issuance of the attached report. Some information always has been released following the conclusion of a test series, although the amount of information made public and the method of its release have varied. Historically, at the conclusion of each U. S. test series, a very brief statement has been issued jointly by the Commission and the Department of Defense on the results of the series. These initial statements generally have been followed by the later release of more detailed information, principally through publication in the several editions of the book, "The Effects of Nuclear Weapons." The last edition of this book, containing 730 pages, was published in 1960. Information also has been released through such means as films reporting on the Greenhouse series in 1951 and the Ivy series in 1952, news conferences after the 1948 and 1951 series, and a report on the 1958 high-altitude tests in the Pacific, issued by the Commission and the Department of Defense in 1959.

We believe that the present circumstances call for a more comprehensive initial report than those issued after most of the previous test series. In his address of March 2, 1962 to the Nation, the President explained in some detail the factors which required the U. S. to resume nuclear testing in the atmosphere, and outlined the areas in which tests were deemed necessary to insure adequate defense for the free world. In view of the President's frank discussion of the need for the tests, it seems to us logical that the public be informed of the progress made, within the limitations imposed by security considerations. The absence of an official report would leave uncertainty as to the success of the testing program and the adequacy of our nuclear deterrent, especially in view of the technological gains ascribed publicly to the Soviet Union as a result of its 1961 and 1962 series.

As you may recall, after receipt of an inquiry from the Washington Post in January, we discussed with the White House staff the advisability of considering that a report on the Pacific series would be made public. At that time, it was agreed that we would respond to the Post that the Administration planned to issue a public statement on the results of the test series. The Post reported this in its issue of January 31, 1963.

Mr. McGeorge Bundy

- 2 -

In considering the attached report, the Commission has determined that several items of information which previously had been classified could be published without undue risk to the common defense and security. The Department of Defense has concurred in this judgment. The declassified items are the following:

- a. The fact that tests were conducted of designs which could lead to an entirely new class of U. S. weapons which could have relatively low weights and extremely high yields, with the fission contribution decreased to only a few percent of the total yield. (This new class of weapons involves only a reduction in weight for a given yield, and does not involve other design characteristics.)
- b. The fact that the yield-to-weight ratios of the new class of weapons would be more than twice that which can now be achieved in the design of very high yield weapons using previously developed concepts.
- c. The fact that one of the proof tests of a complete nuclear weapons system involved the ALBEC (Anti-Submarine Rocket) weapons system.

As you know, considerable effort is being exerted by newsmen to obtain authoritative information on the results of the Tominic series. We also have reason to believe that the policy on release of information concerning weapons test activities will be discussed at our appearance before the House Committee during the week of April 22nd. It is our view that the release of an official statement within the next few days will help to keep the matter in proper perspective. We are consulting with the State Department and the Arms Control and Disarmament Agency to obtain their views on the timing of the report's release.

Sincerely yours,

(Signed) Glenn T. Seaborg

Chairman

Attachment

Mr. McGeorge Bundy
Special Assistant to the President
for National Security Affairs
The White House

SUMMARY OF RESULTS OF THE 1962 ATMOSPHERIC NUCLEAR TEST SERIES

UNCL. BY DOE
NOV 86

On March 2, 1962, The President authorized the conduct of an atmospheric nuclear test series by the United States. The objectives of this series, which was called Operation DOMINIC, and its importance to the National security were described by The President in a report to the Nation on that date. The following report by the Atomic Energy Commission and the Department of Defense is an endeavor to give the American people such information as can be provided within the limits of security and classification on specific tests that were undertaken during the test series and the results attained.

The test series which started on April 25, 1962, was conducted mainly in the Pacific Ocean area. It included the firing of 29 nuclear devices dropped from aircraft in the vicinity of Christmas and Johnston Islands and 5 detonations of nuclear devices carried to high altitudes by missiles launched from Johnston Island. Two nuclear weapons systems tests were also involved -- one in the Christmas Island area and one in the Eastern Pacific. These tests were conducted by Joint Task Force Eight which was established by the Department of Defense and the Atomic Energy Commission. At the peak of its activity the Joint Task Force included a force of over 19,000 men. In addition to the Pacific tests, four small devices for military effects tests were detonated near the surface of the earth at the Nevada Test Site.

CLASSIFICATION CANCELLED
 WITH DELETIONS
 BY AUTHORITY OF DOE/OC

REVIEWED BY *[Signature]* DATE *2/16/81*
[Signature] DATE *7/16/86*

THE TEST PROGRAM

Types of Tests - Weapons Development, Verification, Effects and

System Tests - The types of tests carried out during Operation DOMINIC can be divided into four groups: first, weapons development tests which consisted of the firing of experimental devices designed to explore new concepts of nuclear weapons technology; second, tests to verify designs of stockpile weapons, designs which were extrapolated from technology tested in previous U. S. test series; third, tests relating primarily to military effects of nuclear detonations; and fourth, the testing of entire nuclear weapons systems, including delivery vehicles, missile, and nuclear warhead. The test series as a whole was highly successful.

The Weapons Development Tests - About twenty devices were detonated for weapons development purposes. In these tests, progress was made in nuclear weapons technology which has resulted in militarily significant increases in nuclear yield per pound of weight, more efficient use of nuclear materials, reduction of the fission component of total yield, increased safety and improved reliability of stockpiled weapons.

The DOMINIC weapons development tests gave the AEC and DoD valuable data for the design of future bombs and warheads for U. S. nuclear weapons systems. Many of these nuclear weapons will be lighter weight, while still providing a substantial yield. New warheads will make it possible to maintain adequate nuclear yield in U. S. strategic missile systems while reserving payload weight for such things as decoys to improve penetration capabilities and improvements to increase the

invulnerability of the warheads themselves.

Substantial gains were achieved by the United States in the low megaton range of nuclear weapons technology.

Although the United States did not test any nuclear devices of very high yields, tests were conducted of designs which could lead to an entire new class of U. S. weapons. These new weapons could have relatively low weights and extremely high yields, with the fission contribution decreased to only a few per cent of the total yield, thus greatly reducing the radioactive fallout from such weapons. The yield to weight ratios of the new class of weapons would be more than twice that which can now be achieved in the design of very high yield weapons using previously developed concepts.

The tests provided information which will increase the shelf life of nuclear weapons, even after storage for extended periods of time. Safety aspects were also checked and verified.

Very importantly, the development test program produced data that verified certain theoretical concepts. In these cases, the U. S. theoretical concepts for weapons designs had previously been pushed so far that no further significant advances could have been made without an actual full-scale test to verify the concept. Some of the new theoretical concepts gave results much better than anticipated, and indeed the verification by tests was in some measure a "surprise" to the weapon

designers. Among the DOMINIC development tests were some "failures" occurring in cases where designs involved a substantial extension of known technology. These demonstrated that the test program was progressive and advanced, and even in the "failures" valuable data were obtained on which to base further designs. Overall, the verification of theoretical concepts, the "surprises," and the "failures" have provided a stimulus and a new basis upon which more modern nuclear weapons designs can be developed.

The Verification Tests - Another valuable result of the DOMINIC test series was the proof testing of several of the stockpile bombs and warheads which had been placed into manufacture during the period of the test moratorium. These weapons had been designed after the HARDTACK test series which ended in October 1958. The designs had extrapolated to the maximum extent possible the nuclear weapons technology developed during HARDTACK and previous tests. Each of the nuclear weapons so tested functioned satisfactorily.

The Effects Tests - A very important group of tests carried out during Operation DOMINIC related to effects; that is, tests primarily aimed at studying what nuclear weapons will do to military equipment and communications.

The high altitude effects tests varied in yield from the [REDACTED] [REDACTED] range and were a follow-on to high altitude tests conducted in 1958 prior to the test moratorium. A primary difference between the previous tests and the DOMINIC high altitude tests was that in the

latter case the technical programs for investigating the effects were much more sophisticated. The earlier high altitude tests were exploratory in nature and provided general information. They were the basis for the necessary instrumentation of the DOMINIC high altitude series which required more precise measurements. Further, the earlier high altitude tests supplied data from which the effects of nuclear explosions on advanced and future weapons systems could be anticipated.

The DOMINIC tests investigated the ability of our intercontinental missile systems, our early warning systems and command and control systems to operate in a nuclear environment. Such knowledge is essential to our planning and for designing weapons systems which employ nuclear devices or which must operate in a nuclear environment. It is also the basis for understanding undesirable side effects which might result from certain types of nuclear weapon employment, for improving civil defense measures, and for providing adequate command and control in war time.

One purpose of the DOMINIC tests at the Nevada Test Site was to investigate the effects of a surface burst of a nuclear device upon the functioning of electronic communications systems. In addition, cratering effects of surface bursts were investigated, as well as response of underground structures. Measurements were made of the effects of a nuclear detonation on various components of atomic weapons systems. U. S. Army troop maneuvers were conducted in conjunction with the

firing of a nuclear device.

The effects tests provided a great amount of information that is expected to result in substantial improvements to the military defensive capabilities of the United States.

The Systems Proof Tests - Proof tests of two complete nuclear weapons systems, the POLARIS Ballistic Missile System and the ASROC (Anti-Submarine Rocket) Weapons System, were carried out. The POLARIS missile, fired from a nuclear submarine under the surface of the ocean, detonated over the intended target and with the expected yield. The ASROC was fired from a combat vessel, and the nuclear warhead detonated under water at the intended target and with the expected yield, resulting in a verification of operational procedures.

THE DIAGNOSTIC PROGRAM

During the DOMINIC test series the AEC and the DoD were able to free themselves, to a greater extent than ever before, from land based instrumentation by developing an airborne diagnostic capability to measure atmospheric detonations. The airborne capability was developed as a back-up to the hurriedly deployed land based instrumentation system at Christmas Island, but near the end of the program it provided substantially all the information gathered. It was demonstrated that, when required, many diagnostic data can be reliably obtained solely with airborne diagnostic techniques.

CONCLUSION

The 1962 atmospheric test series will enable the U. S. to continue its progress toward maintaining in its nuclear stockpile the most modern, most reliable and most versatile nuclear weapons. The tests also provided important information which will improve the ability of the U. S. and the Free World to defend itself against possible attack. As The President stated on March 2, 1962, "Only through such strength can we be certain of deterring a nuclear strike, or an over-whelming ground attack, upon our forces and allies. Only through such strength can we in the Free World -- should that deterrent fail -- face the tragedy of another war with any hope of survival."

APR 16 1963

901841

Mr. John T. Conway
Executive Director
Joint Committee on Atomic Energy
Congress of the United States

UNCL. BY DOE
NOV 86

Dear Mr. Conway:

As you requested, the exchange of correspondence between Mr. Adrian Fisher and Senator Dodd, which appears in the Congressional Record for April 9, 1963, on pages 5640 through 5644, has been reviewed.

This review has led us to reach the following three conclusions which we will then amplify in order: (1) Mr. Fisher's proposed letter to Sen. Dodd was distributed to representatives of the AEC and of other agencies on the assumption that it would be reviewed for clearance on security as well as on policy matters. Because of a misunderstanding, Commissioner Haworth, and presumably others who received the letter and who expressed no objections to its being sent, were not aware of this assumption and did not explicitly review the letter from the point of view of classification. (2) In the course of his letter to Senator Dodd, Mr. Fisher equated weapons [REDACTED] to enhanced radiation weapons. In so doing, Mr. Fisher inadvertently referred to a weapon program which has been classified Secret-Restricted Data under the Classification Guide. Responding observations of Senator Dodd were also so classified. (3) The Commission has concluded that the government's interest in a program of enhanced radiation weapons was in all likelihood public knowledge prior to the Fisher-Dodd correspondence. And in view of this additional public evidence, the Commission, with the concurrence of the Department of Defense, is now considering a change in one subsection of the Classification Guide. This change would declassify the fact of the government's interest in a program to determine the characteristics of enhanced radiation weapons. Classification of additional information on the subject would be maintained.

1. The Commission noted in its review of this matter that Mr. Fisher had sent a copy of his proposed letter, marked "Confidential", to the White House under cover of a Confidential transmittal memorandum bearing the notation "declassify following clearance". The letter

CLASSIFICATION CANCELLED
WITH DELETIONS
BY AUTHORITY OF DOE/OC
REVIEWED BY *[Signature]* DATE *4/1/66*
[Signature]

2 - Mr. J. T. Conway

included a request that it be published in the record. The transmittal memorandum stated in its entirety, "Attached is a copy of a letter to Senator Dodd which I propose to send after obtaining the necessary clearance." Carbon copies of the whole were sent to Commissioner Haworth and to representatives of other agencies of the Executive Branch. In a subsequent telephone conversation with Mr. Fisher, Commissioner Haworth raised no objections to the contents of the letter. We understand that no objections were raised by any of the others. The Commission thus concludes that Mr. Fisher had a reasonable basis to believe that no security problems existed, having received no security objections from any of those to whom he had sent copies of the proposed letter. Commissioner Haworth states that he would have noticed and questioned any obvious security problem but that he did not attempt to analyze the document from the classification point of view.

2. One statement in Fisher's letter raises a question of classification. This was his reference to "an enhanced radiation weapon of a type now available". To understand Mr. Fisher's use of this phrase, it is important to understand the context of his statement. He was talking about the Government's position that a test ban agreement would be, on balance, in the interest of our national security. This discussion included a consideration of its effect on the development of an AICBM and a pure fusion weapon.

With respect to a pure fusion weapon, Mr. Fisher pointed out (1) its development was by no means certain, and (2) that we have already made significant advances in tactical weapons ~~_____~~ ETED

DE- ~~_____~~ He then said there was a real question as to how much more useful a pure fusion weapon would be than weapons already available, in terms of risk of fallout, damage to property, and risk of escalation. It was in connection with the risk of escalation that he questioned whether there would be much difference between the risk in response to the tactical use of "pure fusion weapons or an enhanced radiation weapon of a type now available."

We understand from Mr. Fisher, and there are supporting indications from the rest of the paragraph, that he was still referring to weapons ~~_____~~ which he equated to weapons having "enhanced radiation" ~~DELETED~~ fact that Mr. Fisher used the phrase "weapon of a type now available" supports his point that he was not referring to small weapons with maximized neutron flux, which have only recently been successfully tested and have not yet been weaponized.

OFFICE DIARY

GLENN T. SEABORG

Chr USAEC, 1961-72

FOLDER-PAGE 28107

3 - Mr. J. T. Conway

The interest of the U.S. in building "clean" weapons [REDACTED] ~~DELETED~~
[REDACTED] has been publicly stated and is unclassified. However, under the current classification rules the fact that the U.S. is "interested in or developing a weapon for maximizing the emerged flux of neutrons" is classified as Secret-Restricted Data. The phrase "enhanced radiation weapon" is a technical description of such a weapon. Therefore, under the current classification rules, Mr. Fisher's statement and Senator Dodd's responding references to the "neutron bomb" and to the views of the scientists who have been concerned with its development are classified.

3. However, in view of the many references that have appeared in the public press from public officials and from columnists quoting "informed sources", we believe that in all likelihood the information which appeared in Mr. Fisher's letter was publicly known prior to the Fisher-Dodd correspondence. Therefore, in view of the additional evidence of the Fisher-Dodd correspondence, we now intend, with DOD concurrences, to consider revision of topic 1.5 to declassify the fact of the interest of the AEC in pursuing a program to determine the characteristics of an enhanced radiation weapon. Any additional information concerning the program would, of course, remain classified.

The two newspaper columns, one by Mr. Voss which appeared in the Evening Star for April 9, and the other by Mr. Simon which appeared in the Washington Post for April 10, have both been reviewed and it has been concluded that they contain no Restricted Data going beyond that which appeared in the exchange of correspondence between Mr. Fisher and Senator Dodd.

Sincerely yours,

SIGNED, A. R. LUEDECKE

General Manager

*LH cleared w/all
Commissioners
L 4/15*



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

Document consists of 4 pages
No. 15 of 17 copies, Series 12

COPY NO. 15
April 16, 1963

INFORMATION MEETING 265

ENCL. BY DOE
NOV 86

9:40 a.m., Tuesday, April 16, 1963 - Chairman's Conference Room, D. C. Office

1. Letter to the Joint Committee re Exchange of Letters between Senator Dodd and Mr. Adrian Fisher

The Chairman said the letter would hopefully be transmitted today and he will telephone Senator Dodd and suggest that Mr. Palfrey and staff are available to discuss the matter with the Senator, if he so desires. (Drown)

2. Proposed Announcement re Results of U.S. Nuclear Tests

The Commissioners discussed the comments from William Foster and Dr. Wiesner and others. The Commission:

Determined that the following items of information may be published without undue risk to the common defense and security:

- a. The fact that tests were conducted of designs which could lead to an entirely new class of U.S. weapons which could have relatively low weights and extremely high yields, with the fission contribution decreased to only a few percent of the total yield;
- b. The fact that the yield-to-weight ratios of the new class of weapons would be more than twice that which can now be achieved in the design of very high yield weapons using previously developed concepts; and,
- c. The fact that one of the proof tests of a complete nuclear weapons system involved the ASROC (Anti-Submarine Rocket) weapons system. (Marshall)

3. Proposed Letters to Mr. Bundy and Sir Roger Makins re U.K. Cooperation on Underground Tests

Makins the not send you reply from Bundy. attached.

The Chairman requested that the letter to Mr. Bundy be revised and prepared for transmittal prior to the letter to Sir Roger.

4. Lawrence Awards Ceremony Arrangements

See Appendix

5. Proposed Letter to Mr. Bundy re Sale of Sergeant and Pershing Missiles

The letter is to be revised to reflect the Commission's thinking as to why NASM 197 might apply.

In response to Secretary Gilpatric's request for determination on the matter today, the Commission approved the determination subject to the inclusion of the above-mentioned reference in the letter and the usual requirement for appropriate security surveys, etc. (Betts/Brown)

6. April 9¹⁰ Letter from Secretary Gilpatric re Determination on Dispersal to NATO Forces

The Commissioners indicated agreement in principle and requested early staff action on the determination. (Betts)

7. April 10 Letter from Secretary Gilpatric re Weapons Production

The Chairman requested preparation of an early reply to Secretary Gilpatric to be reviewed by Mr. Ramey. (Betts)

8. Secretary Gilpatric's Letter to Mr. Bundy re Cooperation with Canada

The Chairman discussed briefly the reference in the Gilpatric letter to Mr. Bundy regarding the Commission's position on the application of NASM 197. Messrs. Palfrey and Brown are to prepare a brief letter to Mr. Bundy. (Brown)

*Went
to see
GTS
do not include*

9. Proposed Letter to Mr. Bundy re Transfer of Highly Enriched Fuel to German Peach Bottom Reactor (See the General Manager's Memorandum of April 12)

The Chairman requested preparation of an annex to General Betts' study of March 27 (see LXI-655i) and appropriate revision of the letter to Mr. Bundy. Additionally, Mr. Ramey suggested, and the Commissioners agreed, that in Commission consideration of policies re transfer of special nuclear material to other countries, the right to audit (inspect) be reasserted in the exchange of letters or documents. (Walls/GC/Betts)

10. Press Release re Chairman's Forthcoming Trip to the U.S.S.R.

The Chairman requested early release and said he will call Ambassador Dobrynin today. (Brown)

11. Meeting of the Principals, Wednesday at Four O'Clock

12. Appropriations Hearings Scheduled for June 6

13. Letter to the Department of Defense re Weapons Development

The Chairman requested revision of the letter to indicate that the Commission has no plans to proceed pending a Presidential decision and to state that the Commission will comment later on Secretary Gilpatric's letter of April 10 on this matter. (Zetts)

14. Mr. Ramey's April 15 Memorandum with Comments on AEC 181/101 Preferential Consideration to Selection of Contractors Having Commercial Atomic Energy Programs, and AEC 181/102 - Extension of Operating and On-Site Service-Type Contracts

The Commissioners discussed briefly the proposed revised criteria and Dr. Wilson said he would provide a memorandum of his views. Additionally, a memorandum is to be circulated on the contributions of the Du Pont Company to the private civilian atomic energy program. (Vinciguerra)

15. Information Meeting 9:30 a.m., Thursday, Germantown

To be scheduled. (Secy.)

✓ 16. Mr. Palfrey's Memorandum re Multilateral Force Document

Mr. Palfrey said he would circulate a memorandum to the Commissioners and hoped to discuss the matter on Thursday.

17. Letter of August 6 from Mr. Bokum re Atomic Energy Industry

Dr. Wilson noted the query to him during the 202 Hearings regarding the statement and asked for a report on the matter. (Tremmel)

18. Proposed Letter to Lorne Gray, AECL, re Heavy Water Production

Dr. Wilson discussed the proposed letter to Mr. Gray and the Commissioners agreed it should be sent with an added reference to the desirability of discussion with Mr. Gray of Canada's requirements for heavy water.

19. Attendance at American Public Power Association, Cleveland, April 30 - May 2

Mr. Palfrey said he would check his calendar.

20. Sale of Neutron Sources to France

Mr. Ramey discussed briefly the preliminary report he had received as a result of his discussion at the Pinellas Plant recently, and the General Manager said he would review the matter. (Marshall)

21. AEC 785/84 - Proposed United States Position on IAEA Convention on Civil Liability for Nuclear Damage

To be scheduled for Commission consideration on Friday morning. (Secy)

22. Connecticut Yankee Hearing Before the SEC, April 22

The Commissioners had no objection to the General Manager's proposal that Mr. Webster be allowed to discuss the proposed basis of cooperation with the Commission with the understanding that it has not been considered by the Commission or the Joint Committee. The General Manager said he would inform the Joint Committee prior to the hearing.

23. Department of Agriculture Proposal for Exchange of Wheat for South African Uranium

The Chairman requested circulation of a memorandum for consideration on Thursday. (GM/Secy)

24. AEC Representation at IAEA Symposium on Exponential and Critical Experiments, Amsterdam, September 2 - 6, 1963

The General Manager said he would approve a maximum of ten.

25. Additional Scope of Contract with Phillips Petroleum, NRTS, Idaho

The Commissioners had no objection to the General Manager's proposal.

* * * * *

26. Atomic Safety and Licensing Board Members for the N.S.SAVANNAH Hearing

The Commission approved Mr. Price's recommendation that Mr. Samuel Jensch, Dr. Lawrence Quarles, and Mr. Hugh Paxton serve as members of the Board. Mr. Price said the hearing should be scheduled about May 14 and that the staff will discuss with the Commission soon the decision on port criteria and an announcement of the hearing. (Price/Secy)

27. ACRS Letter re Proposed Operations of the N.S.SAVANNAH

PRESENT

DISTRIBUTION

Dr. Seaborg	General Luedecke	Commissioners
Dr. Wilson	Mr. Ink	General Manager
Mr. Ramey	Mr. Brown	General Counsel
Mr. Palfrey	Mr. Ferguson	Secretary
	Mr. Price*	
	Mr. McCool	

W. B. McCool
Secretary

*Partial Attendance



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

DC FILE

APR 16 1963

ENCL. BY DOE
NOV 86

Dear Mac:

I would like to suggest to Sir Roger Makins, the Chairman of the United Kingdom Atomic Energy Authority, that the Authority consider joining with us in conducting and financing a group of underground nuclear experimental shots in Nevada for the purpose of obtaining a better understanding of the phenomenon of gas mixing in boosted weapons. To obtain the information would require from three to six experiments and we are proposing that the United Kingdom sponsor one or more. A copy of my letter to Sir Roger Makins is enclosed.

A US/UK Joint Working Group on mixing has studied the results of past nuclear tests and concluded that it is necessary to further study the phenomenon of mixing in boosted weapons. This matter has been reviewed by our weapons laboratories and it is now proposed that a group of three to six underground tests be detonated to obtain necessary information. The Los Alamos Scientific Laboratory is planning to conduct two of the recommended experiments as part of its tests at Nevada during the next fiscal year.

Because the United Kingdom will share in the information obtained and since United States funds for conducting tests are limited, I would like to suggest to Sir Roger that the Authority might like to join in sponsoring and financing one or more tests in the series. It is estimated that each shot will cost about one million dollars.

The administrative arrangements are expected to be similar to those used in the two British tests previously conducted in Nevada. The Department of State has informed us that they have no objections to the above proposal.

Sincerely,

(Signed) Glenn T. Seaborg

Chairman

Honorable McGeorge Bundy
Special Assistant to the President
for National Security Affairs
The White House

Enclosure

Reply attached

Carlin 7/16/86

THE WHITE HOUSE
WASHINGTON

April 30, 1963

UNCL. BY DOE
NOV 86

JS 5/1/63

Dear Glenn:

There is no objection to your suggesting to Sir Roger Makins that the United Kingdom Atomic Energy Authority join with the Atomic Energy Commission in a group of underground nuclear experimental shots which you refer to in your letter to me of April 16. The principle of cooperation with the UK on these matters is well established.

However, before such an invitation is issued I think that the relationship of this group of tests to your fiscal year 1963 and 1964 testing programs must be explored. The President has approved a total of twenty tests during the period March 21 through June 30, 1963, and this total is to include all types of experiments, which presumably would cover any experiments in cooperation with the UK.

As far as the fiscal year 1964 is concerned, you know this matter will be given an intensive review under the chairmanship of Dr. Wiesner. Until this program has firmed up, I can't see how we can decide on the number and type of experiments in cooperation with the UK.

Sincerely,

McG Bundy

McGeorge Bundy

The Honorable Glenn T. Seaborg
Chairman
Atomic Energy Commission

AEC

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

No. F-94
Tel: HAZELWOOD 7-7831
Ext. 3446

FOR IMMEDIATE RELEASE
(Friday, May 17, 1963)

AEC CHAIRMAN SEABORG DEPARTS FOR MOSCOW SATURDAY
TO VISIT SOVIET SCIENTIFIC INSTALLATIONS

Glenn T. Seaborg, Chairman of the U.S. Atomic Energy Commission, will head a group of scientists leaving Washington, D.C., Saturday (May 18) for Moscow to visit Soviet scientific installations. The U.S. party is visiting the Soviet Union at the invitation of Mr. Andronik Petrosyants, Chairman of the State Committee of the USSR Council of Ministers on the Utilization of Atomic Energy.

Among the facilities Dr. Seaborg and members of his party are scheduled to visit are the Moscow State University, the Kurchatov Institute of Atomic Energy, the Lebedev Physics Institute and the Institute of Chemical Physics of the USSR Academy of Sciences in the Moscow area; the reactor facility at Obninsk; the Joint Institute of Nuclear Research at Dubna; the Leningrad Physical Technical Institute and the Khlopin Radium Institute at Leningrad; the Ulyanovsk Reactor Site; the power reactor at Voronezh and the Physical Technical Institute at Kharkov. The scientists will return to Moscow where Dr. Seaborg will deliver a lecture at the Kurchatov Institute of Atomic Energy. The party will leave Moscow for Paris on May 30.

During the visit, Dr. Seaborg and Mr. Petrosyants are scheduled to sign a memorandum on cooperation in the peaceful uses of atomic energy between the United States and the Soviet Union extending through 1965. This memorandum will implement the atomic energy section of the U.S.-USSR Exchanges Agreement in the Scientific, Technical, Educational, Cultural and other fields, which was signed last year.

(more)

Prominent scientists in the United States atomic energy program who will accompany Dr. Seaborg are: Dr. Manson Benedict, professor of nuclear engineering, Massachusetts Institute of Technology, and Chairman, General Advisory Committee of the AEC; Dr. Albert V. Crewe, Director, Argonne National Laboratory, Argonne, Illinois; Dr. Albert Ghiorso, scientist, Lawrence Radiation Laboratory, Berkeley, California; Dr. Gerald F. Tape, President, Associated Universities, Inc. (Contractor for Brookhaven National Laboratory) and AEC Commissioner designate; and Dr. Alexander Zucker, scientist, Oak Ridge National Laboratory, Oak Ridge, Tennessee.

Dr. Seaborg will also be accompanied by Mr. A. R. Luedecke, General Manager of the AEC, and the following members of the AEC staff: Mr. Algie A. Wells, Director, Division of International Affairs; Dr. Arnold Fritsch, Technical Assistant to the Chairman, and Mr. Cecil King, Staff Assistant to the Chairman.

5/17/63

At 5:15 p.m. John Finney called to ask if there is any additional information on my Russian trip I could give him such as where we planned to go, etc. I told him that the details have yet to be worked out but I expect to visit a number of nuclear laboratories and institutes. He asked if I thought the earlier agreement (McCone-Emelyanov) was generally successful and I told him it was. He asked who initiated the renewal of the agreement, the U.S. or the Soviet Union. I said it was both, actually, that the talks began at the time the agreement expired, but the invitation to visit Russia came from them, and at the same time they were invited to visit the U.S. to sign the agreement. He asked if I thought we would discuss the large accelerator. I said we would discuss that field, but whether we will discuss that particular project was not indicated although it is a logical area.

At 5:25 p.m. Alfred Friendly (Washington Post) called to ask if I will be willing to give them an article on my trip to Russia upon my return. They will try to not define the content of the article but will be pleased to have anything I think interesting and of interest to readers. I said I will seriously consider his request; but since our group will be going as a scientific group, it will be hard to disassociate this phase of the trip from the personal side. He said they want to hear from me as a scientist.

Wednesday, April 17, 1963 - Germantown

I met with Reichardt, Wells, Fritsch and King to outline the Russian trip. Both Tape and Crewe have called to say that they will be happy to accompany me.

At 11:15 a.m. I presided over Commission Meeting 1924 (action summary attached). We had a long session trying to develop criteria for contract renewal for operators of AEC facilities that will include credit for the extent that the contractor has his own commercial operation in atomic energy. We also discussed criteria that make it more automatic to look to a change of contractors at the expiration of a contract period.

At 2:30 p.m. I called Senator Dodd to suggest that we bring him up to date on the implications of the correspondence with Fisher published last week in the Star and the Post. I said I don't think there is anything to be concerned about, but we do want him to be up to date. He will call Palfrey and arrange a time when Palfrey can brief him.

John Foster called at 3 p.m. to bring me up to date on the ROVER situation. Johnny feels they have reached the stage where they have something more exciting than they thought possible. They have added a section involving the reactor worked on by Roger Batzel which has a higher specific impulse by about 100 than the other one. It has essentially no material problem and the nuclear cost is down by about a factor of 4. I asked Johnny if he has passed this on and he said he hadn't. He plans to have Roger Batzel and Ted Merkle talk with Luedecke. He also made arrangements for Batzel to see me on April 22nd.

From 4 p.m. to 6 p.m. I attended a meeting of the Principals in the Conference Room of the Secretary of State. Present were: Rusk, George Bunn, McNamara, Maxwell Taylor, Nitze, Haworth, Kaysen, Keeny, Wiesner, Foster, McCone, Murrow, and Bundy, as well as Kavanagh, Kelly and others.

Rusk opened the discussion by requesting an expression of feelings as to the value of a test ban treaty in today's context; that is, he wanted to find out whether there were any recent developments which might lead to a change in view that such a treaty would be in the national interest. The consensus was that a test ban treaty is still in the national interest and that the danger to the U.S. from unlimited testing and an unlimited arms race is greater than the danger due to any

Memorandum

TO : A. R. Luedcke, General Manager

DATE: April 17, 1963

Approved A. R. Luedcke

FROM : W. B. McCool, Secretary

Date 4/17/63SUBJECT: ACTION SUMMARY OF MEETING 1924, WEDNESDAY, APRIL 17, 1963, 11:15 A.M.
ROOM A-410, GERMANTOWN, MARYLAND

SECY:JEG

Commission Business1. Minutes of Meetings 1911 and 1922

Approved, as revised, subject to comments by Commissioner Haworth.

2. AEC 25/255 - Proposed Army Safety Rules

Approved, as revised.

The Commission requested appropriate revisions in the draft letter to the Secretary of Defense. (Betts)

3. AEC 25/256 - Proposed Air Force Safety Rules

Discussed.

The Commissioners requested a report on the Safety Study and past decisions by the Commission prior to formal action on the matter. (Betts)

The Chairman requested the draft letter to the Secretary of Defense be revised to include the change noted in paragraph 8, page 3 of AEC 25/256. (Betts)

4. AEC 181/102 - Extension of Operating On-Site Service-Type Contracts
AEC 181/101 - Preferential Consideration to Selection of Contractors Having Commercial Atomic Energy Programs

The Commission requested re-draft of the proposed criteria for review by Commissioner Ramey and further consideration by the Commission. (Hennessey/Vinciguerra)

April 17, 1963

5. AEC 501/47 - Visit of USSR National to AEC Laboratory Facility

Approved. (Wells)

The Commission approved the attendance of Professor V. Y. Goldanskii as a substitute for Dr. Flerov at the ANL Conference on Transplutonium Elements. (Wells)

The Chairman requested appropriate arrangements be made if possible for a visit with Professor Goldanskii on May 9, 1963. (Wells/Secretary)

6. AEC 262/112 - Proposed Extension of Contract with E. I duPont de Nemours & Company

Deferred.

7. AEC 20/146 - Proposed Extension of Contract with Lucius Pitkin, Inc.

Deferred.

8. AEC 24/27 - AEC Contractor for Miscellaneous On-Site Engineering Services (RLOO)

Deferred.

cc:
Commissioners

inadequacies in the test ban treaty.

However, McNamara and others indicated that they think there is an increasing resistance to a test ban treaty in Congress. McNamara felt that part of the trouble is that congressional committees are summoning staff people from various agencies and departments of the Executive Branch and interrogating them in such a way as to get one-sided views. He feels that representatives of the Executive Branch should be better coordinated to counteract this movement and should testify only in the presence of a legal advocate to help keep them in balance. It was decided that there should be a coordinating group for this purpose and that Bundy's office should arrange this.

The discussion then went on to the Annex II, i.e., the provisions for Plowshare in the present draft treaty. I presented my views on this in some detail. I said that my reasons for calling this to the attention of the Principals are: 1. Much progress had been made in the uses of peaceful explosives in recent years, and 2. it has been called to my attention recently that we can't do much in this area under the present treaty. I said that, therefore, I have looked for modifications in the Plowshare article, on the assumption that we would want to make progress in the Plowshare program. This led to the idea of a quota system of some five or six Plowshare experiments per year, with a limit on the yield, such as 50 kilotons. In the limit, this approach could be the same as the present ANNEX II (copy attached) except for the deletion of the one sentence on the internal and the external disclosure of the devices. I read excerpts from Annex II and said that it could be strengthened even further by having limitations on instrumentation and international manning of the instrumentation. I also read from Kelly's memorandum that a number of the proposals have been received for uses of Plowshare in building harbors, canals, excavations, mining, oil recovery, scientific experiments, etc. I mentioned, in connection with scientific experiments, that we have recently learned from a Russian scientist, that they have conducted an underground experiment for the production of new transuranium elements and that this scientist hopes that a test ban treaty could make such experiments possible.

I said I see the difficulties in my suggested approach because the possibilities for weapons testing under the guise of Plowshare would be inconsistent with the concern about cheating through clandestine underground testing. I said that there would be an adverse reaction to the elimination of Plowshare and that my suggested approach has the advantage that it wouldn't be necessary to go to Congress to obtain authorization to reveal weapons designs, which would be difficult even for obsolete weapons.

After a great deal of discussion, in which the inconsistency of adopting this Plowshare approach from the standpoint of opening the door to weapons testing was emphasized by McNamara, Bundy, Wiesner, Foster and McCone, it was suggested by Rusk that, nevertheless, another look at the wording of Annex II be made to see whether it would be possible to devise a scheme whereby Plowshare could go forward. After this has been done, the matter will be considered further at another meeting of the Principals.

Thursday, April 18, 1963 - Germantown

The Commission was briefed by Weinberg, Culler, Young, Hammond and others from ORNL on their studies of huge desalination reactor(s) from which electricity would be a by-product. This is under study by an interdepartmental committee.

I was interviewed by Dick Smyzer (Editor, Oak Ridger) on various activities and plans at Oak Ridge.

CROSS REFERENCE SHEET

Document #
901839

TITLE OF DOCUMENT Annex II, Explosions for Peaceful Purposes
no date

This document requires further classification review and has been removed from this folder.

Jeffrey B. Hala
Name

August 22, 1986
Date

23093-23101
435

I explored with Ramey (and Palfrey yesterday) the question of which of them has seniority. This is a very difficult problem because both of them are insisting on it. Traditionally, seniority has determined who is to be acting chairman in my absence.

Ed Carter called to describe some of the assets of the Northrup Company in connection with the service contract at the Nevada Test Site (Jackass Flats). Northrup is one of the four finalists.

Friday, April 19, 1963 - D.C.

Kaysen called to request that the AEC forbid Betts to appear before the staff of the Preparedness Subcommittee of the Senate Armed Services Committee today to brief them on underground testing. This was Kaysen's interpretation of the decision reached by the President on Wednesday that the Executive Branch should be better coordinated on these staff appearances. I managed to convince him that we should allow Betts to appear and thus avoid a possible public hassle. I assured him that Betts will limit himself to technical matters. A policy on this problem will have to be evolved soon (perhaps next week) by the Executive.

At 10 a.m. I presided over Information Meeting 266 (notes attached).

In honor of my birthday I was taken to lunch at the Roger Smith Hotel by Mildred Cecil, Marie Janinek, Howard Brown, Chris Henderson, Arnie Fritsch and Cecil King (my immediate staff).

I called Kaysen and told him that Betts and Banks came in to tell me about their briefing session with the staff of the Preparedness Subcommittee of the Senate Armed Service Committee. They seem to think it went well and that perhaps they even "educated" the staff. I then mentioned the release of the testimony yesterday, in which LeMay and Shoup urged the big bomb and asked whether we have any control over things like that. Kaysen said the answer is "awful little."

I expressed the feeling that McNamara and others should give thought to this problem, and Kaysen agreed. I then said that there is a debate between DOD and AEC on how to approach this matter of the big weapon. It is Kaysen's impression that the President had asked for a separate review in his letter to Rusk, McNamara and me. I told him that DOD wants me to sign a joint letter with them to the President, asking for approval to make the biggest weapon possible, without testing, that can be carried in the B-52, together with approval for use of the nuclear material at a total cost of \$200-\$300 million. My preference is for a letter to the President, outlining the whole dimension of the problem: the various types that can be built, with and without testing, and placing this before him for consideration--and possible consultation with NSC, etc.--and then formulating a national policy.

I said I don't have any satisfaction in undertaking such a horrible development. I realize that it may be necessary but it should be undertaken on the basis of full consideration. I said that everyone here thinks it's crazy to suggest approval of this one approach, and I am surprised that McNamara bought it. We thought we had misunderstood DOD, but then we had a letter from Gilpatric insisting on this approach and wanting data. We gave them the data but still think our approach is better.

The family gave me a birthday dinner party and presents.

Lynne returned from her vacation in South Carolina about 9 p.m. She looks very fit and tan.

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



UNCL. BY DOE
NOV 88

COPY NO. 15
April 19, 1963

INFORMATION MEETING 266

10:00 a.m. Friday, April 19, 1963, Chairman's Conference Room, D. C. Office

1. Chairman's Meeting with The Principals Yesterday

The Chairman said he had presented the Commission's position on the NEAMSARE Program and that Secretary Rusk had then requested preparation of a draft position paper for consideration at a subsequent meeting of the Principals.

2. Public Release on Results of U.S. Nuclear Tests

The Chairman said he had discussed this matter briefly with Messrs. Foster, Kaysen and Nitze, and that it was agreed it may be desirable to publish results of the U.S.S.R. tests concurrently. The General Manager has circulated a revised statement on U.S. test results.

3. Nuclear Rocket Concept

The Chairman said Mr. Foster, Livermore Laboratory, had discussed with him a new concept and that Mr. Batzel, LRL, will be in Washington on Monday to discuss the matter further.

4. Allied Chemical Contract

The General Manager said staff recommendations are in preparation.

5. Legislation on Camp Pendleton Site for Southern California Edison Reactor

The Chairman requested a review of the problems raised by the Department of Defense and the Bureau of the Budget. (GC)

6. Mr. Shapiro's April 13 Letter re NUMEC Contract

The Commissioners discussed briefly the questions raised in the letter regarding the plutonium processing plant at Hanford and the NUMEC contract, and the General Manager reported the matter is under current consideration. (Vinciguerra)

7. General Manager's April 17 Memorandum re Second Generation Power Plant

The Chairman referred briefly to reports of the Joint Committee's concern re the program and suggested the Commissioners review the General Manager's memorandum for consideration later. (Brown/Secy)

8. Area Redevelopment Group Meeting Yesterday

Mr. Ramey reported on the meeting he attended yesterday at which problems of the Appalachian area were discussed. Undersecretary Roosevelt is to chair the Federal State Committee on Planning and a May 15 progress report by each agency is to be submitted. Mr. Ramey referred to AEC assistance in research and development at Oak Ridge, Savannah River, etc., as previously discussed by the Chairman at the meeting with the President and others. The possibility of establishment of an Appalachian institute was discussed and Mr. Ramey said he will send a note of information on activities on Oak Ridge Institute.

9. Proposed Reply to Secretary Gilpatric's April 10 Letter re Weapons Production

The Chairman said the proposed letter will be circulated for Commissioners' review and he will sign it subsequent to their comments. (Brown)

10. Savannah River Briefing Charts

11. Commissioners' Executive Meeting with Joint Committee

The Chairman requested discussions with Joint Committee staff to schedule a meeting on April 24, 26, May 1 or May 2. (Ink)

12. Contract for Support Services at NTS

The Chairman requested the Commissioners be kept informed of the progress.

✓ 13. Chairman's Letter to Secretary Gilpatric re Weapons Development *in S/R*

The Chairman said he would sign the letter to Secretary Gilpatric and Mr. Ramey noted the press reports this morning of the Department of Defense's interest in large weapons. The Commissioners requested suggestions on procedures by which the Commission can be informed of this type of information prior to its release in the press. (Ink)

14. Response to Secretary Gilpatric's April 10 Letter re Weapons Development

The Chairman suggested preparation of an early response for the Commissioners' consideration. (Etts)

15. NSAM 234

Noted.

16. Draft Document re MLF

Commissioners discussed the questions raised by the draft State document and the staff's comments on the document. Mr. Palfrey will draft AEC comments with staff assistance. (Ink/GC/Betts)

17. Exchange of Agricultural Commodities for South African Uranium (see Mr. Johnson's April 11 Memorandum to the General Manager)

The Commissioners had no objection to the proposal, and the General Manager said the Joint Committee will be informed. (Johnson)

18. Safeguards Responsibilities to the IAEA Under the Tarapur Agreement (see Mr. Wells' April 12 and April 18 Memorandums to the General Manager)

The Commissioners approved the proposed position as revised to state that the U.S. will insist on replacing the word "regarding" with the word "for" in the first paragraph of Article VIII (Appendix B) (Wells)

19. Agenda for the Week of April 22, 1963

Approved, as revised.

20. Appointment of Mr. Lyons, Phillips Company, NRTS

The Commissioners had no objection.

21. General Manager's Letter to Congressman Sikes re Zirconium

The Commissioners had no objection.

22. Annex to General Betts' Study re Weapons Capability

23. DCD Request for Declassification of Information.

The Commissioners requested circulation of the memorandum. (Marshall)

24. Joint Committee Executive Session, Monday

25. Appropriations Hearings Scheduled for June 5
26. Authorization Hearings May Be Scheduled the Week of May 29
27. General Manager's April 18 Memorandum re Bids on Vacuum Pumps

The Commissioners said they would review the memorandum.

PRESENT

Dr. Seaborg	General Lucdecke
Dr. Haworth	Mr. Ink
Mr. Ramey	Mr. Ferguson
Mr. Palfrey	Mr. Brown
	Mr. McCool

DISTRIBUTION

Commissioners
General Manager
General Counsel
Secretary

W. B. McCool
Secretary

Saturday, April 20, 1963-- D. C.

I worked in the office until 3:15 p.m.

Jerry Wiesner called at 2:15 p.m. to ask what I thought about the suggestion of getting Ed Condon to conduct the energy study. He feels Condon would be very qualified to do this job, although his appointment, of course, will have to be approved by the President. Condon will have to have a White House clearance (FBI) and possibly an AEC clearance. I said that the time required for the clearance might preclude this possibility. I said I feel, in order to get on with the study immediately, we almost would have to get someone who already has the necessary clearance.

In celebration of Dave's birthday, I took Dave, Steve, Pete, Eric and Dave's friends, Arthur Cobb, Don Schuirman, Doug Phillips, Bill Howe and Ziad El Shakaa (Egyptian) to the Senators-Yankees night game. The Senators won, 7 to 1.

Sunday, April 21, 1963

I worked on AEC papers and some of my forthcoming speeches.

Helen and I attended a buffet dinner at the John Grahams. Also present were the Bill Libbys, Alan Watermans, Senator and Mrs. Wallace Bennett, the Robert Wilsons and Mrs. Howard (John Graham's sister).

Monday, April 22, 1963 - D.C.

From 10 a.m. to 10:15 a.m. I met with Glenn Lee (Publisher, Tri-City Herald) who is pleased with the results of our naming a task force in connection with the possible Hanford diversification.

I met with Roger Batzel, Ted Merkle and Harry Reynolds of Livermore who have conceived of a modified ROVER Nuclear Rocket. A problem is how to get financial support for it. They think that Livermore people who are to be released from PLUTO wouldn't go to Los Alamos to help with ROVER, which is in trouble.

I attended a luncheon in the Veto Room of the Congressional Hotel for Donald a Pugnetti (Tri-City Herald), the winner of the Thomas L. Stokes Award for his articles urging NPR conversion. Chet Holifield, J. R. Wiggins (Washington Post), Senator Jackson, Glenn Lee, Congresswoman Catherine May, Edward P. Morgan and others attended.

I attended the NAS Chemistry Section meeting to choose next year's candidates. Tomorrow Perlman will be 34th (out of 35), Connick, 26th. This should assure their election. The group discussed the apparent disproportionately small share of NSF funds devoted to chemistry.

Helen and I attended a dinner given by Bell Telephone Laboratories and the American Physical Society at the Sheraton Park Hotel preceding a symposium honoring Niels Bohr. Others attending the dinner were: Aage Bohr, Jim Fisk, Mr. and Mrs. John Williams, the Bob Bachers, Isidor Rabi, Karl Darrow and Felix Bloch. We didn't attend the symposium which followed.

Tuesday, April 23, 1963 - D.C.

I attended a business meeting of the National Academy of Sciences. Perlman was elected 34th out of a total of 34. I spoke for him and Goldhaber seconded my talk. Connick was elected 26th. I stayed at the Academy for lunch.

From 2:40 to 3:10 p.m. Dr. Robert Bacher and Dr. Lee DuBridge of the California Institute of Technology came in to see me. They said that, as a result of policy discussions, they have decided not to make the request to build a huge accelerator at Cal Tech but rather to develop a strong "users group" in connection with other accelerators. In this connection they need a new building and they gave me two copies of a brochure describing such a building at a current cost estimate of \$2,738,000. The building is planned to be built next to their 1.5 BeV electron synchrotron for it is needed in connection with the operation of this machine. They have submitted a proposal to the San Francisco A.E.C. office and also have spoken to Paul McDaniel and the Research people about this. I described to them the difficulty the Commission is having in budgeting for such buildings and mentioned, in particular, the University of Chicago High Energy Physics building. I said, however, if the Division of Research recommends this with high priority, I am sure the Commission will go along in spite of the problem of dealing with the Bureau of the Budget and Congress.

I sent my biweekly report to the President (copy attached).

I sent a letter to the GAC in response to their report of their 83rd meeting (copy attached).

Wednesday, April 24, 1963 - D.C.

At 9:30 a.m. I presided over Information Meeting 267 (notes attached). We noted Gilpatric's April 22nd letter in response to Bundy's letter of March 5th (which we answered on March 11th) giving plans and cost for the atmospheric test series. The series are planned to start on July 1, 1964, on Johnson Island.

President Kennedy sent me a telegram saying that he is reappointing me to a five-year term as a Commissioner and Chairman of the AEC saying that he is delighted I can serve. (I hadn't indicated to anyone in the White House that I would serve, but under the circumstances I will. I had about decided to accept reappointment if offered).

At 11:45 a.m. I presided over Commission Meeting 1926 (action summary attached).

At 2 p.m. I met with Sigvard Eklund to discuss a number of IAEA problems: 1. the size of the 1964 Peaceful Uses Conference. (He is dissatisfied with the size limitation and will call it off if too small. I persuaded him to go ahead with it and we would all press for adequate size.) 2. IAEA safeguards (I said we are standing firm on India.), and 3. IAEA Panels on International Accelerator and High Flux Reactor. I agreed to this.

I wrote to Glatha Latimer about the dedication of Latimer Hall (copy attached).

Thursday, April 25, 1963 - D.C.

The other Commissioners and I met with the GAC. We discussed test plans, ROVER, my trip to the Soviet Union, the GAC-PSAC High Energy Physics report, the big bomb, etc.

I had lunch with Harrison Brown at the Knife and Fork on M Street.

At 4 p.m. I presided at the Lawrence Award Ceremony which was held at the National Academy of Sciences. Awards were given to Herbert J. C. Kouts of Brookhaven (for reactor work), L. James Rainwater of the University of Colorado (for neutron cross sections, etc.), to Louis Rosen, Los Alamos (for weapons work), to James M. Taub, Los Alamos (for metallurgical work) and to Cornelius A. Tobias of Berkeley (for

April 23, 1963

PERSONAL AND

Dear Mr. President:

I have the pleasure of submitting to you the regular bi-weekly report on significant developments in the atomic energy program: -

1. Visit to the USSR (Unclassified)

Plans for my forthcoming trip to the USSR are progressing satisfactorily and I now plan to depart for Moscow on Saturday, May 18. A press release has been issued. I would like to express my appreciation for the use of your aircraft on this trip. A proposed itinerary has been suggested to the Soviet side and we hope to get their reaction in the next few days. I am attaching a list of those individuals who will accompany me.

2. Status of Project BRIBBLE (Unclassified)

Construction and other preparations at the Tatum Salt Dome for the conduct of Project BRIBBLE, near Hattiesburg, Mississippi, are on schedule with the first event, SALMON (5 KT tamped at a depth of 2700 feet), planned for June 24, 1963. Project BRIBBLE is part of the VELA Program which has as its main purpose confirmation of the decoupling theory for underground nuclear detonations.

3. Foreign Visitors (Unclassified)

Dr. Sigvard Eklund, Director General of International Atomic Energy Agency, will visit the U.S. to attend meetings of the UN Scientific Advisory Committee on April 25-26. I plan to meet with Dr. Eklund on April 24 to discuss the Third Peaceful Uses Conference, to be held in Geneva in the fall of 1964, and the Role of International Atomic Energy Agency on Safeguards for Tarapur Reactor Project (India).

US DOE ARCHIVES	
326 US ATOMIC ENERGY	
RG	COMMISSION
Collection	<i>G T Seaborg</i>
Box	<i>177</i>
Folder	<i>Report to White House</i>

Admiral Athanassios G. Spanides (NHS Nat.), President of the Greek Atomic Energy Commission, is also in the U.S. and may visit Oak Ridge, Argonne, or other AEC research centers.

4. Press Allegations Regarding Nuclear Reactor Accidents
(Unclassified)

Mr. Erv Pearson, in his syndicated news column "The Washington Merry-Go-Round," stated on April 22nd and 23rd that "several accidents" occurred in nuclear reactors during the past few months which have not been publicized. The following information is furnished on each of the points raised in Mr. Pearson's columns.

H. S. SAVANNAH

The reactor on the H.S. SAVANNAH "scrammed" - that is, shut itself down automatically, enroute between San Diego and Honolulu. This was caused by a spurious electrical signal - not a reactor malfunctioning. The reactor was restarted normally and the ship proceeded on its voyage. The ship is now in Galveston for routine maintenance in accordance with a planned outage schedule. Reversing electrical switchgear has been installed on the auxiliary take-home motor which has been on the ship from the beginning.

Indian Point Reactor

DOE ARCHIVES

In November 1962, Consolidated Edison Company reported a malfunction of an "engage" switch due to moisture in the mechanism, which gave an erroneous indication of control rod positions in the reactor. This report described the malfunction and the measures taken to correct it. There was no exposure or threat of exposure in connection with this malfunction. The Commission has recently received a request from a member of the public, interested in the proposed Consolidated Edison Ravenswood reactor in New York City, for a copy of the Indian Point report. The Commission plans to release the report. We understand the company is also planning to release the report. (FYI: The Commission has not made available to the public reports by private firms on reactor malfunctions where there was no radiation exposure or threat of exposure. The thought behind this procedure was that it would encourage licensees to submit candid and complete details on a prompt basis. The Commission currently is re-evaluating its experience under this procedure.)

Lagomas Beach Reactor

There have been two open public hearings on the Detroit Edison Company plant at Lagomas Beach, Michigan, one at the time the construction permit was issued and another last January on the application of the company to undertake initial tests at one segment. The Atomic Safety and Licensing Board, which considered the recent hearing, last week rendered an initial decision authorizing one segment operation. This decision is now under review by the Commission. The "sealants" at the Lagomas Beach plant have involved material and component failures in the course of non-nuclear testing. No nuclear material has been involved.

New York City Reactor

The Consolidated Edison Company has filed an application to build a large nuclear power plant in Queens, New York City. The application is now under review by the Commission staff and the Advisory Committee on Reactor Safeguards. Before the Commission can either grant or deny the application to construct this plant, a public hearing must be held as required by law. No action has been taken on this case and no commitments have been made.

3. Kentucky Waste (Unclassified) DOE ARCHIVES

At the joint hearing of the Advisory Policy Board to the Area Redevelopment Administration and the Conference of Appalachian Governors at the White House on April 9th, I indicated that I planned to attend the forthcoming annual meeting of the Southern States Nuclear Board on April 27th at Louisville, Kentucky. On April 26th, I have been asked to deliver remarks on the occasion of the dedication of the new Chemistry-Physics Building at the University of Kentucky. Governor Harrison of Virginia will be accompanying me to Kentucky and I am looking forward to stimulating discussions with him, Governor Cade and other members of the Board.

Following my visit to Kentucky, I will give the principal address at the Charter Day exercises on April 29th, commemorating the 100th anniversary of the founding of the University of Massachusetts, Amherst, Massachusetts.

On May 3rd, I plan to be at Iowa State University for the dedication of a research building at the AEC Ames Laboratory. Congressman Neal Smith of Iowa will accompany me to Ames. On the following day, May 4th, I will speak at the Gustavus Adolphus College at St. Peter, Minnesota, at the dedication of the Alfred Nobel Hall of Science.

Respectfully submitted,

Glenn T. Seaborg

The President
The White House

DOE ARCHIVES

Enclosure

U.S. GROUP TO VISIT USSR

Dr. Glenn T. Seaborg, Chairman, US AEC

Dr. Gerald F. Tape, President, Associated Universities, Inc.
(Contractor for Brookhaven National
Laboratory), AEC Commissioner designate

Dr. Hanson Benedict, Chairman, General Advisory Committee to
US AEC

Dr. Albert V. Crews, Director, Argonne National Laboratory

Dr. Albert Ghiorso, Scientist, Lawrence Radiation Laboratory,
Berkeley

Dr. Alexander Zucker, Scientist, Oak Ridge National Laboratory

Mr. Alvin R. Luedcke, General Manager, US AEC

Mr. A. A. Wells, Director, Division of International Affairs,
US AEC

Dr. A. R. Fritsch, Technical Assistant to the Chairman

Mr. Cecil St. C. King, Staff Assistant to the Chairman

DOE ARCHIVES



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

APR 23 1963

UNCL. BY DOE
NOV 86

Dear Hansen:

Thank you for your letter of March 21, 1963, reporting on the 83rd meeting of the General Advisory Committee. We have reviewed the items in the letter and have the following comments:

a. Weapons

In regard to the committee to coordinate weapons effects research by the Atomic Energy Commission laboratories, in a December 11, 1962, memorandum to the Chairman, Military Liaison Committee, the Director of Military Application informed the Department of Defense of the formation of this committee and indicated that Sandia Corporation will be the focal point for coordination of weapons effects activity with the DoD. It was suggested that the DoD consider similar implementing action. We have been informed that the DoD is considering our suggestion in their organizational review that is preceding their implementation of the Weapons Effects Research Agreement.

The AEC and the DoD are currently developing plans for possible atmospheric tests in 1964. In our joint planning of weapons effects tests we will insure that your comments in regard to Sleigh Ride and an over-all proof test of a hardened warhead are considered.

We appreciate your commendation of the Sandia Corporation for establishing the Advanced Systems Studies Group. We will continue to encourage all the weapons laboratories to consider all aspects of nuclear weapons systems in their studies of advanced concepts and weapons development activities.

b. Nuclear Reactors

We, in general, agree with the concerns expressed by the GAC on the over-all mechanical design aspects of the ROVER reactor. Active work now being done by Westinghouse and Aerojet in detail

design analysis and testing should result in a suitable re-design of the reactor to avoid mechanical vibrations that had been encountered in the KINI B-4A test. In addition, the support of various NASA centers and AEC laboratories is being utilized to review all aspects of the design and test program to help provide greater assurance of successful reactor operation. The coordination between the Los Alamos KINI effort and the Westinghouse HERVA effort is close and is providing automatic means for design review and evaluation as well as for interchange of data.

c. PEAC-GAC Panel on High Energy Accelerators

The Commission is deeply appreciative of the thoughtful efforts of the General Advisory Committee on the relationship between high energy physics and other areas of scientific endeavor in the United States. It would be our hope and expectation that this question will be considered by Dr. Wiesner and the President's Scientific Advisory Committee when it reviews the forthcoming report of the PEAC/GAC panel.

In any event, Dr. Roworth and I would plan to discuss this question with Dr. Wiesner when the report becomes available, and I would anticipate further discussion of the matter by the Federal Council on Science and Technology.

d. Education

Copies of Dr. Norman Hilberry's report "The Role of Education and Training in the Program of the U. S. Atomic Energy Commission" are being transmitted to the Committee under separate cover.

It is noted that the Committee proposes to review the Hilberry report at its April 25-27 meeting and to discuss it and other educational matters with Dr. Poor at that time.

It is believed that a reading of Dr. Hilberry's report will reveal it to be an interesting and informative expression of the personal views and philosophy of a man who has had a wealth of experience in the field of which he writes.

However, the timetable against which he worked made it impossible for Dr. Hilberry to develop in more than outline form, an inventory of all of the Commission's education and

training activities. Therefore, in order that his report can be viewed in its proper context, it is believed that a complete inventory of these activities should be taken. Steps are now underway which we hope will lead to the completion of such an inventory before the end of this calendar year. We therefore recommend that the Committee defer its consideration of this matter until it has this relevant data before it.

c. Agenda for the 34th GAC Meeting

Messrs. D. H. Stewart and R. W. Ritzmann will be available on the afternoon of April 25 to brief the Committee on the current status of the interagency Committee's deliberations on large nuclear fired sea water distillation plants.

A joint session with the Advisory Committee for Biology and Medicine does not appear to be feasible for the April 25-27 period due to prior commitments by some of the ACBM members. A tentative date of July 20 is suggested for a joint meeting.

Sincerely yours,

(Signed) Glenn T. Seaborg

Chairman

Dr. Hanson Benedict, Chairman
General Advisory Committee to the
U. S. Atomic Energy Commission

Distribution:

- 1AS2A: Hanson Benedict; GAC.....
- 3AS4A: Chairman Seaborg <-----><<<<<
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4/22/63



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

UNCL. BY DOP
NOV 86

COPY NO. 15
April 24, 1963

INFORMATION MEETING 267

9:35 a.m., Wednesday, April 24, 1963, Chairman's Conference Room, D. C. Office

1. Department of State Cable re Attendance of Mr. Koshikov (U.S.S.R.) at Transplutonium Conference in Chicago

The General Manager said DIA will clarify the instructions. (Wells)

2. State Department's April 19 Letter re Toll Enrichment

Noted.

3. Secretary Gilpatric's April 22 Letter to Mr. Bundy re Test Planning

Noted.

4. Executive Authorization Hearings, 2:00 p.m. Today

The Chairman suggested Dr. Wilson and Mr. Ramey attend, and said he will attend if possible.

5. Letter to Mr. Bundy re STORAX Schedule

The Chairman said he will sign the letter today. (Brown)

6. Status of Nuclear Fuel Services Contract

In response to the Chairman's request, the General Manager reported briefly on the status of negotiations.

7. General Manager's April 18 Memorandum re Second Generation Portable Nuclear Power Plant

The General Manager recommended, and the Commissioners agreed, that in view of the scheduled Joint Committee hearings mid May, invitation for proposals for design studies should be deferred. (Vinciguerra)

8. April 22 Meeting of the Task Force on Desalination of Water

Dr. Wilson reported briefly on the meeting and said general agreement had been reached on criteria. The Commission is to develop further the proposed cases in anticipation of the next meeting of the committee on June 6, and AEC's cost figures are to be submitted to the Office of Saline Water and the Federal Power Commission by May 15. (Pittman)

9. Statement on Reactor Safety Policy

The Chairman spoke briefly of the request from the White House for a statement to be received by noon today.

PRESENT

Dr. Seaborg	General Luedecke
Dr. Wilson	Mr. Hollingsworth
Dr. Haworth*	Mr. Hennessey
Mr. Ramey	Mr. Brown
Mr. Palfrey*	Mr. McCool

DISTRIBUTION

Commissioners
General Manager
General Counsel
Secretary

*Partial Attendance

W. B. McCool
Secretary

UNITED STATES GOVERNMENT


Memorandum

UNCL. BY DOE
NOV 86

TO : A. R. Luedecke, General Manager

DATE: April 24, 1963

Approved A. R. Luedecke

FROM : W. B. McCool, Secretary 

A. R. Luedecke

Date 4/24/63

SUBJECT: ACTION SUMMARY OF MEETING 1926, WEDNESDAY, APRIL 24, 1963, 11:45 A.M.,
ROOM 1113-B, D. C. OFFICE

SECY:JCH

Commission Business

1. Minutes of Meetings 1912 and 1916

Deferred.

2. AEC 25/256 - Proposed Air Force Safety Rules

Approved. (Betts)

3. AEC 25/257 - Proposed Army Safety Rules

Approved. (Betts)

4. AEC 181/104 - Extension of Operating and On-Site Service-Type
Contracts, and
AEC 181/103 - Preferential Consideration to Selection of
Contractors Having Commercial Atomic Energy Programs

Discussed.

The Commission requested submission of revised recommendations.
(Vinciguerra)

5. AEC 262/112 - Proposed Extension of Contract with E. I. du Pont
de Nemours & Company

Deferred.

6. AEC 20/146 - Proposed Extension of Contract with Lucius Pitkin, Inc.

Deferred.

April 24, 1963

7. AEC 751/333 - Increase in the Amount of U-235 Which can be Transferred to EURATOM

Deferred.

8. AEC 890/95 - Presidential Determination of Enriched Uranium to be Made Available for Domestic and Foreign Distribution

Deferred.

9. AEC 811/111 - Plowshare Program

Deferred.

cc:
Commissioners

April 24, 1963

Dear Glatha:

I cannot let the coming dedication of Latimer Hall go by without writing you to express my feelings.

This memorial will be only a small measure of the debt that all of us in the Department of Chemistry owe to Wendell. He served as an inspiration through the example of his own outstanding scientific accomplishments and through his continuous concern for the welfare of his younger colleagues. It is in large part due to Wendell's efforts that the Department became staffed with brilliant young men after the war in order that it might continue to hold its traditional position as one of the outstanding chemistry departments in the world.

I am sorry that a previous commitment to speak on May 1 at the dedication of the research reactor at our Iowa State Laboratory in Ames will make it impossible for me to attend the dedication ceremony of Latimer Hall. I assure you, however, that you will all be in my mind and heart on that day.

With warmest regards,

Cordially yours,

Glen T. Seaborg

Mrs. Wendell M. Latimer
810 Euclid Avenue
Berkeley, California

cc: Dean Robert E. Connick

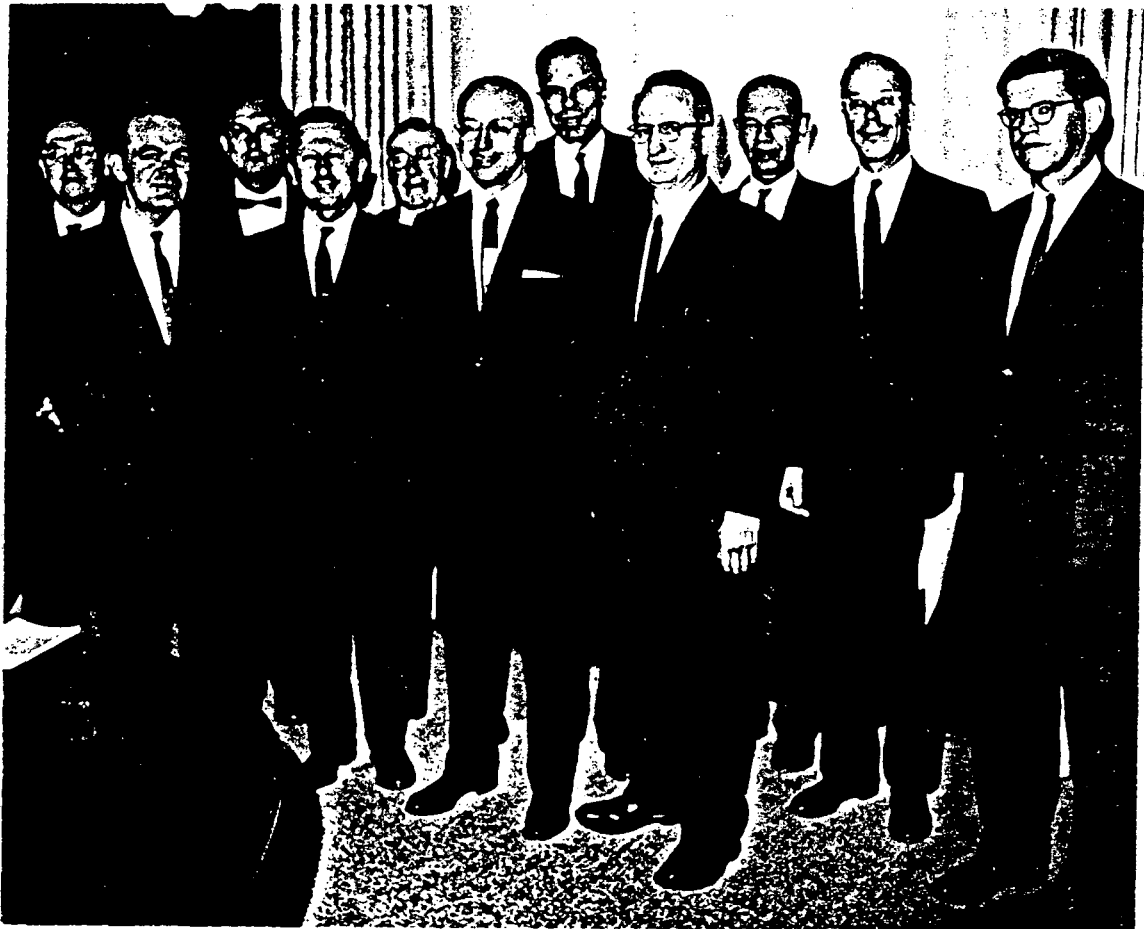
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Gen. Files
"Latimer"

Ernest O. Lawrence Award--1963

National Academy of Sciences, April 25, 1963



L to R: Tobias, Rosen, Taub, Kouts and Rainwater



Lawrence Award Ceremony at the National Academy of Sciences, April 25, 1963

L to R: Ramey, Kouts, Tobias, Rosen, Wilson, Taub, Seaborg, Rainwater,
Haworth, Benedict and Palfrey

radiobiology). Helen and I hosted a reception following the ceremony.

Helen and I attended a dinner given by the General Advisory Committee for the Commissioners and their wives at the Carnegie Institution (1530 P street, N.W.).

Friday, April 26, 1963 - D.C. - Lexington, Kentucky

At 9:20 a.m. I received a call from Dr. Elderfield of the University of Michigan, who is in Washington, D.C., today. He telephoned me from the American Chemical Society and wanted me to know that Wayne Meinke has resigned from the University, apparently in a huff. This might be attributed to the fact that he put in a request for a grant of \$8,000, which was denied. Elderfield feels this action is irrational and was unprovoked in any way by the University or by the AEC. Should Meinke get in touch with me, Elderfield thought I might try to persuade him to

return to the University. He assured me the University will take him back.

At 9:30 a.m. I presided over Information Meeting 268. 1. The General Manager reported briefly on the court injunction which has been issued and said that the Department of Labor thinks the AEC should now enter the case as a Party at Interest. 2. The Commissioners agreed preparation should be made for government participation, and the General Manager said the General Counsel will move ahead with its study of the appropriate procedure. 3. The Commissioners and the General Manager discussed briefly the probable items for joint discussion. 4. The General Manager reported that Pennsylvania Power and Light has under study construction of a nuclear reactor at 700 megawatts to be on line in 1970. The study is scheduled to be completed in 1964 and an announcement is scheduled to be made in about two weeks. The company wishes to discuss the study with the Commission prior to the public announcement.

The other Commissioners and I met in executive session with the Joint Committee on Atomic Energy from 10:30 a.m. to 12:30 p.m. We discussed 1. the revision to the U.K. Barter Agreement (allowing us to use plutonium for civil purposes), 2. the status of the Nuclear Fuel Services matter, 3. the status of ROVER, 4. the status of the SNAP study, 5. portable and mobile compact reactors. (We will brief them further on this), 6. the status of the private ownership bill and toll enrichment, 7. the saline water conversion study group, 8. the Moscow trip, and 9. the forthcoming decision on contract renewal for Allied Chemical.

At 1:15 p.m. Professor Emelyanov called to say he cannot come to Washington because of restrictions on his visa. I told him we have had his visa extended, but he had not heard anything and is committed to sail to Europe on April 30th. I expressed my regrets and Emelyanov changed the subject to my trip to the USSR and told me they will be awaiting my arrival.

Accompanied by Governor Albertis Harrison of Virginia and Chris Henderson, I flew in an Air Force DC-6 to Lexington, Kentucky, leaving Andrews Air Force Base at 2:30 p.m. and arrived at 4:30 p.m. We were met by Lyle Dawson (Chairman of Chemistry Department of the University of Kentucky, who worked with me at the Met Lab), John Breckenridge (Chairman, Kentucky Advisory Committee on Atomic Energy), Governor Combs of Kentucky and others.

We toured the new Chemistry-Physics building (244,000 square feet, built at a cost of \$5,600,000).

In the evening I gave the dedicatory address for the Chemistry-Physics building, at the Tates Creek Country Club. My talk was entitled, "Education and Economics," and was well received by the 350 people attending. Among them were Lieutenant Governor Wilson Wyatt, President Frank Dickey (who introduced me), Robert Blair (Manager of AEC Operations, Savannah River Plant), James Neel, Jr. (Director, Kentucky atomic Energy authority), John Breckenridge and Leo Chamberlain (President, Kentucky Research Foundation).

The members of the Southern Interstate Nuclear Board (SINB) were also present as well as representatives of the Kentucky Atomic Energy Authority, members of the University of Kentucky Board of Trustees, and members of state groups and representatives of other universities.

I attended a reception at the home of Dr. Ralph Angelucci (a trustee of the University of Kentucky) attended by governors and members of the University of Kentucky Board of Trustees.

I flew, with members of the SINB, to Louisville on an Air Force DC-6 which left at 10:30 p.m. and arrived at 11 p.m.

I spent the night at the Sheraton Hotel (in the suite earlier occupied by President Kennedy).

Saturday, April 27, 1963 - Louisville, Kentucky - Washington, D.C.

I attended a meeting of the Southern Interstate Nuclear Board which was held in the Sheraton Hotel. I gave a talk and answered questions concerning AEC installations and aid to education in the South. Governors Harrison and Combs also spoke. Members of the Southern Regional Education Board and the Oak Ridge Institute of Nuclear Studies were also present. The topic of discussion was the creation of a task force in education aimed at upgrading the sciences.

I held a press conference for the Louisville Courier-Journal and local TV and radio stations.

As the guest of Governor Combs, I had lunch with Harry Finger, members of the Kentucky Atomic Energy Authority, and the Kentucky Advisory Committee on Nuclear Energy at Churchill Downs and spent the afternoon viewing the running of the Kentucky Derby Trials. From here we were driven to the airport under police escort.

I returned to Washington on Eastern flight 406 which left at 5:30 p.m. and arrived at 7 p.m. Governor Harrison and Frank Norton (Chairman, SINB) were on the same flight.

Sunday, April 28, 1963 - Washington - Amherst, Massachusetts

I spent much of the day reading AEC papers.

At 6:30 p.m. Howard Brown and I flew from Andrews Air Force Base on an Air Force Aerocommander to Westover Air Force Base near Chicopee Falls, Massachusetts. We arrived at 8:30 p.m. We were met by Dr. John W. Ryan, assistant to President John W. Lederle of the University of Massachusetts, who drove us to Amherst. We visited Virginia Grahame there, her son John, and President Lederle.

We spent the night at Lord Jeffrey Hotel in Amherst.

Monday, April 29, 1963 - Amherst, Massachusetts, - D.C.

I had breakfast with Virginia Grahame at her home in Amherst (36 Jeffery Lane).

At 11 a.m. I attended the University of Massachusetts Centennial Charter Day where I received an Honorary Doctor of Laws degree. Dr. James K. Pollock (University of Michigan), Charles Avila (President, Boston Edison Company) and George Meany (president, AFL-CIO) also received honorary Doctor of Laws degrees. After being introduced by President Lederle, I gave the main address, "Public Higher Education and the National Good," which was very well received. I was complimented by Senator Edward Kennedy and others. Governor Endicott Peabody (Massachusetts) also spoke, as well as Robert Gardner, President of the Alumni and Gordon Oakes, Jr., President of the Class of 1963. Others attending the ceremony were Senator Kennedy, John Powers (President of the Massachusetts Senate), John Thompson (Speaker, Massachusetts House), other members of the Massachusetts legislature, Frank Boyden (Chairman, University of Massachusetts, Trustees and Headmaster, Deerfield Academy), other University of Massachusetts Trustees, James Nicholson

(Centennial Chairman) and Harusada Suguome (President, University of Hokkaido, Japan), who gave a short talk in greeting .

I participated in a TV and radio interview with Governor Peabody and President Lederle.

I attended a convocation luncheon in the Student Union Ballroom with the above group (except Kennedy, who left before the luncheon was over).

We flew back to Washington, leaving Westover Air Force Base at 2:45 p.m. and arrived at Andrews Air Force Base at 5 p.m.

I received a phone call from Earl Voss (Washington Star) at home. He said he had heard that there was some feeling within the Commission that Commissioner Haworth had exceeded his authority in clearing the Adrian Fisher letter to Senator Dodd. I said there was no such feeling within the Commission. Voss said this information spoiled a good story for him. He also called my attention to the fact that he had written a story about the argument in the Defense Department between the Office of the Secretary of Defense and the Joint Chiefs of Staff regarding the value of a nuclear test ban. He asked whether there was a similar difference of opinion among the members of the AEC. I told him that all the Commissioners were backing the President's stand on a nuclear test ban.

Tuesday, April 30, 1963 - D.C.

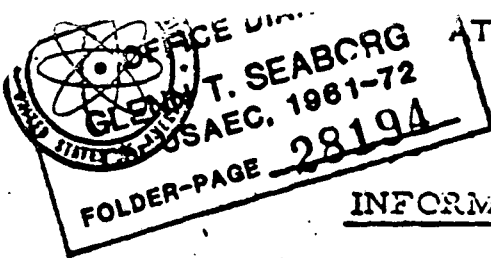
I testified before the Senate Committee on Aeronautical and Space Sciences on the ROVER and SNAP programs. Senator Clinton Anderson presided.

I was interviewed by Robert Toth (New York Times) regarding his planned series of articles on "government, the universities and education."

At 2:40 p.m. I presided over Information Meeting 269 (notes attached).

The Commission was briefed on NASA requirements for SNAP devices by NASA people--Finger, D. D. Wyatt (Director, Office of Programs), Fred Schulman (Chief, Electric Power Systems), Bruce T. Lundin (Associate Director for Development, Lewis Research Center), Webb, Seamans, and Dryden. There is increasing NASA interest in devices using alpha emitters, such as Cm-244 and Pu-238. The indications are that they will back an AEC production program.

I met with Wiesner, Walter Heller, Frank Keppel, Bowen Dees and Webb (in Wiesner's office) to discuss our appearance tomorrow before Senator Wayne Morse's Education Subcommittee.



ATOMIC ENERGY COMMISSION
WASHINGTON 25, D.C.

COPY NO. 15
April 30, 1963

INFORMATION MEETING 269

UNCL. BY DOE
NOV 86

9018

2:40 p.m., Tuesday, April 30, 1963 - Chairman's Conference Room, D. C.

1. April 26 Letter from Gerald Johnson re Program for Testing

The Chairman noted Dr. Johnson's statement that DOD's program is to be firmed up by May 15, and the General Manager said AEC's program could also be set by that date. An appropriate response is to be prepared. (Betts)

2. AEC 181/105 - Preferential Consideration to Selection of Contractors Having Commercial Atomic Energy Programs

The Chairman said the Commissioners had reached agreement on alternative 2, with some revision. The language need not be published, but it can be stated that the principle involved will be a factor in consideration of the selection of contractors.

3. NASM 235

The Chairman noted the White House is to be informed in conformance with the directive and said the directive is available in his office for review.

4. Letter re Personnel Action

The Chairman said he would sign the letter. (Brown)

5. Report to the President on Preparation for Atmospheric Testing

The Chairman said he is advised the President intends to approve the AEC report with the condition that there is to be no high level activity for a period of time. (Betts)

6. Letter to the DOD

The Chairman said he would sign the letter with the revisions suggested by Mr. Ramey. (Brown)

CLASSIFICATION CANCELLED
WITH DELETIONS
BY AUTHORITY OF DOE/OC

REVIEWED BY Carl Wilson DATE 7/16/86

7. Comments to the BOB on the Bell Report on Research and Development

The Chairman suggested early review by the Commissioners in preparation of his transmittal.

8. Letter to Kermit Gordon re Comments on Bill to Control Radiation Level of Exposure

The Chairman said he would sign the letter with the revision discussed.

9. Deputy to Stanford Accelerator Project Director

The Commissioners had no objection to the General Manager's recommendation.

10. Attendance at High Energy Accelerator Conference in the U. S. S. R. , August 1953

The Commissioners had no objection to the General Manager recommendation that approximately 65 U. S. personnel attend the conference. The Chairman suggested assurance that this action not bind the Commission in terms of reciprocity, etc.

11. Appointment of Assistant Secretary

The Commissioners had no objection to the General Manager's recommendation.

FRESENT

Dr. Seaborg	General Luedecke
Dr. Wilson*	Mr. Brown
Dr. Haworth*	Mr. Hennessey
Mr. Ramey	Mr. McCool

DISTRIBUTION

Commissioners
General Manager
General Counsel
Secretary

W. B. McCool
Secretary

*Partial Attendance

Wednesday, May 1, 1963 - D.C.

I appeared before the Education Subcommittee of the Senate Committee on Labor and Public Welfare as part of a panel (Wiesner, Webb, Heller, Waterman, Katzenbach). Committee members present were Senators Morse (Chairman), Javits, Kennedy, Clark and Randolph. We all supported Administration Education Bill 5580.

I had lunch at the Roger Smith Hotel with Bill Slaton, Jim Miller and Arnie Fritsch to discuss plans for the AEC's annual report, research report and other reports.

At 2:50 p.m. I presided over Commission Meeting 1927 (action summary attached). The Commission decided to request authority from the President to increase the amount of U-235 to be transferred to Euratom from 30,000 to 70,000 KG and to increase domestic U-235 for civilian reactors from 100,000 to 200,000 KG and for abroad from 65,000 to 100,000 KG. We adopted a plutonium buy-back price of \$10/gm (Pu-239 plus Pu-241) and a sale price of \$32/gm (applicable to RAPSODIE).

I received the report (copy attached) of the 84th meeting of the GAC which was held in Washington April 25th to 27th.

Thursday, May 2, 1963 - D.C.

I testified during the morning and the afternoon before the JCAE on the authorization bill--especially on provisions for the Power Demonstration Program, the Euratom Program and the Spectral Shift Reactor. Haworth, Ramey, Luedecke and staff also participated.

I had lunch at the Roger Smith Hotel with Spof English.

At 4:50 p.m. I presided over Information Meeting 270 (notes attached). GAO has requested AEC papers (staff papers, board minutes, correspondence, contracts, etc.) as a result of the JCAE holding hearings on May 14th. We decided to accede to the request.

In an executive Regulatory session, the Commission decided not to intervene in the PRDC operating license (for 1 MW); so it will become effective next Monday. If desired, it will be possible to intervene in the weeks before the license becomes final--in June.

Friday, May 3, 1963 - D.C. - Des Moines - Mankota, Minnesota

At 9 a.m. the Commission met with the Advisory Committee on Isotopes and Radiation.

At 11:30 a.m. I left for Ames, Iowa, via Des Moines, with Howard Brown, Dwight Ink and Congressman Neal Smith (Des Moines area). We flew in an Air Force Jetstar from Andrews Air Force Base. We left at 11:30 a.m. (EDT) and arrived at 12 noon (CST). We were driven to Ames, Iowa.

At 2:30 p.m. I participated in a cornerstone ceremony for the Ames 5 MW reactor (MTR type) by unveiling the cornerstone in the presence of Frank Spedding, Director, Ames Laboratory, James Hilton, President, and Willard H. McCorkle, Division Chief, Reactor Division.

We toured the Ames Laboratory reactor site, including the synchrotron, the new metallurgy building, the hot lab facilities, the rare earth research area and the high energy physics area.

Memorandum

TO A. R. Luedecke, General Manager

DATE May 2, 1963

Approved A. R. Luedecke

FROM W. B. McCool, Secretary *W. B. McCool*

A. R. Luedecke

Date 5/2/63

SUBJECT ACTION SUMMARY OF MEETING 1927, WEDNESDAY, MAY 1, 1963, 2:50 P.M.,
ROOM 1113-B, D. C. OFFICE

SECY:MK

UNCL. BY DOE
NOV 88

Commission Business

1. Minutes of Meetings 1912, 1916 and 1919

Minutes of Meeting 1912 approved, as revised, subject to comments by Commissioner Ramey.

Minutes of Meetings 1916 and 1919 approved, as revised, subject to comments by Commissioners Haworth and Ramey.

2. AEC 859/11 - Livermore Fallout Research Program

Discussed.

The Commission requested preparation of appropriate recommendations for consideration by the Commission on Monday, May 6, 1963.
(Dunham)

3. AEC 937/33 - French Mutual Defense Policy

Approved. (Wells)

4. AEC 751/333 - Increase in the Amount of U-235 Which Can Be Transferred to EURATOM

Approved. (Wells)

5. AEC 890/95 - Presidential Determination of Enriched Uranium to be Made Available for Domestic and Foreign Distribution

Approved. (Fine)

6. AEC 811/111 - Plowshare Program

Approved in principle. (Kelly)

The Commission requested that the letter to Mr. Bundy not be sent at this time and that working documents be prepared for possible presentation to the Subcommittee on NSAM 210. (Kelly)

7. AEC 720/150 - Prices and Charges for Plutonium and Uranium 233
(see also AEC 720/149 - Bred Fuel Values - Plutonium and
Uranium 233; and AEC 720/151 - Addendum to AEC 720/150)

Approved, as revised. (Fine)

The Commission requested that paragraph 16b be revised as follows:

"(3) charges for plutonium leased prior to July 1, 1963, based on \$30 per gram of total plutonium;

(4) notwithstanding (1), (2), and (3) above, charges equal to the guaranteed purchase prices for consumption of plutonium and U-233 leased domestically under sections 53 a (1) and (2), provided that in the case of material for nuclear reactors licensed under section 104 these consumption charges shall apply only where the lessee has agreed to furnish to the AEC technical and economic data of interest in the AEC program ;

(5) prior to the establishment of guaranteed purchase prices for plutonium and U-233 for a period after June 30, 1963, the consumption charges in (4) above shall be based on items a(1) and (2) of this Recommendation."

(Fine)

The Federal Register Notice is to be circulated for the Commissioners' review. Commission action on this matter is to be treated as privileged information until the Notice has been filed with the Federal Register in view of the current negotiations with EURATOM.

Commissioner Ramey noted his reservation that the purchase price for plutonium should be set at \$3 per gram of Pu-239 plus Pu-241.

8. AEC 580/183 - Reduced Production of Enriched Uranium

Discussed.

To be rescheduled next week. (Secretary)

Other Business

1. JCAE Hearings on NFS on May 14

The Chairman said the public announcement on granting of construction permit to NFS should include a statement that contract negotiations with the Commission have not yet been concluded.

(Clark)

2. AEC Authorization Hearing on May 2

The Chairman requested a short background briefing during the Information Meeting on May 2, 1963.

3. Commission Agenda for May 2 and 3, 1963

Items of Information

1. Death of Dr. Robert Kerr at Oak Ridge

2. Letter from Mr. Bundy re British Tests at NTS

cc:
Commissioners

GENERAL ADVISORY COMMITTEE
TO THE
U.S. ATOMIC ENERGY COMMISSION
P.O. BOX 3528
WASHINGTON 7, D.C.

DC FILE

April 27, 1963

UNCL. BY DOE
NOV 88

Dr. Glenn T. Seaborg, Chairman
U. S. Atomic Energy Commission
Washington 25, D. C.

828 5/11/63

Dear Glenn:

The 84th Meeting of the General Advisory Committee was held in Washington on April 25, 26 and 27, 1963. All members of the Committee attended all sessions of this meeting except for J. C. Warner, who was absent on April 25, Philip H. Abelson, who was absent on the afternoon of April 25, and Norman F. Ramsey, who was unable to attend on April 27. The present membership of the Committee is Philip H. Abelson, L. R. Hafstad, K. S. Pitzer, Norman F. Ramsey, J. C. Warner, William Webster, Eugene P. Wigner, John H. Williams, and Manson Benedict, Chairman. Also present at the meeting were Anthony A. Tomei, Secretary, and Robert A. Charpie, Assistant to the Chairman.

The Committee transmits its comments on the subjects discussed at this meeting as follows:

(1) High Energy Physics

The Committee received an excellent briefing on high energy physics from Drs. Gell-Mann, Goldwasser, and Ramsey. The Committee reviewed the Report of the GAC-PSAC Panel on High-Energy Accelerator Physics. We consider the report to be an excellent statement of the importance of advancing U. S. capabilities for research in high energy physics, and we regard each of the major new facilities described in the report as a feasible and valuable step forward in this field. The Panel has recommended a bold program which would ensure continued U. S. leadership.

At the same time, this Committee must emphasize that the proposed program calls for an increase in annual expenditure for research in high-energy physics from \$200 million in FY 1965 to \$600 million in FY 1980. The question must be squarely faced, therefore, whether it is wise for the United States to program an increased expenditure of this magnitude in the face of all other needs for funds for advancement of research and education. Before construction funds are committed for any of the major steps recommended in the Panel's report, there should be a careful evaluation of whether the step is warranted, taking into account the need for expansion of research in other areas.

We recommend that the AEC advocate to the Office of Science and Technology that a comprehensive study be made of the appropriate distribution of future government support for all areas of basic research. If invited, the GAC would be pleased to participate in such a study. We may wish to comment further at a later date on factors which should be taken into account in future consideration of the high energy physics program.

(2) Gaseous Diffusion Plant Operations

Messrs. George Quinn, Paul Fine and Frank Baranowski described to the Committee results currently being obtained in studies of alternative ways of operating the diffusion plants during the period from now until 1980. As their studies are not complete and as the results have not yet been discussed with the Commissioners, we obviously should not discuss the results at this time. It is clear, however, that the reduced requirements for fissile material for weapons between now and 1972, which the President recently transmitted to the Commission, will oblige the Commission to make decisions whose consequences are as serious as any it has faced for some time. The GAC would like to be in position to contribute constructively to clarification of the issues on which these decisions will be based. If at our July meeting this subject is still one on which our views would be pertinent, we would then like to have the following information:

- (1) The text of fissile material requirements and the ground rules set by the President to guide the AEC in determining how best to meet these requirements.
- (2) The results of further studies by the Production Division of alternative plans for meeting these requirements.

Behind the GAC's interest in these questions is the impression that it would probably be in the national interest to avoid a shut-down of one or more diffusion plants in the few-year interval between the falling off of military requirements and the anticipated pick-up of civilian-power requirements.

(3) Educational Matters

The Committee received a report from Dr. Poor on the activities of his Division which served to improve our understanding of his position. Additional factual information, which we understand is being prepared, will supplement the Hilberry report and will clarify our understanding of the Division of Nuclear Education & Training program. This will permit us to make a more complete evaluation of the Commission's posture and program in education.

(4) Project Sherwood

The Committee was pleased to have an opportunity to meet with Dr. McDaniel and discuss the present status and future plans for the Sherwood Project. We would like to request that the AEC continue to keep the Committee informed of changes and progress in the Sherwood Project.

(5) Large Reactors for Saline Water Conversion

The various reports on the proposed large scale project for saline water conversion by means of nuclear reactors were discussed at considerable length. In general the group feels that the Oak Ridge workers have made a significant and stimulating contribution to the idea of using nuclear energy for saline water conversion. The group feels that the initial Oak Ridge reports have been unduly optimistic and that the report on this project by the Large Low Pressure Steam Reactor Review Group to the Division of Reactor Development gives a more realistic basis on which to evaluate the program.

Because of the tentative nature of the proposal and the large extrapolation in cost and technology which are implied in many aspects of the project, it is difficult at this stage to evaluate the proposal in detail. In general the following comments can be made.

The cost reductions claimed are due largely to scaling up of facilities and projected improved technology in the nuclear system.

No adequate comparison has been made of the costs of competitive systems with similar increases in scale and improved technology.

The proper course of action for the Oak Ridge National Laboratory and the Commission would appear to be to continue studies of reactor types and appropriate scaling laws and particularly to try to determine for each reactor type the minimum size at which nuclear conversion of sea water might become practical. This would involve the normal "pioneering work as the inventors and developers of new concepts" in accord with established policy, but would not involve large scale engineering activities which might project both the laboratory and the Commission, unnecessarily, into controversial political areas.

Knowledgeable potential water customers capable of making independent judgements of the status of this technology exist in the Interior Department and the municipalities, such as the City of Los Angeles. The Commission should see that its findings as to the practicability and cost of using nuclear reactors for saline water conversion are properly presented to

such potential customers, but should not become an active party in promoting a full-scale nuclear saline water conversion venture. It is our considered opinion that the proposed area of study justifies exploration but definitely not a crash program approach.

(6) Third Geneva Conference

We have reviewed and discussed both the current plans for the Third Geneva Conference and Dr. Rabi's and Dr. Eklund's comments thereon. It is our opinion that the first two Geneva Conferences provided unique opportunities for the United States to demonstrate conclusively that we are the world leader in all aspects of atomic energy. The broad international participation in these Conferences and the deliberate attempt which was made to cover all aspects of the field of peaceful uses provided a framework in which the U.S. could demonstrate its accomplishments through the technical papers and the technical exhibits. We believe that the USAEC should try to use the Third Conference again as a showcase for U. S. accomplishments.

There has been a considerable reaction against having another Geneva Conference on the same scale. The present plans, both for the complete Conference and for the U.S. participation, reflect this reaction. We are in no position to judge what most scientists and most nations would prefer for the Third Conference. We do believe, however, that it would be in the U.S. national interest that the present plans which we understand call for a small conference covering all fields of nuclear application be changed. Our recommendation is to have a topical conference on nuclear power alone, with a limit of perhaps 500 papers. If this is not possible, we would recommend having another all-out competitive Geneva conference along the line of the first two meetings, covering all aspects of nuclear application and containing 2,000 or more papers. In either type of conference, U.S. participation should be sufficiently extensive to present U.S. accomplishments adequately.

(7) Fermi Award

A suggested citation to be used in connection with the Fermi Award to Dr. Oppenheimer has been transmitted to you in a separate letter dated April 27, 1963.

(8) Lawrence Awards

The Committee wishes to congratulate the AEC on the Lawrence Award ceremony. We believe that the selection of the National Academy of Sciences as the site for the presentations was a most appropriate choice.

(9) Reactor Subcommittee

The Reactor Subcommittee of the GAC will visit the National Reactor Testing Station, General Electric at Vallecitos, Atomics International and General Atomic during the week of July 8.

(10) Subcommittee Assignments

Now that the GAC is at full strength it is possible to establish Subcommittee assignments as follows:

<u>Research Subcommittee</u>	<u>Reactor Subcommittee</u>	<u>Weapons Subcommittee</u>
Philip H. Abelson	Manson Benedict	K. S. Pitzer, Chairman
J. C. Warner, Chairman	L. R. Hafstad, Chairman	N. F. Ramsey
John H. Williams	E. P. Wigner	William Webster

(11) Scientific Officer

The 85th meeting will be Dr. Charpie's last meeting with the GAC. We are pleased to report that Mr. Duane Sewell, Associate Director of the Livermore Laboratory, has agreed to succeed Dr. Charpie, with the title of Scientific Officer. His duties will be similar to those of Dr. Charpie. Mr. Sewell will join the GAC at the 85th Meeting.

(12) 85th GAC Meeting

The next meeting of the General Advisory Committee will be held at the Argonne National Laboratory on July 18, 19 and 20, 1963. Agenda topics proposed for that meeting are:

- A. Joint session with the Advisory Committee for Biology and Medicine on Saturday morning, July 20.
- B. Plans for future operation of facilities for producing fissionable material.
- C. Value of research in high energy physics.
- D. Topics related to the ANL program - -
 - a. Status report on all U.S. fast reactor projects.
 - b. ANL evaluation of nuclear rocket program and concepts.
 - c. Tour of ZGS and discussion of ANL high energy physics program.
 - d. ANL-AMU relationship (with Dr. Marshall in attendance if possible).
- E. Reactor Subcommittee report.

(13) 86th GAC Meeting *Sum*

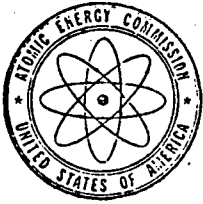
The following meeting of the Committee has been tentatively scheduled for October 20, 21 and 22, 1963, in Washington, D. C.

The Committee regrets that this was our last opportunity to meet with Commissioner Haworth. We wish him all success in his new position.

Sincerely,

Manson

Manson Benedict
Chairman



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

UNCL. BY DOE
NOV 86

COPY NO. 15
May 3, 1963

INFORMATION MEETING 270

4:50 P.M., Thursday, May 2, 1963, Room 1113-B, D. C. Office

1. GAO Request for Materials Relating to Negotiations with NFS

The Commissioners agreed to provide GAO the requested documents with the following qualifications: names of individuals are to be deleted from the Board Minutes; GAO is to be advised that the NFS Executive Summary is confidential and that the information therein is essentially contained in other available documents. The Technical Review Committee Review Report may be provided if requested.
(Vinciguerra)

2. Agenda for May 3 and Week of May 6, 1963

Approved, as revised.

PRESENT

Dr. Seaborg
Dr. Haworth
Mr. Ramey*
Mr. Palfrey
General Luedecke
Mr. Hollingsworth
Mr. Hennessey
Mr. Abbadessa
Mr. Henderson
Mr. Quinn
Mr. McCool
Mr. Vinciguerra
Mr. Kari

DISTRIBUTION

Commissioners
General Manager
General Counsel
Secretary

W. B. McCool
Secretary

*Partial Attendance

At 4 p.m. I gave a talk, "The Atom at Ames," for the dedication of the Ames Laboratory reactor, Iowa State University, in Memorial Union Hall. I was introduced by President James Hilton and Frank Spedding.

I attended a cocktail party (attended by Iowa State regents and others) at the Spedding home and then attended a dinner at Memorial Union. After this I attended a reception for a hundred or more scientists at the Spedding home.

Howard Brown and I were driven to Des Moines and then flew in the Jetstar to Minneapolis. We left at 10:30 p.m. and arrived at 11:30 p.m.

We were driven to Mankota, Minnesota, where we spent the night at the Inn Towne Motel where we arrived (May 4th) at 1:30 a.m.

Saturday, May 4, 1963 - Mankota - St. Peter, Minnesota

We were driven to St. Peter, where at 10:30 a.m. I attended the convocation at Gustavus Adolphus College in Myrum Memorial Fieldhouse. Twenty-five American Nobel laureates and Arne Tiselius, Nils Stahle and Bertil Lindblad (all of the Nobel Foundation) sat on the stage. Stahle and Tiselius spoke, and President Edgar M. Carlson presided.

I attended a luncheon for the same group at the Holiday House, which was hosted by the Mayo Foundation with Charles Mayo acting as toastmaster. This was followed by an interview with O. B. Augustsen, Editor, West Central Daily Tribune, Willmar, Minnesota, and a native of my birthplace, 757 E. Michigan Street, Ishpeming, Minnesota. (Copy of editorial from the West Central Daily Tribune, Willmar, Minnesota, attached.)

After lunch I attended a closed meeting of the laureates at which Tiselius described the Nobel Foundation's desires regarding the laureates' participating in functions using the Nobel name. This is a permissible practice if the function is legitimate.

At 4 p.m., after greetings by Lindblad and Swedish Ambassador Gunnar Jarring, I was introduced by President Carlson. I gave my address, "Our Heritage from Alfred Nobel," at the Nobel Hall of Science dedication, which was held in Myrum Fieldhouse. President Carlson conferred honorary degrees on all laureates except Ralph Bunche and me. We both had already received degrees from Gustavus Adolphus College. I then attended the Dedication Rite at the Nobel Hall of Science, where Tiselius, Philip Hench and Carlson spoke. Pictures were taken of the Nobel group. We then toured the Nobel Gallery of the Nobel Hall of Science.

I attended a reception in the Student Union where I signed hundreds of autographs. A banquet which followed in the Student Union was attended by approximately 1,300 people. President Carlson made some remarks. We then went to Christ Chapel, where, after a greeting by Stahle, we heard Bunche talk on "Peace, Science and Some Paradoxes." I suggested to Carlson that there be annual Nobel Conferences.

Nobelists present during the entire day included: Carl D. Anderson, Walter H. Brattain, Melvin Calvin, Carl F. Cori, André F. Cournand, Peter J. W. Debye, Edward Doisy, James Franck, Philip S. Hench, Robert Hofstadter, Edward C. Kendall, Polykarp Kusch, Edwin M. McMillan, Rudolph Mossbauer, W. P. Murphy, Severo Ochoa, Linus C. Pauling, William Shockley, Wendell M. Stanley, Edward L. Tatum, Arne Tiselius, Harold C. Urey, Georg von Bekesy, Ralph Bunche, and Emilio Segrè.

I spent the night at the Viking Motel in St. Peter.

EDITORIAL

By O. B. AUGUSTSON

Our Meeting With Dr. Seaborg

Last Saturday we attended the dedication of the Nobel Hall of Science at our alma mater, Gustavus Adolphus College at St. Peter. We were thrilled by it all—this conclave of 26 Nobel scientists on that occasion and the beautiful new science hall which we toured and inspected.

However the highlight of a personal nature was our meeting with Dr. Glenn Seaborg, Nobel laureate of 1951 and now chairman of the U. S. Atomic Energy Commission. This special audience was accorded us during the afternoon. The reason? Partly due to our journalistic position but largely because it happens that we hail from the same mining town of Ishpeming on the iron range of Northern Michigan.

Here was a coincidence that an Ishpeming born editor was covering a great event in which a famous Ishpeming born scientist was a prominent figure. It was somewhat natural therefor that we should meet and it was our honor and privilege. Our families lived only two blocks apart in the Ishpeming city. Our fathers were both iron miners.

At this meeting we had with us a copy of the High School annual issued during the Centennial year celebration at Ishpeming in 1954. In the alumni section of that book we were able to show Dr. Seaborg where his father was listed as a member of the class of 1899 and his picture as well. We had much to talk about our boyhood years up there, the old swimming hole, the blueberry plains, the woods and trout streams, and of course, the iron mines.

Dr. Seaborg was a lad of ten years when his family moved to California. As a poor boy he ascended the ladder to great fame. We left the home town at the age of 16 years.

While covering the auspicious event for our own newspaper we also have provided a story for the daily paper at Ishpeming. Thru the courtesy of the publicity department of the college photographs were taken of Dr. Seaborg and your editor and these have also been sent to the old home town newspaper which is naturally interested, as any newspaper is, of any news about former

residents. Mostly of course Ishpeming is interested in anything about Dr. Seaborg, it's most famous son. Incidentally the original family name is the Swedish "Sjoberg" which has been given an equivalent English translation as Seaborg.

We found Dr. Seaborg a very pleasant man and, like so many great personalities, modest and unassuming.

Sunday, May 5, 1963 - St. Peter, Minnesota - D.C.

We were driven to Minneapolis and from here I returned to Washington in the Air Force Jetstar with Senator and Mrs. Hubert Humphrey (also present last evening). Our plane left at 8:45 a.m. and arrived at Andrews Air Force Base at 12:45 p.m.

I worked on AEC papers at home.

Monday, May 6, 1963 - D.C.- Albuquerque, N. M.

At 10 a.m. I presided over Information Meeting 271 (notes attached).

At 11:30 a.m. I met with Jerry Johnson, Brockway McMillan, Jackson (DOD) and Luedecke to discuss the developing difficulties with the Air Force-AEC (NASA) SNAP-50 SPUR agreement. The Air Force alleges that the AEC is not using Air Force contractors with a consequent loss of efficiency. We maintained that their conclusion is premature because decisions have not yet been made.

I had lunch at the Metropolitan Club with former Ambassador to Russia, Llewellyn Thompson, to discuss my forthcoming trip to Russia. He gave me a number of tips on how to handle Russian polemics.

At 2:40 p.m. I presided over Commission Meeting 1929 (action summary attached). We finally came to an agreement on placing the fallout study program at Livermore after much initial opposition from Ramey. We adopted a U-235 production operating level cut to 3700 MW and agreed to send a letter to the President (sent on May 17th) and asked him to delay application until the cut in plutonium production is settled.

I received NSAM 239 from Bundy concerning U.S. Disarmament Proposals.

Accompanied by Watson Davis and Arnie Fritsch, I flew to Albuquerque on TWA flight 169. We left Baltimore at 6 p.m. and arrived at 8 p.m. We were met by Dorothy Schriver of Science Service.

We stayed overnight at the Western Skies Motel.

Tuesday, May 7, 1963 - Albuquerque, N. M.

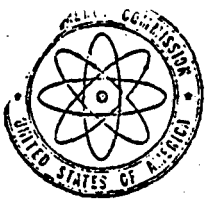
From 9 a.m. to 11:45 a.m. I gave a seminar on "The Transuranium Elements" to a group of 25 selected high school students at Highland High School in connection with the 14th National Science Fair.

At noon I gave a luncheon address on "Peaceful Uses of Atomic Energy" to the Albuquerque Lions Club at the Cole Hotel.

In the early afternoon I gave a repeat seminar to 25-30 high school students at Highland High School.

I then visited the Science Fair (being held in the International Civic Auditorium), which was in the process of being set up by participants. I also visited a neighboring education (industrial) exhibit.

At 4:30 p.m. I held a press conference at the Western Skies Motel. The questions concerned element 104, Project Coach, ROVER, a clearance for Oppenheimer, the excess space budget, the future of civilian nuclear power and fusion and a nuclear merchant marine.



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

COPY NO. 15
May 6, 1963

ENCL. BY DOE
NOV 86

INFORMATION MEETING 271

10:05 a.m., Monday, May 6, 1963 - Chairman's Conference Room, D. C. Office

1. Telegraphic Request from Mr. Glenn Lee, Publisher of Tri-City Herald, Richland, Washington

The Chairman discussed briefly Mr. Lee's query re Mr. Tremmel's participation in the study at Hanford and requested preparation of an appropriate response. (Henderson)

2. SNAP 50--SFUR Agreement

The Chairman noted Dr. Gerald Johnson is meeting with him at 11:30 this morning to discuss this matter. The General Manager said a staff paper will be issued for early Commission consideration. (Fittman/Secy)

3. Allied Chemical Company Contract

In response to the Chairman's inquiry, the General Manager said recommendations will be submitted to the Commission this week. (Secy)

4. Joint Committee Hearings May 3 and 10 on Army Reactors Program

The Chairman suggested that in light of the currently announced increase in funding requirements and other considerations, that the Commission's posture at the hearings should be one of flexibility. In response to the General Manager's comment, the Commissioners agreed that the Bureau of the Budget should be informed, but that the Commission will need to maintain this flexibility at the hearings.

5. Architect-Engineer Design Study for 1000 Megawatt Electric Breeder Reactor

The General Manager said he would keep the Commissioners informed of the progress. (Vinciguerra)

- 6. Chairman's Trip to Albuquerque, New Mexico Today
- 7. Commissioners Falfrey and Ramey's Report on MLF Discussion at NSC, May 3
- 8. FY 64 Program Funds for PLUTO Program

The General Manager reported that as a result of staff review it had been determined that the program cannot be completed with present funding. The Bureau of the Budget has agreed to transfer \$3.2 million from SNMI Funds in order to complete the program through Tory II C. The Commissioners had no objection to the proposed reprogramming. (Abbadessa)

- 9. Lease of 3 Kilograms of U233 to the French

The Commissioners agreed to waive the 10 gram limitation and to send a letter to Mr. Bundy which will suggest the Commission will go ahead in the absence of his objection. (Wells)

- 10. Proposed Letter to Mr. Bundy re Highly Enriched Uranium for West Germany

Dr. Haworth discussed the General Manager's May 3 memorandum with proposed letter to Mr. Bundy and the Chairman requested a review of the letter by Dr. Haworth with staff. (Wells/Betts)

attached on May 18

- 11. NFR-Hanford

The General Manager said he had informed the Joint Committee of the proposed start-up date and revised funding.

W. B. McCool
Secretary

PRESENT

Dr. Seaborg
Dr. Wilson
Dr. Haworth
Mr. Falfrey
Mr. Ramey

DISTRIBUTION

Commissioners
General Manager
General Counsel
Secretary


UNITED STATES GOVERNMENT

Memorandum

Approved A. R. Luedicke
A.R. Luedicke
Date 5/9/63

TO : A. R. Luedicke, General Manager

DATE: May 7, 1963

FROM : W. B. McCool, 

UNCL. BY DOE
NOV 88

SUBJECT: ACTION SUMMARY OF MEETING 1929, MONDAY, MAY 6, 1963, 2:40 P.M.,
ROOM 1113-B, D. C. OFFICE

SECY:JFG

Commission Business

1. Minutes of Meetings 1914 and 1915

Approved, subject to comments by Commissioners Haworth, Ramey, and Palfrey.

2. AEC 859/12 - Livermore Fallout Research Program

Approved, as revised. (Dunham)

The Commission requested: (a) deletion of the FY 1965 financial requirements column on page 11, Appendix "A". (Dunham)
(b) revision of the draft press release in accordance with Mr. Wilson's suggestion. (Dunham)

Commissioner Wilson requested LRL be advised that no commitments have been made regarding the projected FY 1968 operating level. (Dunham)

Commissioner Ramey noted his approval was subject to reservations regarding the scope of the program.

3. AEC 1036/43 - Contract for Operation of the Stanford Linear Accelerator

Approved, as revised. (Vinciguerra)

The Commission requested revision of paragraph 3(c) of Appendix "A". (Vinciguerra)

4. AEC 377/21 - Implementation of Executive Order 10964

Approved, as revised. (Marshall)

The Commission requested the draft letter to the JCAE be augmented. (Marshall)

5. AEC 580/183 - Reduced Production of Enriched Uranium

Approved, as revised. (Baranowski)

The Commission requested the draft letter to the President be revised in accordance with the discussion at the Meeting. The revised letter is to include the recommendation that this matter be the subject of a briefing at the appropriate White House level.
(Baranowski)

6. AEC 994/11 - AEC Industry Participation in the Production and Distribution of Radioisotopes

Discussed.

The Commission requested preparation of discussion papers dealing with isotope case studies based on the Commissioners' revisions in withdrawal criteria. (Aebersold)

Items of Information

1. Harvard University Contract Negotiations
2. Report on Financial Arrangements for NER

cc:
Commissioners

CROSS REFERENCE SHEET

Document # 901887

TITLE OF DOCUMENT U.S. Disarmament Proposals. 5/6/63
2 pages.

This document requires further classification review and has been removed from this folder.

Jeffrey B. Hala
Name

August 22, 1986
Date



14th National Science Fair- May 7, 1963

I gave a talk, "The Creative Scientist--His Training and His Role," which was very, very well received, at the ceremonial opening of the National Science Fair in the Albuquerque Civic Auditorium. I was introduced by Senator Clinton Anderson following remarks by Mayor Archie Westfull, Governor Jack Campbell and Chairman Charles Lanier. There were approximately 3,000 people in attendance, including 400 Science Fair finalists, visiting high school students, high school teachers and the general public. (Later 30,000 copies of my speech were printed in booklet form by the AEC for distribution by Science Service. It was also printed in Science Newsletter.)

I spent the night at the Western Skies Motel.

Wednesday, May 8, 1963 - Albuquerque - Washington

Fritsch and I returned to Washington on TWA flight 168. We left at 8:35 a.m. and arrived in Baltimore at 4 p.m.

I worked on AEC papers at home.

Thursday, May 9, 1963 - D.C.

From 8:30 a.m. to 9:45 a.m. I met with Wiesner, Kaysen, Jerry Johnson, Fisher, Charles Johnson, Fred Schuldt, Haworth and others in Wiesner's office.

I attended Lee Haworth's confirmation hearing as Director, National Science Foundation, and spoke for him.

As a guest of Ed Carter I attended a luncheon by the Committee for Economic Development at the Shoreham Hotel where President Kennedy spoke. Ed says he is going to work on a combination administrative-scholarly post for me to occupy when I return to the University of California--possibly a vice president for research.

I met with Nathaniel Welch, the Federal Representative to the Southern Interstate Nuclear Board.

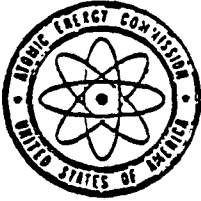
At 3:25 p.m. I presided over Information Meeting 272 .

From 4:15 p.m. to 4:40 p.m. I met with Harry Smyth. I invited him to open the AEC Exhibit in Vienna on May 21st. He asked who might be his chief contact among the Commissioners, as Haworth has been, now that Haworth is leaving. I said I thought it would be Commissioner Tape. He said that Bill Cargo is completing his Vienna assignment after the June meeting of the Board. He is being replaced by Frank Heffner, who is already in International Organizations under Harlan Cleveland. Smyth is moderately well pleased with this replacement, although he regards Cargo as so outstanding that to equal him will be most difficult. He indicated that having both jobs--the Princeton job and the Vienna job--is perhaps too much--and he will have to make up his mind which job to do. He said he will do this within about six to nine months. Wells has suggested that he spend more time in Vienna, and he is considering this possibility. I gather that he leans slightly toward the Vienna job.

At 4:20 p.m. I talked on the phone to Ambassador Dobrynin. He said that he has received a cable from Moscow about the arrangements for my trip to Russia. He said that his Military Attache is already in contact with our people. The Ambassador said the cable stated that everything I proposed about the trip including the program which was given through the American Embassy in Moscow, has been approved exactly as requested. I said we will be leaving at 8 p.m., May 18th, and that Dr. Vitalii Goldanskii will be travelling with us. I again expressed the wish that the Ambassador might be able to go with us. He said he will be going to Russia, but it will be a little later. He expressed the hope that maybe we can get together after my return from Russia. He wished me a pleasant trip and visit.

The Savannah is involved in labor trouble and the reactor was shut down yesterday. I called Commerce Secretary Luther Hodges about the situation and he said he has sent three of his people (Under Secretary Clarence Martin, General Counsel Robert Giles and Maritime Administrator Donald Alexander) to Galveston. If they are unable to reach an agreement with the labor people this afternoon, Hodges expects to issue a statement that they are cancelling the contract with States Marine and that the Savannah will be put in "caretaker" status with the Todd Shipbuilding Company in Galveston. After the contract is cancelled, careful consideration will be given to the problem of who will operate the ship. I said I will want to give this careful thought, especially the idea of turning the ship over to the Navy, because this could set back the whole future of Maritime propulsion. Hodges said he would like to talk with me about this; Bonn is pressing to put the ship in the Navy but Hodges doesn't necessarily feel it should be there. He said he is very discouraged that none of the five or six policies he has presented to labor has been acceptable. I said I feel the Union is being very short-sighted as the whole field is at stake.

I sent a letter (copy attached) to the President saying I will invite Petrosyants to pay a return visit to the United States and offered to see the President before I visit the USSR.



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

OFFICE DIARY
GLENN T. SEABORG
Chr USAEC, 1961-72
29034

901894

COPY NO. 15
May 9, 1963

INFORMATION MEETING 272

3:25 p.m., Thursday, May 9, 1963 - Chairman's Conference Room, D. C.

~~DELETED~~

~~DELETED~~

The Commissioners discussed briefly the directive for an AEC-CIA report. (Reichardt/Wells)

~~DELETED~~

~~DELETED~~

The Commissioners discussed briefly the directive and Commissioners Ramey and Palfrey commented on the exemption which has been granted with respect to one provision of the directive. Mr. Hollingsworth reported that staff comments are in preparation. (Ink)

~~DELETED~~

The Chairman discussed briefly the directive and the Special Committee meeting this morning which he attended, noting the need for preparation of a proposed AEC program for discussion at the next meeting of the Special Committee on June 4. The Chairman noted additionally Dr. Wilson's query with respect to what he, Dr. Wilson, can discuss with Sir Roger Makins on this matter. (Betts)

4. Letter to Senator Pastore re Transfer of Funds for Waste Storage Facility

The Chairman said he would send the letter. (Brown)

5. Joint Committee Hearings on the Army Reactor Program

Commissioners Wilson and Ramey reported briefly on the hearings yesterday and today, noting that AEC will be given an opportunity to comment on the testimony of industry witnesses. The Chairman suggested a review of the program following consideration of the hearings testimony. (Fittman)

(Dr. Haworth entered the meeting)

6. Chairman's Meeting with Messrs. Gerald Johnson, Brockway McMillan and John Jackson re SNAP 50 - SPUR Program

The Chairman discussed briefly his recent meeting with the DOE representatives and Mr. Hollingsworth reported that recommendations on the formal agreement will be forthcoming shortly. (Fittman)

WITH DELETIONS
BY AUTHORITY OF DOE/OS
C. J. [Signature] 11/17/87
REVIEWED BY
Diary 11/17/87

7. Ambassador Smyth's Meeting with the Chairman Today

8. Joint Committee Hearings on NFS, Inc. Contract Arrangements May 14

Commissioner Wilson will testify at the hearings.

✓ 9. May 6 Letter from Senator Stennis re Testimony at Hearings on the Test Ban Negotiations

Dr. Haworth may testify. Dr. Haworth discussed briefly the respective study panels which have been established to draft a white paper.

10. General Manager's May 9 Memorandum re Release of Information on Test Information

The Chairman noted the memorandum for the Commissioners to review.

11. Proposed Reply to Mr. Robert Watson, Chairman, Patent Compensation Board

The Commissioners suggested Mr. Hennessey discuss this matter with Mr. Watson. (GC)

12. Experiment DOUBLE TRACK at NTS

The Commissioners had no objection to Mr. Hollingsworth's request for an authorization to schedule the experiment for Sunday in the event of a postponement on Saturday. (Betts)

13. Assignment of U. S. AEC Representative in Tokyo

The Commissioners had no objection to Mr. Hollingsworth's proposal.

14. Personnel Assignment

15. Study of the Army Reactor Program

Mr. Ramey said he had mentioned at today's hearings the desirability of a study and the Commissioners agreed it should be undertaken. Mr. Hollingsworth said staff will prepare a draft outline for review. (Pittman)

OFFICE DIARY

GLENN T. SEABORG

Chr USAEC, 1961-72

FOLDER-PAGE

29036

-3-

16. Agenda for the Week of May 13

Approved, as revised. (Secy)

PRESENT

Dr. Seaborg	Mr. Hollingsworth
Dr. Wilson	Mr. Hennessey
Dr. Haworth*	Mr. Brown
Mr. Palfrey	Mr. McCool
Mr. Ramey	

*Partial Attendance

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Commissioners
General Manager
General Counsel
Secretary

W. B. McCool
Secretary

MAY 9 1963

EG FILE

ENCL. BY DOE
NOV 86

Dear Mr. President:

I am grateful that you have made it possible for me and my colleagues to fly to Moscow on May 18 in your plane. Some of the outstanding people in our atomic energy program will, as you know, accompany me and I am hopeful that our visit will be rewarding. Ambassador Kohler is developing with the Soviet authorities a schedule which will run from 7 to 10 days. We have suggested to the Ambassador some of the installations which we would particularly like to see.

In view of the reciprocity upon which exchanges with the USSR in the atomic energy field are based, I have in mind inviting Mr. A. M. Petrosyants, Chairman of the State Committee of the USSR Council of Ministers on the Utilization of Atomic Energy, to visit some of the atomic energy installations in this country perhaps next fall. He has never been to the United States and there are many places where unclassified work is being done which I think will be of interest to him and will reflect creditably on our program. The National Laboratories at Brookhaven, Argonne and Oak Ridge and the Lawrence Radiation Laboratory at Berkeley are examples.

It occurs to me that you might be particularly interested in knowing whom he sees while in the United States as well as what installations he visits. I should be very glad to discuss this matter with you, and any other aspects of my forthcoming trip to the USSR.

Respectfully submitted,

(Signed) Glenn T. Seaborg

Glenn T. Seaborg

The President
The White House

AWELLS:ARFRITSCH:es;mc;mj

Friday, May 10, 1963 - D.C.

From 9 a.m. to 12:30 p.m. I was briefed with respect to my Russian trip by State Department and CIA personnel and Chuck Reichardt. Richard Davis (East European Affairs, DOS) briefed us on protocol and the history of political difficulties, Ralph Jones (Exchange Programs with Soviet Bloc, DOS) on the mechanics of the Exchange Program and Chuck Reichardt (CIA) on scientific programs and personnel of the installations we will visit.

The Savannah problem is very acute. At 11:05 a.m. Secretary Hodges called and said that he just talked with Al Kraut who is in Houston, trying to negotiate the Savannah labor matter. They spent several hours with the engineers and got nowhere. The leaders promised that they would not get into the matter but would leave it to the men. Another meeting was called last night, but only three out of 30 showed up. Hodges said that his negotiators have left Houston and will arrive at Andrews AFB at 12:30 p.m., and he would like to call a meeting at 1 p.m. in Dan Martin's office. He also would like Luedecke to attend. They propose to cancel the contract, get the men off the ship and pad and then put the vessel in caretaker status. Later, it will be decided what, if anything, is to be done. I said I hope we can run the ship again. Hodges answered that he would like to say yes, but he will make no commitment at this time. Hodges did say that Alexander is most desirous of this but that he (Hodges) is taking a tougher stand and does not want any of the men allowed on the ship once they get off. If it is run again it will have to be manned by an entirely different crew.

I called Carl Kaysen at 6:15 p.m. to tell him that Commissioner Wilson plans to attend the Stocktake Meeting in England, leaving here about May 23rd, and we are wondering what we can say to the British in connection with NSAM (attached May 9) on testing. There are three areas with which we are concerned: (1) whether we might mention what we have in mind and the approximate date; (2) whether we might mention the fact that we intend to use Johnston Island and not necessarily Christmas Island; (3) whether these matters should be discussed only with Sir Roger Makins and if so, only generally. Carl said he would like to discuss this with Bundy and it might be that it would be taken to the President. He would, however, like to wait as near the date of departure as possible.

Saturday, May 11, 1963 - D.C.

I worked in the office until 4 p.m.

At 10:30 a.m. Carl Kaysen called to say that there seems to be some UK anxiety about the FERRIS WHEEL shots and he wishes to know the estimated target dates now. I said they are scheduled as follows: LIONS DEN (underground) for May 23rd, and ROUND FRAME (surface) for May 29th, the latter being the sensitive one. He asked for my estimate of mean slippage on ROUND FRAME, and I said there should be none for any reason other than weather. He asked if it would trouble us if this date were slipped a couple of days. I said this is a relaxed schedule and I don't think it will, however, we will want to know ahead of time. He said he would like to talk with Bundy about this and call me. He called back in about an hour and said he has talked with Bundy, and it seems more likely that we might want to accommodate the British; and, if we do, it might be in the way of saying that after some discussion we have decided, since these may be viewed as atmospheric tests by others, not to initiate an atmospheric test series and have decided to postpone them. He asked if the Commission will have trouble with this, and I told him I didn't think so. I said we might consider letting the underground shot go (at 17 feet). He said we could do this although he has talked with Harold Brown and their interest is small in comparison with the surface shot. I am not recommending

the underground shot--merely asking about it.

I went to Sears on Wisconsin Avenue with Pete, Lynne and Dianne to buy Helen a Mother's Day present.

I spent the evening reading AEC papers.

Sunday, May 12, 1963

I worked on the commencement addresses I will give at Mundelein and Trinity Colleges on June 5th and June 9th, respectively. I also worked on the index of Man-Made Transuranium Elements as well as reading material on Russia and journals.

Bob Finley visited us in the afternoon.

Monday, May 13, 1963 - D.C.

At 9:45 a.m. I presided over Information Meeting 273 (notes attached).

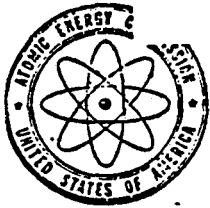
At 11:15 a.m. I presided over Commission Meeting 1930 (action summary attached). Rickover reported to the Commission on his study of the Seed and Blanket Reactor concept for Th-U²³³ which gives a breeding gain of 1.05. He wants an extra \$3.5 million for the study in FY 1964.

At 2:30 p.m. I presided over Commission Meeting 1931 (action summary attached). The Commission approved a letter to Bundy describing various reduced plutonium production levels through FY 1972, including a plan to produce large amounts of Cm-244 for space power. A serious issue is whether NPR should be one of the reactors to be shut down early because the staff claims it is the least economical. This would be a serious blow to WPPSS.

Kaysen called Howard Brown at 3:45 p.m. and said the President has now decided to postpone all three shots indefinitely (FERRIS WHEEL). There is no argument about the shots themselves but rather that this is being interpreted as a signal that the U.S. is starting atmospheric testing. The White House will draft an announcement in the name of the AEC and DOD and will send it to us. This announcement will state that these shots are being cancelled.

I called Kaysen back at 5:50 p.m. after I received his draft AEC-DOD announcement on the cancellation of FERRIS WHEEL. Kaysen said that the President is very explicit about this. Although the President cleared the shot, he did not clear the announcement. Kaysen said there is no question but that the President remembers approving the shot; in fact, he (Kaysen) reminded the President of it. What now bothers the President is the reluctance of the UK and that the Russians now will try to use it as justification for a new series of tests of their own. Kaysen said he is about to write a memo to me and Jerry Johnson explaining that, actually, the shot is only "postponed until further notice," and the memo will give a reason for this action. I mentioned that Ramey was Acting Chairman last Thursday when the matter of this announcement came up. Kaysen said that the announcement has been cleared by the White House; however, he said that once the President had approved the shot, everybody at the White House lost interest in the announcement; and, therefore, no one gave thought to the impact of the announcement. Kaysen said he told Duncan Clark that the President does not want it known why this shot was cancelled.

I reminded Kaysen that we have ROLLER COASTER coming up tomorrow, with the British. He asked whether an advance announcement was made, and I said that it had, both here and in Nevada. Kaysen suggested that, in the announcement after the



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

UNCL. BY DOE
NOV 88

COPY NO. 15
May 13, 1963

INFORMATION MEETING 273

9:45 a.m., Monday, May 13, 1963, Chairman's Conference Room, E. C. Office

1. Testimony for NFS Hearings Tomorrow

The Commissioners approved the draft testimony with revisions. Mr. Ink reported he hoped that as a result of the staff's discussions Saturday with GAO, the GAO report will contain less negative language.

2. Postponement of "Ferris Wheel" Event at NTS

The Chairman discussed the call from Mr. Kaysen on Saturday expressing White House concern at U. K. reaction to the proposed event. The White House has requested temporary postponement of the event. (Betts)

3. May 9 Memorandum from Paul Tompkins re Fallout Report for Federal Radiation Council Meeting this Month

The Chairman noted receipt of Mr. Tompkins' memorandum requesting Commission comments on the draft report by May 21. (Woodruff/Western)

4. General Manager's May 9 Memorandum re Release of Information on U.S. and U.S.S.R. Tests

The Commissioners had no objection to release of the information. The General Manager said he would proceed with appropriate clearances. (Ink)

5. GAC/FSAC Panel Report on High Energy Physics

The Commissioners agreed the report should be released at an early date without Commission endorsement. (Clark)

6. May 10 Letter from Senator Pastore re Increased Costs in NFR Project

The Chairman noted Senator Pastore's letter of inquiry.

7. May 9 Memorandum to Directors of Divisions and Offices, Headquarters re Outstanding Policy Issues

The Chairman took note of the May 9 memorandum and suggested the Commissioners give thought to the policy issues which will require Commission consideration.

8. Appointment of Deputy to Ambassador Smyth

The Chairman discussed briefly his May 10 meeting with Ambassador Smyth and the designation of Mr. Frank Heffner to succeed Mr. William Cargo. The General Manager will determine whether the Joint Committee has been informed about Mr. Heffner's assignment. (Wells)

9. Appropriations Hearings June 5

The Chairman noted staff is attempting to obtain a June 4 or 6 hearing date.

10. Southwest Atomic Energy Associates Proposal

Dr. Wilson spoke briefly of the proposal and the Chairman said the Commission should look at this matter carefully.

11. PRDC Research Program

The General Manager commented on the current discussions and the Commissioners requested they be kept informed, noting the need to consider the matter carefully. (Fittman)

12. Revised NATO Agreement

The General Manager discussed briefly the problem areas and said Dr. Gerald Johnson will be in today to discuss Department of Defense views.

13. Invitation on Second Generation Army Reactor Study

In response to the General Manager's request, the Commissioners said they would review this matter subsequent to their review of the industry testimony of April 10.

Why

14. AEC 1131/4 - Connecticut Yankee and Los Angeles Third Round Proposals
AEC 901/48 - Participation of U. S. S. R. Nationals in International
Conference at BNL
AEC 751/334 - Proposed Amendments to Additional Agreement for
Cooperation with EURATOM

The Commissioners agreed to discuss these matters this week. (Secy)

PRESENT

Dr. Seaborg General Luedecke
Dr. Wilson Mr. Hollingsworth
Dr. Haworth Mr. Ink
Mr. Palfrey Mr. Hennessey
Mr. Ramey Mr. Henderson
 Mr. McCool

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Commissioners
General Manager
General Counsel
Secretary

W. B. McCool
Secretary

UNITED STATES GOVERNMENT

UNCL. BY DOE
NOV 88

Memorandum

TO : A. R. Luedecke, General Manager

DATE: May 13, 1963

Approved A. R. Luedecke

FROM : W. B. McCool, Secretary *W. B. McCool*

Date 5/11/63

SUBJECT: ACTION SUMMARY OF MEETING 1930, MONDAY, MAY 13, 1963, 11:15 A.M.,
ROOM 1113-B, D. C. OFFICE

SECY:JCH:MK

Commission Business

1. Oral Report on Seed and Blanket Study

The staff will look at the sleeve design concept as suggested by Commissioner Wilson. (Pittman)

The Commission noted the following points raised for consideration by Admiral Rickover:

- a. the need for an additional \$3.5 million in FY 1964;
- b. the desirability of making arrangements with a utility for construction of the project; and
- c. authorization in FY 1965 to proceed with arrangements for construction of the project.

(Pittman)

2. AEC 381/55 - Industrial Chemical Processing

Approved, as revised. (Vinciguerra)

The Commission did not accept the fall back position as set forth in paragraph 6.B.III regarding rights to cost information.

(Vinciguerra)

The Commission requested that a meeting with representatives of Bechtel Corporation and NFS be held at a proper time. (Secretary)

Commissioner Ramey requested that the staff consider recommendations for a possible compromise position between those expressed in paragraphs 6.B.I and 6.B.III for Commission consideration at an early date. (Vinciguerra)

3. AEC 331/56 - Reasonable Charges for Industrial Chemical Processing

Approved, as revised. (Baranowski)

The Commission requested deletion of Recommendation b and adopted the following as Recommendations b and d:

"b. Note that the Commission would not consider that any terms and charges that are considered reasonable solely because mutually agreed upon by NFS and a utility would be binding upon the Commission in the event of a request by another utility for determination of reasonable terms and charges for similar material;

"d. Note that, if the Commission determines, at the request of a utility, that the NFS terms and charges for processing a fuel of specific characteristics are reasonable, those terms and charges shall be considered to be reasonable during the contract period or such part of the contract period as the Commission determines such terms and charges to be reasonable and will not be later determined to be unreasonably high for that contract or in the event of a request by another utility for determination of reasonable terms and charges for essentially the same fuel during the period of the initial determination."

(Baranowski)

cc:
Commissioners


UNITED STATES GOVERNMENT

Memorandum

UNCL. BY DOE
NOV 86

TO : A. R. Luedcke, General Manager

DATE: May 14, 1963
Approved A. R. Luedcke

FROM : W. B. McCool, Secretary 

A. R. Luedcke
Date 5/15/63

SUBJECT: ACTION SUMMARY OF MEETING 1931, MONDAY, MAY 13, 1963, 2:20 P.M.,
ROOM 1113-B, D. C. OFFICE

SECY:MK

Commission Business

1. AEC 337/41 - U.S.-Indian Agreement for Cooperation on Tarapur Atomic Power Station

Approved. (Wells)

2. AEC 997/78 - Proposed Safeguards Arrangement with Government of India

Approved, as revised. (Wells)

The Commission requested preparation of a letter advising the JCAE of the proposed course of action. (Wells)

The Commission had no objection to your recommendation that the following phrase, starting on line 3 of the Appendix be deleted: "...and to the extent consistent with domestic United States Law,..." (Wells)

3. AEC 997/77 - Negotiating Position for Placing Japanese Agreement Under Scope of IAEA Safeguards

Approved, as revised. (Wells)

The Commission requested that section (b) of paragraph 8 be deleted. (Wells)

Commissioner Ramey requested further information on policy applicable to placement of other agreements under IAEA safeguards. (Wells)

May 14, 1963

4. AEC 890/96 - Power Reactor Fuel Inventories for U. S. Fueled Reactors Abroad

Approved, as revised. (Wells)

The Commission requested that the unirradiated uranium to be provided shall not exceed 20 percent in enrichment. (Wells)

Commissioner Ramey requested a report on the total quantity of unirradiated enriched uranium which may be involved. (Wells)

5. Negotiations With IAEA and the Government of Japan

The Commission had no objection to your recommendation.

6. AEC 352/42 - Transfer of Materials to the U.K. for Research and Development Purposes

Approved. (Betts)

7. AEC 580/184 - Plutonium and Tritium Production Planning

Approved, as revised. (Baranowski/Betts/Fine)

The Commission requested appropriate revisions in the draft letter to Mr. Bundy for review by the Commissioners. (Baranowski)

The Commission requested that no anticipatory discussions be held with BPA until the White House has been informed. (Baranowski)

The Commission noted the establishment of a study group to analyze further the figures on operating and decremental costs. (Baranowski/Abbadessa)

Item of Information

NTS Events

cc:
Commissioners

shot, we refer to it as perhaps a short-lived chemical tracer, etc. He asked that we call him with the proposed announcement. I said another problem which will require some very difficult decisions and sensitive handling deals with the curtailment of production of plutonium and U-235 and possible involvement of the NPR. We decided to discuss this over lunch tomorrow at the White House Mess.

I called Kaysen again at 6:10 p.m. and told him that we have a responsibility to notify the JCAE about the cancellation of FERRIS WHEEL before they see it in the newspapers. Kaysen said that we should tell them that it is being cancelled because there were some signs that the Soviets might use this as a signal for starting a large atmospheric series test; in fact, this is what he is saying in the memo he is sending us. Kaysen asked whether we might delay notifying the JCAE until tomorrow. I said this could really upset them. I said we will play this in a very low key. We will tell them tonight that it is being cancelled and we will send someone over the first thing in the morning to explain it more fully. Kaysen agreed to this line of action.

I spoke to Ramey about the necessity for his supporting the President on issues like the test ban as a result of the statements he made opposing it to Senator Symington's assistant. Symington repeated it at a hearing of the Stennis Preparedness Subcommittee in executive session.

Helen and I attended a reception for Lee Haworth and his fiancée, Irene Benek, at the Wiesners. There were many PSAC members attending.

Tuesday, May 14, 1963 - D.C.

I called Kaysen at 9:30 a.m. regarding the cancellation of the three shots of FERRIS WHEEL. I said our people have heard radio announcements that the White House has denied any connection between the cancellation and the Khrushchev note. Kaysen said we should take the position that we knew nothing about a Khrushchev note, and all that we do know is what we have been told. He said he will get the memorandum (copy attached) that he mentioned yesterday so that we are informed officially. I said that Dwight Ink just talked with Salinger and that Salinger said they made no such formal denial. Kaysen stated that Salinger is not going to admit a connection, either. This is a situation "where we are trying to have it both ways."

I had lunch with Kaysen at the White House mess to brief him on the plutonium and U-235 production curtailment problems, my stance on the test ban in connection with my Russian trip, etc.

At 3:30 p.m. I presided over Commission Meeting 1932 (action summary attached). The Commission approved the staff's negotiating position on the Los Angeles Department of Water and Power contract--that is, to offer them \$8 million of the request for \$8.5 million for design.

The Commission met with Ken Davis of Bechtel, T. S. Runion of NFS and others, to negotiate the degree to which the Commission can have access to their design and cost figures and make them available to the public (to prevent a monopoly). We succeeded in negotiating a compromise where AEC gets complete confidential access and can make some material, such as important broad aspects, publicly available. Commissioner Wilson, Runion and others testified before the JCAE regarding the NFS project.

I returned Edwin Land's call at 6:05 p.m. He told me he is sending me two Polaroid cameras and color film for my trip to Russia.

THE WHITE HOUSE

WASHINGTON

DC FILE

ENCL BY DOE
1988

May 14, 1963

MEMORANDUM FOR

The Honorable Glenn Seaborg
Chairman
Atomic Energy Commission

Dr. Gerald W. Johnson
Assistant to the Secretary of Defense

The President has directed that the FERRIS
WHEEL shots, scheduled for the end of
May, be postponed until further notice.

McGeorge Bundy

McGeorge Bundy

UNITED STATES GOVERNMENT

Memorandum

UNCL. BY DOE
NOV 86

TO : A. R. Luedecke, General Manager

DATE: May 15, 1963

Approved A. R. Luedecke

FROM : W. B. McCool, Secretary

A. R. Luedecke

Date 5/15/63SUBJECT: ACTION SUMMARY OF MEETING 1932, TUESDAY, MAY 14, 1963, 3:30 P.M.,
ROOM 1113-B, D. C. OFFICE

SECY:JFG

Commission Business

1. AEC 25/258 - Proposed Air Force Safety Rules
Approved. (Betts)
2. AEC 25/259 - Proposed Air Force Safety Rules
Approved. (Betts)
3. AEC 764/136 - Agreement for Cooperation with NATO
Approved, as revised. (Wells)

The Commission requested the letter of transmittal to the State Department recommend the desirability of discussions at appropriate U. S. levels on means of improving security inspection procedures and practices by United States representatives. (Wells)

The Commission requested that paragraph 10b be revised to note that justification for inclusion of the communication of military reactor information in the Technical Annex is subject to Commission review. (Wells)

The Chairman also requested an appointment be arranged with Ambassador Finletter. (Wells)

4. AEC 751/334 - Proposed Amendments to Additional Agreement for Cooperation with EURATOM
Approved as revised. (Wells)

The Commission requested appropriate revisions in the Appendix. (Wells/Hennessey)

May 15, 1963

5. AEC 901/43 - Participation of U.S.S.R. Nationals in International Conference at BNL

Approved. (Wells)

The Chairman requested appropriate information for possible discussion on reciprocity with Soviet officials. (Wells)

6. AEC 180/23 - Low Level Solid Radioactive Waste Burial

Approved, as revised. (Tremmel)

The Commission requested appropriate revisions in paragraphs 2 and 3 of the letter to Nuclear Engineering Company (NECO). (Tremmel)

The Commission requested paragraph 2 of the public announcement be revised to mention "low-level" wastes. The announcement is to be augmented to reflect the safety requirements. (Tremmel/Clark)

Commissioner Raney requested cost data on the Livermore Radiation Laboratory (LRL). (Tremmel)

Mr. Ink noted staff would "double check" the safety of NECO's sea disposal procedures.

7. AEC 1131/4 - Connecticut Yankee and Los Angeles Third Round Proposals

Approved. (Vinciguerra)

The Commission established a position calling for a design assistance ceiling in the range of \$8.0 million to Los Angeles Department of Water and Power, and requested that staff continue negotiations. (Vinciguerra)

8. AEC 194/43 & AEC 194/44 - Renewal of Allied Chemical Contract

Discussed.

The Commission requested the matter be rescheduled. (Secretary)

I sent my biweekly report (copy attached) to the President.

Wednesday, May 15, 1963 - D.C.

Kaysen called at 10 a.m. to tell me that I have an appointment with the President at 9:45 a.m., Friday, in connection with my trip to Russia. Regarding the high-yield bomb, Kaysen said he talked with Bundy, and their impression is that AEC is right. However, before freezing the position, they feel there should be a meeting which has been scheduled for Tuesday, May 21st. (The May 21st meeting which was held in my absence resulted in NSAM 245.) It is impossible to do it this week before my take-off for Russia and it is felt it would be too long to wait until my return. I said Haworth and Betts can represent the AEC.

At 10 a.m. I presided over Information Meeting 274 (notes attached).

At 11:30 a.m. I presided over Commission Meeting 1933. The Commission accepted my recommendation that the decision to exercise the option of extending the contract with Allied Chemical Company be postponed. The Commission requested a meeting with representatives of Allied and possible discussions with other interested parties prior to a final decision on this matter, and Commissioner Ramey requested the cost figures be further analyzed to establish greater comparability and that they reflect consistent application of policy.

I had lunch with Frank Long at the Roger Smith Hotel to discuss the test ban status, preparatory to my Russian trip.

At 2:45 p.m. I presided over Commission Meeting 1934 (action summary attached) to preview the FY 1965 budget.

The Commissioners had a discussion with the General Manager regarding the deficiencies in our method of selecting contractors--through the use of selection boards. There are difficulties ahead because a Chicago Operations Office board selected General Electric for the design of a 1,000 MWe fast reactor, thereby posing a monopoly which, due to the system, the board ignored.

Helen, Lynne, Dianne and I attended the wedding of Lee Haworth and Irene Benik, performed by Father Ted Hesburgh, at St. Matthew's Cathedral. Later we attended the reception at the Mayflower Hotel.

Thursday, May 16, 1963 - D.C.

At 9 a.m. in Senator Pastore's office, I made a TV tape recording with Senator Pastore which will be broadcast on a Providence, Rhode Island, TV station tomorrow night.

At 11 a.m. I presided over Commission Meeting 1935 (action summary attached). We finished the FY 1965 budget preview, which is due at the end of the month. This budget cuts out the MCR, curtails SNAP-50, etc.

I had lunch with John McCone at the Metropolitan Club where we discussed my Russian trip, the French rumor of collaborating with West Germany on the gaseous diffusion production of uranium-235, etc.

I made calls to Jane Hall (LASL), Robert Henderson (Sandia) and Jerry Johnson to be sure they were aware that the President is very desirous that nothing be said about our plans for testing next year while they are attending the Stocktake meeting in

US DOE ARCHIVES
326 US ATOMIC ENERGY
COMMISSION

DC FILE

RC _____
Collection GT Seaborg (32476)

May 14, 1963

Box 177

Folder Report to White House

~~INTERNAL AND CONFIDENTIAL~~

Dear Mr. President:

I have the pleasure of submitting to you the regular bi-weekly report on significant developments in the atomic energy program:-

1. Congressional Hearing (Reclassified)

On May 8-10, the Joint Committee on Atomic Energy held closed hearings on the AEC's program for development of compact nuclear power reactors for remote sites and for mobile military applications. In addition to AEC witnesses, representatives of Army, Navy and industrial contractors were heard. Immediately prior to the hearings, the Commission was informed that the total estimated cost of the compact nuclear power program had risen from \$52 million to approximately \$72 million. In view of these increased costs, I have requested that a study be made of the total Army reactor compact program. This study will be similar to the one currently under way with respect to the Systems for Nuclear Auxiliary Power (SNAP) program.

During the Joint Committee is holding open hearings on a proposal by the Nuclear Fuel Services, Inc. of New York, to construct a private plant for the chemical processing of nuclear fuels. The Commission has for several years been hopeful that private reprocessing services could be provided and is encouraged by the progress toward this end made by Nuclear Fuel Services, Inc. and a number of its potential customers in developing mutually agreeable arrangements under which such reprocessing services would be provided.

The JCAE has advised us of public hearings on June 3 and 4 regarding fallout, particularly government plans for counter measures in the event of high fallout levels. The Federal Radiation Council is coordinating the government's presentation.

The AEC anticipates an early appearance before the Senate Preparedness Subcommittee as a part of current inquiries on the effect of a nuclear test ban. Our preparations are being coordinated with the Departments of State and Defense.

2. Foreign Reactor (Declassified)

In several of my past reports I have discussed the negotiations which have been under way for many months between the United States and the Government of India on the establishment of appropriate safeguards of nuclear materials. I am pleased to report that acceptable language has been developed with the Government of India, providing for agreement in principle that the parties will negotiate an arrangement with the IAEA for implementation of safeguards on the Tarapur reactor project. (The Tarapur reactor project consists of two, 190 megawatt power reactors to be completed by 1967.) Successful completion of the negotiations on the remaining aspects of the Agreement for Cooperation will represent the first occasion on which a government has agreed in principle to accept IAEA safeguards on large reactors. It also represents a major contribution in the position of the Indian Government which initially was unwilling to accept any IAEA involvement in the proposed arrangement. If arrangements are finally made for constructing the two Tarapur reactors, this should have significant impact in Asia. I also feel that successful completion of these arrangements will not only further the U.S. policy with respect to safeguards but will reflect U.S. leadership in reactor technology.

3. Proposed U.S.-Japan-IAEA Trilateral Safeguards Agreement
(Declassified)

Discussions were held during the week of May 6-10, in Vienna among representatives of the United States, Japan and the International Atomic Energy Agency on a draft trilateral agreement under which IAEA safeguards would be applied to nuclear facilities and materials transferred to Japan by the United States. The United States and Japan reached substantial agreement on the draft during a series of meetings held in Tokyo the week of April 15. It is hoped that agreement with IAEA will be achieved during the present series of meetings so that a completed draft can be presented to the IAEA Board of Governors meeting in June for Board approval. Safeguards are intended to assure that no material or equipment is diverted to non-peaceful uses. U.S. authorized safeguards are presently in effect on U.S. supplied material and equipment in Japan.

4. Highlights of the Sixth Annual Report of Director ^{OF AEC} _(Declassified)

I recently received the Sixth Annual Report of Director - the six-nation organization within the European Common Market responsible for the development of the peaceful uses of atomic energy within the Community. I found the report to be extremely interesting and of sufficient importance to call to your attention a few of its highlights.

Specifically, the Report revealed:

- A. The adoption by Euzetou of a \$425 million Second Five-Year Research Program. (This represents a 100 per cent increase over the First Five-Year Program.)
- B. An expansion of research and other activities.
- C. A production, based on recently completed studies, that nuclear power stations will be reasonably competitive with other sources of power in certain areas between 1963 and 1967 and throughout the Community by 1968-1970.
- D. That "Thurston has now acquired sufficient experience and insight for the U.S.-European Agreement to be tantamount to an Atlantic partnership in the nuclear field" -

3. E.J. SAVANNAH (Theoretical)

Upon refusal to obey the order to restore duty services on the MS SAVANNAH, the Department of Commerce ordered all engineering officers to be laid off. This has been done. The safeguarding of the reactor plant in its present shutdown and depressed condition was immediately taken over by members of the States Marine nuclear shore staff. At present, the Department of Commerce is considering possible courses of action with respect to the future of the SAVANNAH. It must be recognized that the SAVANNAH will be out of service for at least four to six months while new personnel are being trained, and possibly much longer. Arrangements for such training have not as yet been established.

It is ironic that the SAVANNAH should become immobilized at a time when most of the earlier problems have been adequately resolved and in view of the reassignment of interest in atomic propulsion within the nuclear industry. The Commission earnestly hopes that the problem of continued operation can be resolved soon since a "teething" of the SAVANNAH could conceivably delay the utilization of atomic power in this field for a number of years.

DOE ARCHIVES

6. Federal Reorganization to the Southern Interstate Nuclear Board

The Bureau of the Budget forwarded to me your letter to Mr. Nathaniel Welch appointing him as the Federal Representative to the Southern Interstate Nuclear Board. In accordance with your instructions,

the Commission has offered its services to Mr. Welch in the performance of his duties. I had the opportunity to meet Mr. Welch last week and as a result of our discussion feel that he will be of real value to your Administration in its relations with the Southern Interstate Nuclear Board.

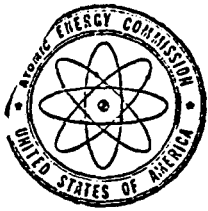
Respectfully submitted,

(Signed) Glenn T. Seaborg

Glenn T. Seaborg

The President
The White House

DOE ARCHIVES



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

UNCL. BY DOE
NOV 86

COPY NO. 15
May 15, 1963

INFORMATION MEETING 274

10:00 a. m., Wednesday, May 15, 1963 - Chairman's Conference Room, D. C.

1. Working Paper re MLF

Mr. Palfrey discussed briefly the current draft.

2. Strictures on Discussions with the U. K.

The Chairman said in a conversation with Carl Kaysen, White House staff, yesterday, he agreed there should be no discussions of U. S. test planning during the U. S. /U. K. stocktake meetings next week. The Chairman requested a list of the U. S. representatives and said he would talk to the key people. (Brown/Betts)

3. Decision on Development of High Yield Weapon

The Chairman said Mr. Kaysen informed him the White House wishes to discuss this matter at a meeting on Tuesday, May 21, which Dr. Haworth will attend.

(Mr. Palfrey left the meeting)

4. Chairman's Discussions with Carl Kaysen re Plutonium and U-235 Production and the Allied Chemical Contract Matter

5. Stennis Committee Hearings on Test Ban Negotiations

The Chairman said Mr. Palfrey will represent the Commission.

6. May 28 Meeting in Florida re Key West Saline Water Project

The Chairman noted that Mr. Ramey will attend.

7. Submission of Clarifying Statement to Joint Committee re NFS Costs

Mr. Ramey suggested and the Commissioners agreed that in light of the testimony at yesterday's hearings, the record should be carefully reviewed and a clarifying statement submitted to the Joint Committee. (Abbadessa)

8. Appropriations Hearings Scheduled for June 4

9. Draft Letter re U-235 for French Submarine Prototype

The Chairman said he would sign the letter after the Commissioners' review. (Brown)

10. Letter to Bureau of the Budget re Cost Principles

The Chairman noted the letter had been reviewed and he would sign it today. (Brown)

✓ 11. Letter to Secretary of Defense re Navy Comments on MLF Matter

The Chairman noted the Commissioners had reviewed the letter and he would sign it today. (Brown)

12. Commission Review of Contract Matters

Referring to the May 7 Activity Digest Report on the status of the 1,000 megawatt (E) fast reactor design study, the NRDS service support contract and others, the Chairman noted these contracts as examples of the need for a system to flag special contract matters for the Commission's information and consideration; on an informal basis prior to the submission of a formal recommendation. The General Manager said he had intended to submit staff papers on the FARET and Step A-E contracts today, but in light of this comment, he would bring these items to the Commission for informal discussion without recommendations. The Chairman requested discussion without recommendations. ~~The Chairman requested discussion today or tomorrow.~~ Additionally, the Commissioners requested a review and report on the contract selection system for early discussion with the Commission; having in mind, for example, that in certain cases it would be useful for the Commission to discuss with the staff the criteria to be included in proposed invitations.

13. Mr. Ramey's Discussion Last Week with Commonwealth Edison Officials

Mr. Ramey commented briefly on his discussion with Mr. Willis Gale, Commonwealth Edison, and said company officials will be happy to come to Headquarters in June to discuss with the Commissioners the possibility of additional nuclear plant construction. (Fittman/Secy)

14. Mr. Ramey's May 9 Memorandum re Fact Books for Use in Congressional Hearings

Mr. Ramey noted the usefulness to the Commissioners of fact books in connection with their attendance at Congressional hearings, and the General Manager said arrangements will be made to furnish these materials to the Commissioners in advance of the hearings. (Ink)

✓ 15. NSAM 240 attached May 9.

The Commissioners discussed briefly with Mr. Reichardt the draft AEC-CIA letter to the President, and the Chairman said he would add a note that he will discuss this matter with Mr. Goldschmidt during the Chairman's visit to Paris and will inform Mr. McCone of his intention to do so. (Brown)

16. Status of the N. S. SAVANNAH

The General Manager reported briefly on the meeting he attended at the Commerce Department recently. Secretary Hodges is considering alternate courses of action including:

- (a) Takeover by American Export.
- (b) Operation by civil service personnel under Maritime Administration.
- (c) Transfer of the vessel to the Navy or Coast Guard.

The General Manager will attend a meeting tomorrow, and if it is concluded that American Export will not accept the vessel, he will suggest transfer of the vessel's staff group to Babcock-Wilcox to assist in reactor maintenance pending a decision on operation of the ship. Mr. Ramey suggested consideration of making some reactor improvements during the period of non-operation.

PRESENT

DISTRIBUTION

Dr. Seaborg	General Luedecke	Commissioners
Dr. Wilson	Mr. Ferguson	General Manager
Mr. Palfrey*	Mr. Brown	General Counsel
Mr. Ramey	Mr. Reichardt**	Secretary
	Mr. McCool	

*Partial attendance

**Attendance for Item 15 only

Memorandum

This document consists of 3 pages
No. 1 of 28 Copies, Series A

TO : A. R. Luedecke, General Manager

DATE: May 16, 1963

Approved W. B. McCool
A. R. Luedecke

FROM : W. B. McCool, Secretary *[Signature]*

Date May 17, 1963

SUBJECT: ACTION SUMMARY OF MEETING 1934, WEDNESDAY, MAY 15, 1963, 2:45 P.M.,
ROOM 1113-B, D. C. OFFICE

SECY:JFG

UNCL. BY DOE
NOV 86

Commission Business

ARC 1132 - FY 1965 Budget Preview

The Commission, in considering a planning estimate for FY 1965 in the range of \$3.3 billion, tentatively approved the \$3.8 billion projection figures with the modifications listed below:

<u>Operating Expenses</u>	<u>(In Millions)</u>
Special Nuclear Materials	\$448.0
Weapons	
Testing of Nuclear Weapons	130.0
Reactor Development	
Civilian Power Reactors	100.5
Power Demonstration Program	19.2
Merchant Ship Reactors	5.0
General Reactor Technology	67.0
Nuclear Safety*	42.0
Advanced Systems	30.0
Operational Services	6.0

* This figure is subject to final Commission approval of funds for the SNAP Program.

Operating Expenses (continued)

(In Millions)

Reactor Development (continued)

Rocket Propulsion Reactors. \$121.0
Satellite and Small Power Sources. 36.0
Army Power Reactors. * 14.4

Plant

Special Nuclear Materials. 42.0

Reactor Development

Civilian Power Reactors 44.0
General Reactor Technology) 22.0
General Support Facilities)

Satellite and Small Power Sources

SNAP-50 Reactor Test Facility -0-

Army Reactors Program

Antarctic Reactors -0-

Equipment

Weapons 83.0

The Commission noted:

a. that funds for the NJRA project should not be included in the \$3.3 billion estimate but should be isolated as a policy issue in the cover letter to the LOB;

b. the desirability of including funds for preparation for off-continent tests in alternate years beginning in FY 1966;

c. the projection would probably not allow for more than 25 underground events per year.

A. R. Luedecke
Action Summary - 1934

-3-

May 16, 1963

The Commission requested consideration be given to the possibility of renegotiating the second phase of the Euratom Program looking to the reorientation of funds in support of reactors other than thermal water reactors. (Pittman/Walls)

The Commission requested discussions with Dr. Harold Brown regarding the desirability of including funds for the MCR in the FY 1965 projection. In the event funds are not to be included, discussions are to be held with the JCAE and the contractors in that order and steps undertaken to withdraw the request for funds in the FY 1964 budget. (Pittman/Abbadessa)

Commissioner Ramey expressed reservations that funds are not included in the minimum projection for the large Central Station Seed and Blanket Concept.

Commissioner Ramey also expressed his reservation on the inclusion of funds for the Merchant Ship Reactors Prototype.

Commissioner Ramey requested a brief report on the allocation of funds within the Cooperative Power Demonstration Program and additional information on the Gas-Cooled Reactor. (Abbadessa)

cc:
Commissioners

UNITED STATES GOVERNMENT

Memorandum

ENCL. BY DOE
NOV 86

TO : A. R. Luedecke, General Manager

DATE: May 17, 1963

Approved W. B. McCool
A. R. Luedecke

FROM : W. B. McCool, Secretary

Date 5/20/63

SUBJECT: ACTION SUMMARY OF MEETING 1935, THURSDAY, MAY 16, 1963, 11:05 A.M.,
ROOM 1113-B, D. C. OFFICE

SECY:JCH

Commission Business

AEC 1132 - FY 1965 Budget Preview

The Commission approved a preview planning estimate of approximately \$3.294 billion for FY 1965 to be appropriately adjusted for Goods and Services on Order (GSO). (Abbadessa)

In approving the FY 1965 Planning Estimate, the Commission accepted the \$3.8 billion projection figures with the following modifications in addition to those made at Meeting 1934:

Operating Expenses

(In Millions)

Physical Research	\$268.0*
Biology & Medicine.	88.0
Training, Education & Information	21.3
Isotope Development	14.0
Plowshare	27.0
Program Direction & Administration	78.5

Plant

Physical Research

High Energy Physics	49.8
Total Physical Research Excluding all Physics and Math Projects	18.2

* A portion of the increment approved over the minimum projection is to be applied to Basic Nuclear Engineering; however, Controlled Thermonuclear Research is to be maintained at the \$26.1 million planning level.

A. R. Luedecke
Action Summary 1935

May 17, 1963

<u>Plant (continued)</u>	<u>(In Millions)</u>
Biology & Medicine	\$ 13.6
Isotope Development	
Fission Product Power Source Fabrication Facility - Hanford	5.0
Reactor Development	
General Reactor Technology) General Support Facilities)	28.0

The Commission authorized you to allocate approximately \$10.0 million of the approved total where appropriate.

The Commission noted that staff would have flexibility in allocating the approved projections within individual programs where appropriate.

Mr. Ramey noted his reservation on the inclusion of funds for the Biomedical Laboratory, Livermore, in the Biology & Medicine FY 1965 projection.

cc;
Commissioners

England.

At 3:45 p.m. I presided over Commission Meeting 1936 (action summary attached). We decided not to award the 1,000 MWe fast reactor design study contract to G.E. (the contract board selected) but to let G.E. go ahead with the uranium oxide fuel design fast reactor (under way) and to ask the remaining three, Westinghouse, Combustion-Engineering and Allis Chalmers, to each design a different fuel type fast reactor.

Dave Robinson called to say that Jerry Wiesner has taken a copy of the Ramsey Panel Report (on high energy physics) to the President and the President has approved its release.

Dave said he hopes that we can arrange for the release to be made from the AEC.

I sent a letter to President Kennedy (copy attached) suggesting that we lower the rate of electric power from 4850 to 3700 MW in the U-235 production curtailment, pending his decision on plutonium reduction curtailment.

I had a visit from Dr. Norman Topping (President, University of Southern California). This was a social call and we discussed University matters, etc.

Friday, May 17, 1963 - D.C.

From 9:45 a.m. to 10:15 a.m. I met with President Kennedy to discuss my Russian trip. I told him there will be ten AEC members in the party, including me, and described the composition of the group in a general way. I mentioned that we will be flying nonstop which is an unusual concession by the USSR and an attempt will be made to make a record flight. I told him I have given the USSR a list of places we want to visit, including two that have never been visited by people from the West before. I said that the entire list has been approved.

I said this might make it possible to make some interesting observations. The President inquired about the return visit of Petrosyants and his group that I referred to in my letter to him, and I said I felt this was necessary. He said he hoped they wouldn't visit any sensitive areas and I said I thought that on balance we will get more out of the exchange of visits than they. I mentioned my expected visit to the Radium Institute in Leningrad and indicated the significance of some of the work that has been going on there. I told him about the naming of element 101 "mendelevium" after Dmitri Mendeleev, and the significance of this in improving relations and our reception in the USSR. I indicated to him that the visit might offer an opportunity for improving relations with the USSR and that we are looking forward to this possibility, although I didn't mention the test ban negotiations per se.

I told the President I will be returning through Paris and I am trying to arrange to have lunch with a French official, who is a friend of mine of long standing, in order to explore with him the status of French developments such as the gaseous diffusion plant for making U-235 and possible West German involvement. The President indicated he would like to see a report on the results of the visit when I return.

At 11:10 a.m. I presided over Information Meeting 275 (notes attached). We discussed with the General Manager the problem of a choice of contractor for the NRDS. The contractor selection board is recommending Pan American, which could cause a monopoly problem since they run Cape Canaveral. We decided, however, to go ahead rather than reverse the board's decision. We reiterated that the procedure must be changed and improved.

UNITED STATES GOVERNMENT

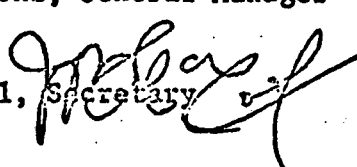
Memorandum

UNCL. BY DOE
NOV 86

TO : A. R. Luedecke, General Manager

DATE: May 17, 1963

Approved A. R. Luedecke

FROM : W. B. McCool, Secretary 

Date 5/18/63
A. R. Luedecke

SUBJECT: ACTION SUMMARY OF MEETING 1936, THURSDAY, MAY 16, 1963, 3:45 P.M.,
ROOM 1113-B, D. C. OFFICE

SECY:MK

Commission Business

1. A-E Contractor Selection for FARET

The Commission had no objection to your recommendation.
(Vinciguerra)

2. A-E Contractor Selection for STEP

The Commission had no objection to your recommendation.
(Vinciguerra)

3. 1000 MW(e) Fast Reactor Study

Discussed.

The Commission noted the staff's intention to (1) modify the scope of the study to eliminate the restriction to oxide fuel and to cover only the core and primary system of 1000 MW(e) systems rather than entire 1000 MW(e) and 200 MW(e) prototypes plants, and (2) negotiate contracts with Allis-Chalmers, Westinghouse and Combustion to study different systems. In addition, the staff, at an appropriate time would ask GE, under its present contract on fast oxide breeders, to make a similar study in its area of interest. (Pittman)

4. NRDS Service Support Contract

Discussed.

The Chairman commented on the need for careful consideration.

5. Letter to Secretary Zuckert re ENAP-50/SPUR Program

The Chairman said he would sign the letter.

The Commission requested NASA be given the opportunity to see the letter prior to its dispatch. (Pittman)

6. Base Charges for Plutonium Nitrate

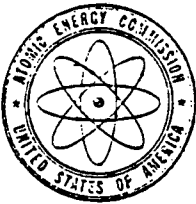
Discussed.

This matter will be reconsidered at the Information Meeting on May 17.

7. Submission of Clarifying Statement to JBAE re NES Costs

Commissioners Wilson and Palfrey noted there is no longer a need to submit a statement and requested Mr. Abbadessa to discuss the matter with Mr. Ramey. (Abbadessa)

cc:
Commissioners.



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

901914

MAY 17 1963

DC FILE

OFFICE DIARY
GLENN T. SEABCRG
Chr USAEC, 1961-73
FOLDER-PAGE 29083

Dear Mr. President:

The Commission has recently completed studies and reached conclusions on the adjustments required in the Atomic Energy Commission's operating plans to meet the revised June 30, 1972 production planning objective for enriched uranium as directed by your letter of February 2, 1963. Our plans for implementing these adjustments to the AEC production program are presented herein.

Your letter also requested that DOD and AEC submit joint recommendations on a similar 1972 production planning objective for plutonium and tritium. As agreed in an exchange of letters with Mr. Bundy, recommendations on the plutonium and tritium program cannot be submitted pending your decisions on the tactical and anti-submarine weapons requirements study. In the interim, we are transmitting to Mr. Bundy the plutonium and tritium production information he requested in his March 5 letter to expedite final decisions on requirements for these materials.

On the basis of current projections, we have concluded that the AEC can best meet its objective of supporting both the military and non-military enriched uranium requirements by curtailing the rate of electric power usage in the AEC diffusion plants from 4850 to 3700 megawatts on a schedule which will essentially minimize cancellation costs under our existing power supply contracts. It is expected that the 3700 megawatt level can be reached in FY 1966. Since this plan for enriched uranium production assumes continued operation in all AEC production reactors, a later decision to effect any significant change in the level of plutonium production could require a further adjustment in the level of power utilization in the diffusion plants. Accordingly, we propose not to proceed with the contractual negotiations with our power suppliers until after your decision on the plutonium and tritium production component of our integrated operations, upon which basis we can make any necessary adjustments to our operating plans. A delay in initiating steps to reduce power until this summer, when a decision on plutonium is anticipated, is not expected to result in any significant increase in costs over the period through 1972.

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BY AUTHORITY OF DOE/OC

[Signature] 4/5/86
REVIEWED BY *[Signature]* DATE 6/17/86

Mr. President

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OFFICE DIARY
GLENN T. SEABORG
Chr USAEC, 1961-72
FOLDER-PAGE 29084

Since we have not begun negotiations with our power suppliers, we cannot now furnish either the final allocation of this 1150 megawatt power reduction between the diffusion plants at Portsmouth, Ohio, and Paducah, Kentucky, where the reductions would be effected, nor the specific time schedule on which it will be accomplished. The previously approved reduction of 1030 megawatts, scheduled to be completed on June 30, 1964, effects a major reduction in the power level at the Oak Ridge, Tennessee, diffusion plant site; thus no further power reduction is presently contemplated for Oak Ridge under the proposed new reduction of 1150 megawatts. At steady state, the proposed new reduction would reduce the AEC's annual budget by approximately \$40 million. Together with the previous reduction of 1030 megawatts, the total annual cost reduction in diffusion plant power will amount to approximately \$83 million.

In arriving at the new power level for the diffusion plant complex, the Commission found it appropriate to consider a longer time period than a production campaign ending in 1972. We believe that it is necessary to review and plan our diffusion plant operations over an adequate time period to minimize short term major fluctuations in the operating levels and the accompanying disadvantages on diffusion plant operations, personnel, and the overall impact on the associated coal production and electric utility operations. In addition, long range planning is necessary to provide reasonable assurance that enriched uranium will be available to meet future needs at prices which are reasonable and stable. In our report on the role of nuclear power in our economy, we concluded that nuclear power is on the threshold of economic competitiveness and that use of nuclear power will steadily increase with time. The expected increased utilization of nuclear power, and the need to contract for electricity for diffusion plant operations on long-term contracts in order to obtain low power prices, has led us to consider a period through 1980. Over such an extended period, and assuming that beyond 1972 there would be no further requirements for enriched uranium for weapons, it was found, on the basis of the assumptions discussed later, that it would be more economical to reduce the diffusion plant power to a level of 3700 megawatts than the other levels studied. This conclusion would apply for either the high or the low end of the range of projected growth of requirements for enriched uranium to support nuclear power during this time period, although the higher projection would require an increase in power level above 3700 megawatts in the middle 1970's.

Meeting the 1972 production objective established in your letter of February 2 and operation of the diffusion plants at 3700 megawatts will involve accumulating by 1972 a working inventory of about 34,000 tons U₃O₈ equivalent which could then be used to offset new ore concentrate

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Mr. President

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OFFICE DIARY
GLENN T. SEABORG
Chr USAEC, 1961-72
FOLDER-PAGE 29085

procurement by the AEC after 1972. Current indications are that this working inventory will actually be in the form of partially depleted uranium, after having been used for plutonium production in AEC reactors. This estimate of the working inventory is based on achieving the goal of the stretch-out program on domestic ore concentrates which extends through CY 1970, and assumes the procurement of an additional 6000 tons of U_3O_8 through FY 1972. Alternatively, complete utilization of this uranium inventory in the diffusion plants to minimize power requirements through 1972 would involve a reduction to about 2500 megawatts. With this level, the AEC's annual budget after reaching the 2500 megawatt level would be lower than the 3700 megawatt level by about \$45 million; AEC's budget for the campaign period FY 1963 through 1972 would be about \$300 million less than for the selected 3700 megawatt level. However, power would have to be restored to a level of 4500 megawatts in 1973, to meet even the low estimates of enriched uranium requirements projected for the mid and late 1970's. In effect, we would be dropping a large block of power which is available to us under existing contracts at highly favorable prices for only seven years and then replacing it with higher cost power. In fact, we would have to enter into contracts for this additional power shortly after having reached the 2500 megawatt level. After 1972, the annual budget to provide 4500 megawatts would be higher than for the 3700 megawatt case by about \$60 million. Overall, the case involving reduction to 2500 megawatts prior to 1972, followed by 4500 megawatts after 1972 would result in a cost for the campaign period 1963-1980 about \$200 million greater than for the 3700 megawatt level. With a four percent interest charge compounded annually on budget costs, the costs, including interest, would be about \$85 million greater than in the 3700 megawatt uniform level.

The lower power level of 2500 megawatts would provide the AEC with little flexibility to meet short range changes in requirements through the 1972 period, while the working inventory of uranium at the 3700 megawatt level could be utilized in case of necessity to provide an approximate 15 percent production gain. We are of the opinion that such a contingency is appropriate during this period of transition from a military program to one based essentially on peaceful uses. This production contingency would be available for both increases in weapons requirements and for a more rapid growth in peaceful requirements than was assumed in establishing the production objective.

The most economic mode of operation is determined by a proper balance between the cost of feed and cost of plant operations required to produce enriched uranium. In the projection of our operations beyond 1972, it was necessary to consider the likely purchase prices for additional

OFFICE DIARY

GLENN T. SEABORG

Chr USAEC, 1961-72

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Mr. President

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uranium ore concentrate and additional electric power. An examination of the current availability of ore concentrates and ore reserves has led to the conclusion that additional ore concentrates could probably be procured for \$6 per pound U_3O_8 through about 1974, but after 1974, a more realistic purchase price would be \$8 per pound U_3O_8 . These prices were used in arriving at the 3700 megawatt level. Since additional power cannot be expected to be obtained under the same favorable arrangements as under our current contracts, which were negotiated under a national emergency situation, an increase in power cost of one mill per kilowatt-hour over escalated rates under current AEC contracts, was considered realistic for new blocks of power.

A further factor which may have an effect on future power levels in the diffusion plants is the possibility of providing enriching services to customers who supply the necessary uranium feed; such a service, if accepted by a broad segment of the nuclear industry, could provide substantially more feed than the Commission would need for an optimum operation and could require significant changes in our operating plan. However, we do not consider it practicable to include this factor in our planning at this time because of the many uncertainties associated with the arrangements under which such a service would be offered and the extent to which the service would actually be used.

A reduction of 1150 megawatts to the proposed 3700 megawatt power level will affect about 500 AEC operating contractor personnel and approximately 1600 personnel in the coal producing and electric utility operations associated with the power output. Also affected will be the plans of the utilities to install new power generation facilities to accommodate the non-AEC load growth. On the other hand, a reduction of 2350 megawatts to a level of 2500 megawatts would affect approximately 1100 people engaged in diffusion plant operations and approximately 3500 people in the related coal producing and electric utility operations. Such reductions in employment level in these critical employment areas would have a distinct impact on surrounding communities. The post-1972 increase to 4550 megawatts would involve re-employment of about 800 personnel in gaseous diffusion operations and 2300 in the associated coal and utility operations.

I believe it highly desirable to defer announcing a reduction in enriched uranium output until we can make a concurrent announcement on any necessary change in operation of our plutonium production plants. As noted previously, a significant reduction in plutonium and tritium production output could result in a further adjustment in diffusion plant power. Thus, any announcement made now on reduced military requirements might,

Mr. President

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within a short span of a few months, require revision. Further, announcement at this time of a substantial change in enriched uranium output would raise speculation on the future level of operations among personnel at the production reactor sites at Richland, Washington, and Aiken, South Carolina, and at our fuel material processing plants at St. Louis, Missouri, and Cincinnati, Ohio. Because of the nearness of a decision on plutonium requirements, our response to any inquiries would necessarily have to refer to the fact that studies are now underway and a decision is expected shortly.

The above is a brief summary of the major assumptions and conclusions developed from a very comprehensive and detailed study. The development of an operating plan for the very large scale gaseous diffusion plant complex must in the interests of both the Government and the growing nuclear industry involve careful studying of the requirements, costs, long range assumptions, and policy considerations. I would like to have the opportunity to present to appropriate members of your staff the considerations which led to the selection of the operating plan outlined in this letter.

Your concurrence in the above plan of operation is requested.

Respectfully yours,

(Signed) Glenn T. Seaborg

Chairman

The President
The White House

bcc: Chairman Seaborg - 3A-4A
Commissioner Wilson - 5A
Commissioner Haworth - 6A
Commissioner Ramey - 7A
Commissioner Palfrey - 8A
General Manager - 9A
AGIPP ----- 10A
Secretariat ----- 11A-12A
Controller ----- 16A

PPI

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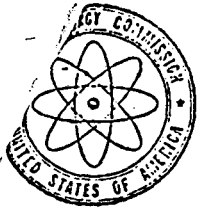
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EJGrabowski FRDowling FPBaranowski

5/13/63

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

BY DOE
NOV 86

COPY NO. 5
May 17, 1963

INFORMATION MEETING 275

11:10 a. m., Friday, May 17, 1963 - Chairman's Conference Room, D. C. Office

1. NSAM 210

Noted.

2. Letter to Mr. Bundy and Secretary of Defense re Uranium Production

The Chairman said he had signed the letter. (Brown)

3. Letter to Mr. Bundy and Secretary of Defense re Plutonium Production

The Chairman said he would sign the letter after the Commissioners' review today. (Brown)

✓ 4. Letter to Gerald Johnson re AEC Atmospheric Test Program - attached

The Chairman said he had signed the letter which sets out the scope of AEC's planning in preparation for the June 4 meeting.

5. General Manager's May 7 Memorandum re Shipment of Waste to Oak Ridge

The Chairman commented that this is the type of matter which the Commissioners appreciate being alerted about. The General Manager is to consider the desirability of issuance of a low-key press release after arrival of the shipment. (Clark)

6. AEC 116/49 - Classification of Yield in JOHNNIE BOY Event

The Chairman noted his concurrence in the Department of Defense's request and the paper will be scheduled for consideration on Wednesday, May 22. (Secy)

✓ 7. Letter to Secretary Zuckert re SNAP 50-SPUR Agreement - *attached*

The Chairman said he would send the letter, and Mr. Hollingsworth reported the letter had been discussed with Mr. Seamans, NASA, and he has no problems with it. (Brown)

8. AEC Release on GAC-PSAC Report on High-Energy Accelerator Physics

The Chairman noted the President has approved release of the report by AEC and requested coordination with Dr. Wiesner and pre-release reporting to the appropriate Congressional committees. (Ink/Clark)

✓ 9. Secretary of Defense's April 20 Memorandum re Nuclear Power for Surface War Ships

The Commissioners suggested the letter be circulated, and the Chairman said he would mention it informally to the Secretary at an appropriate time. (Brown/Secy)

10. Charges for Plutonium and Uranium Enriched in U-233

The Commissioners suggested discussions to reach a compromise figure of \$40/45. The General Manager is to discuss the matter further with the Bureau of the Budget and State Department officials in anticipation of Commission consideration on Wednesday. (GM/Secy)

11. NRDS Support Service Contract*

The staff reported that of the 28 proposals submitted, the Contract Board had rated Pan American, American Machine and Foundry, Radio Corporation of America and Northrup as the top four, in that order. Staff described briefly the rating criteria and the Commissioners noted this proposed contract as an example of one in which the Commission would have an interest in the development of criteria for use by the Contract Board. The Chairman had no objection to the General Manager's recommendation and requested that the announcement be coordinated with NASA. (Vinciguerra)

12. Radiation Exposure Incident at Hanford

Mr. Hollingsworth reported briefly on the exposure of several people and said a report is in preparation.

* Commissioner Wilson disqualified himself from consideration of this matter

13. Nevada Test and Space Site Construction Labor Board Order

Mr. Bloch discussed briefly the effect of the order issued yesterday, pointing out staff's concern with the proposed increase in per diem, lack of specific recommendations on the maintenance workers, etc. The order is to be circulated for the Commissioners' information and Senator Bible and Congressman Cannon are to be informed. (GM/Bloch)

14. Proposed Los Alamos Rent Schedules

At Mr. Hollingsworth's request, the Chairman said he would telephone Mr. Gordon, Bureau of the Budget. (Brown)

15. Nucleonics April 22 Letter re AEC Publications

In response to Dr. Wilson's query, the Chairman said he had in a recent letter to Mr. Luntz suggested that the Chairman, Mr. Luntz and Mr. Brunenkant discuss this matter at an early date.

16. IAEA Convention on Civil Liability

In response to Dr. Wilson's query, Mr. Hennessey said agreement may not be reached on a convention during the current conference, and that if agreement is reached, the staff will recommend whether the U. S. should be a signatory.

17. Agenda for the Week of May 20

Approved, as revised. (Secy)

PRESENT

Dr. Seaborg
Dr. Wilson
Mr. Hollingsworth
Mr. Hennessey
Mr. Brown
Mr. McCool
Mr. Finger*
Mr. Vinciguerra*
Mr. Bloch **

DISTRIBUTION

Commissioners
General Manager
General Counsel
Secretary
W. B. McCool
Secretary

*Attendance for Item 11 only.

**Attendance for Items 11, 12 and 13 only.

I sent a letter to Bundy describing various levels of plutonium production cuts, including the role of the NPR, the production of Cm-244, etc.

I received approval from the President yesterday for NIBLICK, the FY 1964 underground test series. This includes 30 developmental tests plus 15 other tests connected with developing the "big bomb." The question of policy on the "big bomb" will be discussed by Bundy, McNamara, Haworth and others next Tuesday.

I had lunch at the Metropolitan Club with Howard Lowry (President, Wooster College) and J. Franklin Carter.

The Department of Commerce terminated the States Marine contract for the operation of the Savannah. This may be a mistake because there will be a six-month delay to train replacements.

I attended a meeting of the Space Council from 2:30 p.m. to 5 p.m. Others in attendance included: Vice President Johnson, W. Averell Harriman, Harold Brown, James Webb, Najeeb Halaby, Gordon Bane (FAA), Henry de Butts (CAB), Martin (Commerce), Moynihan (Labor), Dillon, Staats, Heller, Welsh and Fritsch. We heard a presentation by Halaby on the Supersonic Transport. This would be a billion dollar program with the first plane due around 1970. The subject will be discussed further but the U.S. Government will probably go ahead.

After the meeting Vice President Johnson talked to Webb, Brown, Moynihan and me to tell us to make monthly reports on how our contractors are responding to the antidiscrimination clause--this is very important politically.

I called Harold Brown about the MCR program. he said the Army is interested in it because it is the only thing left for Army reactors. They expect to want portable power, but it depends to a considerable degree on how good and how reliable this system is. He said they don't regard it as anything like ANP; they are much more worried about some of the space power units. I said I think it boils down to almost a matter of priority and that we have an impossible budget target for 1965. I said I think whether we try for it or not will depend on whether DOD really wants this and is willing to go to bat for it. He said he thinks they would be willing to go to bat for it, but he would like to think about it and make a review of the whole situation.

I sent a letter to Bundy (copy of the letter and reply attached) on the subject of furnishing highly enriched uranium to West Germany, a letter to Jerry Wiesner (copy attached) describing our proposed atmospheric nuclear weapons series tentatively scheduled for the summer of 1964 in the Pacific, and a letter to Secretary of the Air Force Eugene Zuckert (copy attached) describing our proposed interagency management plan for the Snap 50/SPUR nuclear power plant.

During the evening Pete took a number of pictures of family members.

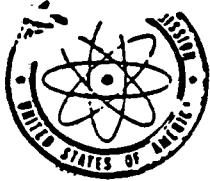
Saturday, May 18, 1963 - Washington to Moscow

Sunday, May 19, 1963

I worked in the office until about 2:30 p.m. and then had lunch at the Metropolitan Club with Goldanskii and Ghiorso.

The family and I (except Lynne) attended Eric's Cub Scout picnic in Rock Creek Park.

We departed Dulles International Airport at 9:35 p.m. on the Air Force No. 1 plane. I slept in President Kennedy's bed aboard the plane from midnight to 4 a.m. (Washington time), or 7 a.m. to 11 a.m. (Moscow time). We arrived in Moscow at



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

OFFICE DIARY
GLENN T. SEABORG
Chf USAEC, 1961-72
FOLDER-PAGE 29100

UNCL. BY DOE
NOV 86

MAY 18 1963

901919

Dear Mr. Bundy:

For several weeks the Commission has had under study an inquiry it has received from the German Government, as well as an American firm, as to whether it would be prepared to furnish a sizeable quantity of highly enriched uranium to Germany to fuel a 40 megawatt nuclear power plant. Specifically, a group of German utilities has invited the General Atomics Division of General Dynamics to submit a tender, in competition with a British firm, for the construction of a 40 megawatt high temperature, gas-cooled reactor that would be similar to the reactor now being constructed by that company at Peach Bottom, Pennsylvania. The question has arisen since the United States has not as yet authorized the transfer of the substantial amount of highly enriched uranium required for use in foreign nuclear power reactors, although lesser quantities of such material have been authorized for use in foreign research and test reactors and several other specific applications.

As a result of its review, the Commission has concluded that there are valid technical and economic reasons which strongly favor the use of highly enriched uranium in the proposed reactor. In brief, the use of uranium enriched to 90% in the isotope U-235 would be beneficial in this type of reactor since it would lengthen the lifetime of the fuel, reduce operating costs, and enable the U.S. reactor manufacturer to use essentially the same design to benefit from the extensive experience gained to date domestically in the Peach Bottom project. The use of such material also would greatly enhance the ultimate capacity of this particular concept to replenish or "breed" new fissionable material and as such it would contribute, in some measure, to the achievement of one of the principal goals which the Commission recently recommended in its report to the President. Specifically, the Commission believes that the long term viability of nuclear power is dependent upon the successful development of reactor concepts that will conserve uranium resources. This belief and interest is shared by other nations. Accordingly, in assisting the German project we will be encouraging desirable technical developments that hopefully will redound to our own benefit. We also will be operating within the spirit of close collaboration that has distinguished our international program. A refusal, on the other hand, to make the desired fuel available would deprive the Europeans of the full benefit of our own advancements in the field of civilian power and an American manufacturer of an opportunity to sell a promising type reactor abroad.

WITH DELIBERATIONS
BY AUTHORITY OF DOE/OC
[Signature]
REVIEWED BY *[Signature]* DATE *6/17/86*

Mr. Bundy

- 2 -

As a counter-balance, however, the transfer of sizeable quantities of weapons grade material would represent an additional risk since it would materially add to the quantities of fissionable material available to Germany that are suitable for use in the fabrication of weapons. Accordingly, in evaluating this proposal, we have given thoughtful consideration to the broader implications involved and to the question of whether our existing safeguards and guarantees are adequate to assure that additional transfers of this nature will serve only peaceful purposes. In performing this study, we have noted that there is increasing interest here and abroad in fuel concepts employing highly enriched uranium. In view of our broad policy favoring cooperation with other countries in the peaceful uses of atomic energy, we assume this growing interest will reflect itself in other meritorious requests to use highly enriched uranium in Germany or elsewhere.

Although the answer to the question posed clearly involves matters of judgment, it is our view, as well as the opinion of the Department of State, that the safeguards and assurances that the United States will receive in this and similar instances should adequately reduce the possibility that the materials transferred will be diverted to military use.

Our conclusion in this regard has been based largely on the fact that it already is inherent in the international program that cooperating countries will be able to produce and retain, under continuing safeguards, sizeable quantities of weapons grade material. Specifically, under a number of our agreements several large power reactors, capable of producing sizeable quantities of plutonium are being planned or are actually under construction. A few of these facilities will soon come into operation. Under our agreements the other country has the right to retain, following reprocessing in facilities acceptable to the U.S., any fraction of the produced plutonium that it requires for civil purposes and the United States has the option to purchase the surplus. Accordingly, the significance of the proposed transfer to Germany lies in the fact that it will significantly increase the pool of weapons quality material likely to be available overseas. The transfer and use, however, of highly enriched uranium will not present any serious new safeguards problems beyond those associated with separated plutonium.

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In the instant case, the proposed transfer probably would take place pursuant to our Additional Agreement for Cooperation with EURATOM and will be subject to EURATOM's multilateral control system. The Agreement provides that EURATOM's system must be established in accordance with

Mr. Bundy

- 3 -

prescribed principles and that it also must be reasonably compatible with safeguards administered by the International Atomic Energy Agency. The United States has the opportunity to verify the actual operation of the EURATOM system to determine that the principles and assurances set forth in the Agreement are being implemented effectively.

The actual system which has been developed by EURATOM to date is quite comparable to our own bilateral safeguard system and to the Agency's system as well. Neither the Agency nor EURATOM, however, have adopted procedures for large reactors or for facilities involving very large quantities of uranium or plutonium. This matter is now under active study and it is anticipated that adequate procedures would be developed to cover such cases in the very near future.

In view of the foregoing considerations, the Commission plans to inform the interested parties that it is agreeable in principle to providing uranium enriched to 90% in the isotope U-235 for the subject reactor with the understanding that before any material is transferred it will wish to review the detailed safeguard arrangements. The Department of State concurs in this judgment. Prior to taking this action, however, I wanted to call this matter to your attention and shall be pleased to answer any questions you may have on the matter.

Sincerely,

(Signed) Glenn T. Seaberg

Chairman

Honorable McGeorge Bundy
Special Assistant to the President
The White House

cc: Chairman (2) ~~455A~~ ~~455B~~
Commissioner Haworth -6A
Commissioner Palfrey -7A
Commissioner Ramey -8A
Commissioner Wilson

DC FILE

THE WHITE HOUSE
WASHINGTON

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NOV 86

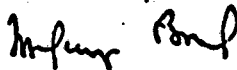
June 5, 1963

Dear Glenn:

Thank you for your letter of May 18 on the proposed transfer of enriched uranium to Germany to fuel a 40 megawatt nuclear power plant.

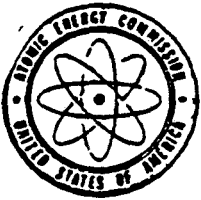
I see no objection to proceeding in the manner you proposed since I believe the safeguards under which you will operate will be adequate to meet our concern that no unauthorized use of fissionable materials could arise under cooperation agreements for peaceful uses.

Sincerely,



McGeorge Bundy

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



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

DC FILE

901921

MAY 17 1963

OFFICE DIARY
GLENN T. SEABORG
Chr USAEC, 1961-72
FOLDER-PAGE 29104

ENCL. BY DOE
NOV 66

Dear Jerry:

In your letter of April 26, 1963, you requested our current views on the objectives and composition of the weapons development tests which might be conducted off-continent in the Summer of 1964. As you are now aware, by subsequent action, we are joining with the Department of Defense and others in a NSAM Ad Hoc Committee, chaired by Dr. Wiesner, to review the purpose, characteristics, and general scope of Atomic Energy Commission and DOD tests proposed for execution in the Summer of 1964. It appears that the initial report for consideration by the Committee will be due within about a month.

Within the AEC we have, for the past several months, been developing the type of program which would be proposed for the next atmospheric series. Although at present this program is not amenable to a detailed shot list, it can be described with reasonable accuracy as to scope and objectives; this material is submitted for your information in the following portions of this letter. Within the next few weeks a detailed but still preliminary shot list will be available for the NSAM Committee. I believe this list, when accomplished, should satisfy the DOD for the detailed composition of our proposed 1964 test program.

The proposed program presented below is consistent with our continuing objectives of weapons development. Our proposed developmental tests, in general, stem directly from requirements imposed by the DOD. As you are aware, our current underground program satisfies many of the DOD requirements; it also furnishes valuable precursor information for a subsequent atmospheric series and our efforts are being geared accordingly.

Scope of Program

We are presently basing our program on a reasonable capability for conducting an atmospheric program during a relatively short period of only three to four months. We can foresee the requirement and the capability of performing approximately thirty developmental tests within such a time frame.

Composition of Program

For convenience, our proposed developmental program can be considered in three categories.

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REVIEWED BY *[Handwritten signature]* 6/12/86
DATE *[Handwritten signature]*

In the first category are those tests of weapons prototypes in which the design concepts are sufficiently well known to warrant reasonable assurance of meeting specifications. We would expect to conduct approximately five tests in this category, of which the light weight FUBO (TK-61), MEXEM warhead, and the Clean TX-53 might be candidates.

In the second category we propose to test designs which are potential prototypes for weapons systems. These designs are more advanced than the first category, above, and might require one or several tests in each particular subgroup. In general, these tests would depart from the more conventional two-stage devices to advance multistage technology and increase fusion-to-fission ratios. Approximately twelve tests might be required in this category with one or more directed specifically toward warheads for MINUTEMAN, POLARIS, TITAN I/ATLAS "F" and strategic bombs such as the Clean Class D and Clean Class C.

In the final category are tests of those designs considered to be advanced concepts which would be largely exploratory in nature. There would be several experiments in furtherance of the RIFLE approach in addition to other concepts such as GAMBOLFO, the feasibility of which has not been established. Our ultimate objectives in this program are to achieve efficient high yields and high fusion-to-fission yield ratios. Also, in this category we would pursue an investigation of optimum hardening (THERM).

In the proposed series, the AEC would also conduct several effects tests. In Mr. Gilpatric's letter of April 22, 1963 to Mr. Bundy, the program proposed by the DOD contained the requirements and objectives of the DOD in this area. It is expected that through the joint efforts of the AEC and the DOD, this program would be modified in part to reflect also those effects areas of interest to the AEC. Although there may remain some tests in the effects area which will be the sole concern of the DOD, it is possible that some interest of the AEC may prevail outside of the program as contained in Mr. Gilpatric's letter and therefore we consider the possibility of including several AEC effects tests. As with the rest of the program, it is planned to present this material to the NSASi Committee.

- 1A&2A: Addressee
- 3A&4A: Chairman
- 5A: GM
- 6A: Comd Heworth
- 7A: Comd Palfrey
- 8A: Comd Roney
- 9A: Comd Wilson

Sincerely yours,

(Signed) Glenn T. Seaberg

Chairman

Honorable Gerald W. Johnson
Assistant to the Secretary of
Science (Atomic Energy)

AGM

DCM

GM

Department of Defense
MA:RSD MA
DSFokwell/bls B_ctts
5/ /63

MAY 16 1963

UNCL. BY DOE
NOV 84

Dear Gene:

Subsequent to the recent interagency management agreements for the SNAP 50/50W power plant development program which culminated in the Memorandum of Understanding between the AEC, NASA and USAF of November 29, 1962, we have been exploring means of implementing the agreements reached primarily as regards additional program responsibilities assigned to the Commission.

In view of the established national program objective to develop and flight test an experimental space power plant and the provisions of the agreement for assigning responsibility to the Air Force for important supporting elements vital to the achievement of this objective, the Commission clearly recognizes that a practical AEC-USAF working relationship needs to be established.

As part of our considerations for arriving at a practical management plan there were two matters of concern:

- a. The breakout of responsibilities between the AEC and the Air Force which are explicitly and implicitly assigned in the terms of the Memorandum of Understanding, and which therefore form the basis for funding responsibilities.
- b. The identification and assignment to the Air Force of the specific developmental tasks which fall under the AEC responsibilities, but which can be best accomplished utilizing existent Air Force programs and capabilities.

With regard to the first of these, we have prepared a draft of the funding addendum, as required by the Memorandum of Understanding, for circulation to the principal signators. We considered that the DOE would be responsible for the funding of:

- a. Necessary studies required to establish and define military requirements.

- b. Appropriate flight test functional items including telemetry, guidance, command and control.
- c. Payload equipments; dummy or non-interfering.
- d. Power conditioning equipment.
- e. Integration of all elements into a flight test vehicle.
- f. Boosters and their adaptation to mate with the flight test vehicle.
- g. Compatibility of all elements of the experimental flight test system with the launch complex.
- h. The conduct of the flight test program to include launch costs, flight operations and data retrieval.
- i. Supporting facilities required by b. through h. above.

And that the AEC would be responsible for the funding of:

- a. All SNAP 30/3P1H component research and development.
- b. Ground test of the experimental power plant.
- c. Development and provision of experimental power plant capsules for flight test. Included in this development is the structural integration of power plant components into a flight configured and flight qualified package.
- d. Nuclear safety.
- e. Developmental, test, and support facilities required for a. through d. above.

It is my belief that the above alignment is in keeping with the Memorandum of Understanding as well as the more general DOD/AEC Agreement of September 6, 1961. The Secretary of Defense will undoubtedly solicit your coordination of this funding submission.

There is also the matter of those responsibilities which, while funded by the AEC, are best assigned to the Air Force. It was considered that the large heat rejecting radiator, in the interest of saving weight, would have a very important relationship to the structural considerations, not only of the power plant itself, but

to your flight test vehicle. In view of this, I propose that, with your concurrence, the responsibility for the development of the radiator and the responsibility for the related structural integrity of the power plant be assigned to the Air Force.

In our considerations we have also recognized that a substantial program specifically directed toward SNAP 50/RTM power conversion equipment, along with an appropriate field office management capability, already exists within the Air Force. We have recognized, too, that a broad base of similar technology also exists at your Wright Patterson Air Force Base. This program is presently concentrating considerable effort upon the development of the turbo-alternator, it being recognized as the most critical item of the power conversion equipment. Thus, I also propose that, with your concurrence, the responsibility for the development of the turbo-alternator be assigned to the Air Force. There are also other components, such as boilers, condensers, and heat exchangers, for which the existing Air Force program could be beneficially continued, at least through the experimental development phase. I propose, with your concurrence, that the development of such components as selected by the program manager, also be developed by the Air Force up to the point where full scale refractory metal fabrication and testing become necessary.

In the interest of clarity, it is well to set forth the responsibilities in addition to the reactor development which I plan to discharge directly through our Connecticut Advanced Nuclear Engineering Laboratory (CANEL). These include:

- a. Development of remaining power plant components.
- b. Power plant integration.
- c. Development of the control and start-up systems.
- d. Conduct of the ground prototype tests.

The liquid metal-columbium alloy technology developed at CANEL and the availability of facilities remaining from the AEP program, are best utilized by such a program. In this regard, it is planned that all non-nuclear columbium loop facilities would be located at CANEL. We also expect that refractory alloy fabrication and testing facilities would be used to the fullest extent possible, including those necessary for turbo-alternator development.

In assigning the above responsibilities, and in keeping with the Memorandum of Understanding, it is necessary that we reach a mutual understanding that for those responsibilities funded by the AEC, the authority for program management, direction and control be maintained by the SARP 50/AFTR Program Manager within the AEC. The Memorandum of Understanding provides that an Air Force Deputy be assigned to the Program Manager's office at the AEC. The management relationship proposed here envisions that this AF Deputy would be responsible to the SARP 50/AFTR Program Manager for those AEC responsibilities assigned to the Air Force. He would require an AF staff to assist him with his management responsibilities and would use the contracting and contract monitoring capabilities of one or more existing AF agencies, as selected by the Air Force. In order to provide the most effective government management team utilizing the unique capabilities of both agencies, it is further proposed that appropriate Air Force personnel be assigned to participate in the over-all program. To do this most advantageously I believe these people should be located in the field project offices to function as working groups as well as in the SARP 50/AFTR Program office. I have attached a proposed organizational plan which diagrams how such an arrangement would operate.

Although many aspects of this general approach need to be resolved, I believe this plan represents a realistic step toward effective implementation of the SARP 50/AFTR Program in accordance with the provisions of the Memorandum of Understanding. In addition I propose, with your concurrence, that such things as the details of working relationships, modifications and refinements of defined responsibilities, and program details, be worked out directly between the SARP 50/AFTR Program Manager and the Air Force agencies which you designate.

Sincerely yours,

(Signed) Glenn T. Seaborg
Chairman

Distribution:

Addressees

✓ Chairman (2)

GM (2)

AGTRD

Secretariat

WLC

RD:D Subj

RD:D Mir

Honorable Eugene M. Duckert

Secretary of the Air Force

Department of Defense

Enclosure:

Proposed Organizational Plan

RD:D

AGTRD

ACM

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Pittman

5/11/62

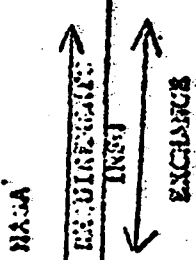
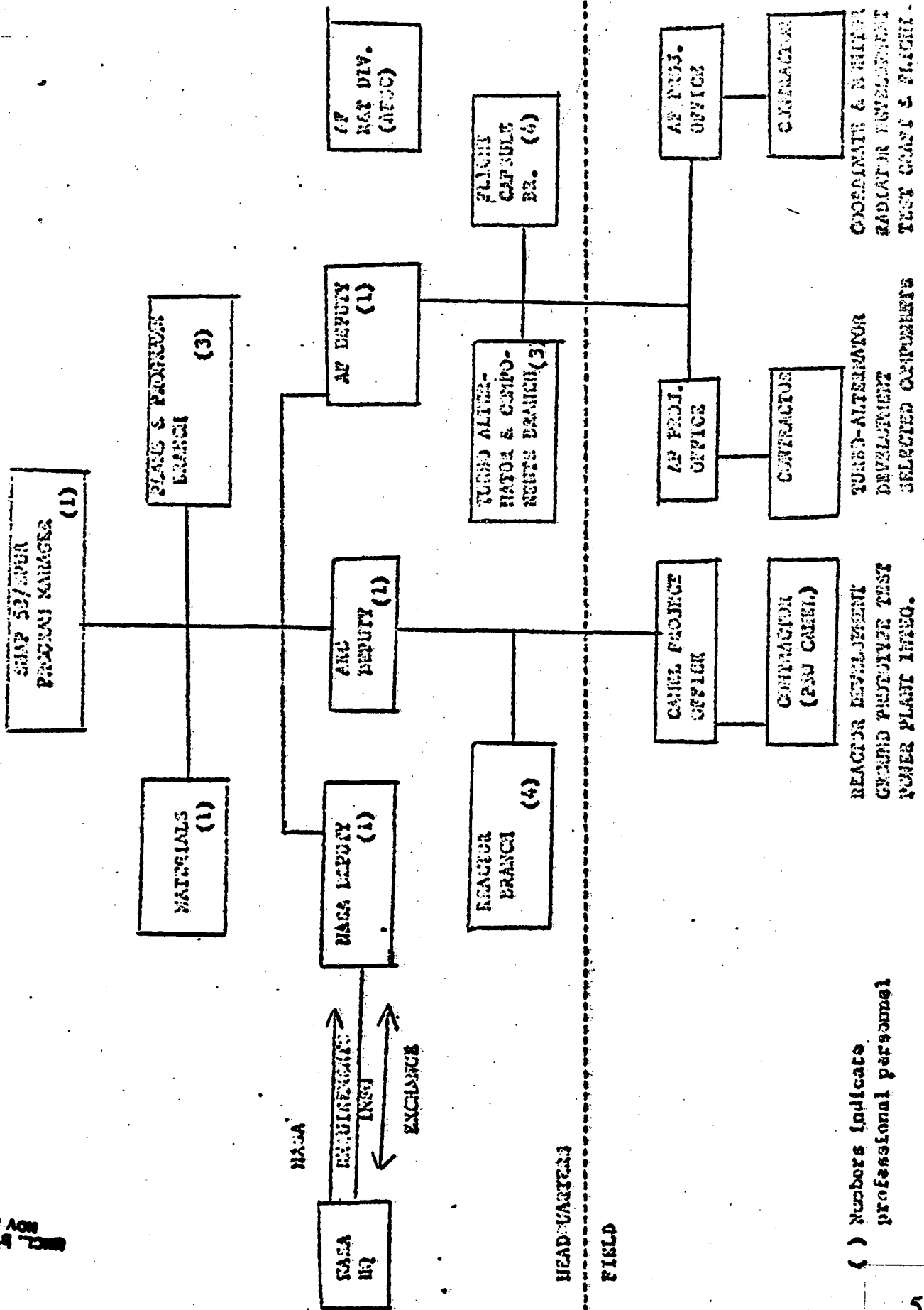
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MEMORANDUM PLAN



HEAD-QUARTERS
FIELD

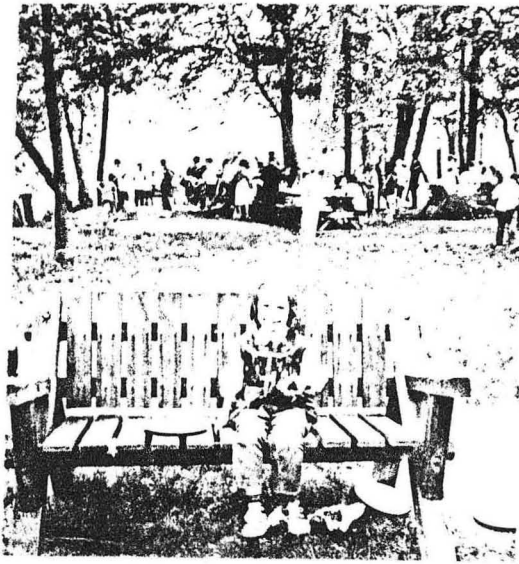
() Numbers indicate professional personnel

REACTOR DEVELOPMENT
GENERAL PURPOSE TEST
POWER PLANT INEQ.

TURBO-ALTERNATOR
DEVELOPMENT
SELECTED COMPONENTS

COORDINATE & DIRECT
RADIATOR DEVELOPMENT
TEST CASES & FLIGHT.

PREP. BY DO
NOV 66



Dianne, Rock Creek Park



David and Dianne
Study - Washington house



Eric's Cub Scout Park Picnic
Rock Creek Park



Steve and Dianne - Dining Room
Washington House



Helen - Dining Room



Glenn - Dining Room



The delegation preparing to board the Presidential aircraft for departure to Moscow, May 18, 1963

L to R: Seaborg, A. Luedecke, M. Benedict, A. Zucker, G. Tape, A. Ghiorso, A. Crewe, C. King and A. Fritsch (A. Wells not present)



Arrival of the delegation at Moscow's Sheremetyevo Airport, May 19, 1963

In the left foreground are U.S. Ambassador Kohler, Seaborg and Chairman Petrosyants

1:10 p.m., making the flight from Washington, D.C. to Moscow in 8 hours, 38 minutes and 42 seconds, which established a record. I saw Riga, Latvia and many small Russian towns on the way.

My delegation consists of the following: Gerald F. Tape (recently appointed Commissioner, USAEC, outgoing President, Associated Universities, Inc.), Manson Benedict (Chairman, General Advisory Committee, USAEC, Professor, Massachusetts Institute of Technology), Alvin R. Luedecke (General Manager, USAEC), Albert V. Crewe (Director, Argonne National Laboratory), Albert Ghiorso (Scientist, Lawrence Radiation Laboratory), Alexander Zucker (Scientist, Oak Ridge National Laboratory), Algie A. Wells (Director, Division of International Affairs, USAEC), Arnold R. Fritsch (my Technical Assistant, USAEC), Cecil St. C. King (my Staff Assistant, USAEC).

In addition, on the flight to Moscow, we had an unexpected last-minute companion: Vitalii I. Goldanskii, Chief of the Radiation and Nuclear Chemistry Group at the Chemical Physics Institute of Moscow. Goldanskii, an outstanding scientist with whom I was well acquainted, had been visiting U.S. nuclear research facilities including the USAEC Brookhaven National Laboratory. On learning of our projected trip, he had asked me only a few days earlier whether he could "hitch a ride" home with me. I had agreed without hesitation. While officials of both the U.S. State Department and the USSR Embassy in Washington may have been somewhat taken aback by this impromptu arrangement, neither side raised any objection.

We were met at the Sheremetyevo airport (north of Moscow) by U.S. Ambassador Foy Kohler, SCAE Chairman Andronik M. Petrosyants, V. S. Kandaritskiy, Director of the International Affairs Office of SCAE, and many newsmen and photographers. A Russian newsman asked if I brought greetings from President Kennedy to Khrushchev, and I said the President sent his best wishes and hopes that a successful Agreement on Peaceful Uses of Atomic Energy would be concluded.

I was driven to Spaso House in a State Committee on Atomic Energy car. Fritsch also is staying at Spaso House and the others are staying at the Sovietskaya Hotel. We had lunch at Spaso House with Kohler, Embassy Second Secretary Herbert Okun (who is to be our escort officer), John McSweeney (Minister), McHugh (President Kennedy's Air Force Aide, who came on the plane with us), Fritsch, Wells, and King.

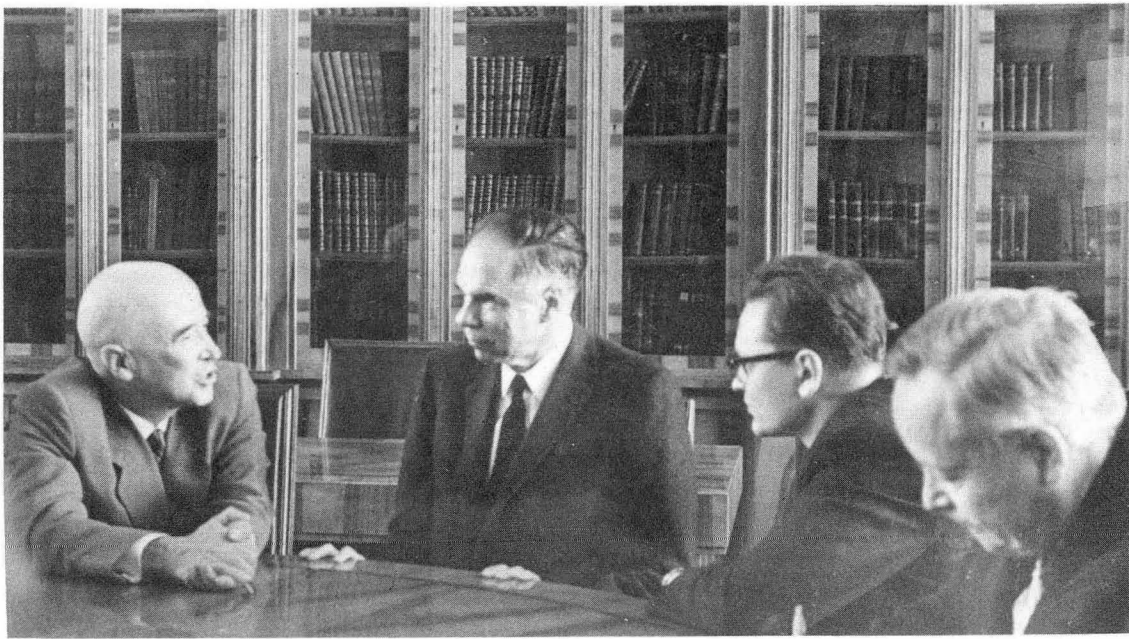
After lunch, Fritsch, King, Okun and I visited the Kremlin and took movies and pictures.

After sandwiches at Spaso House, the entire group (including those staying at the Sovietskaya Hotel) attended a show which began at 7 p.m. at the magnificent Palace of Congresses in the Kremlin. The capacity is 6,000 and it was full. We watched The Red Army Chorus (including dancers). The singers were good but many songs were somewhat militant.

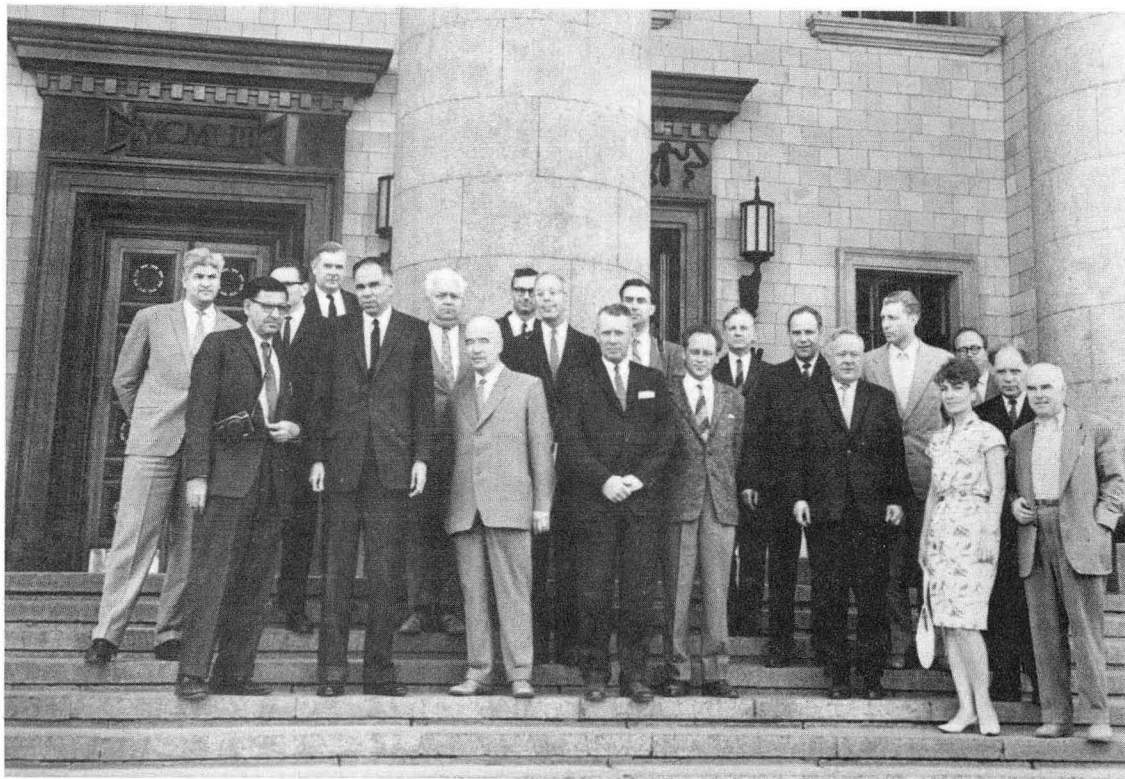
Monday, May 20, 1963 - Moscow

The whole group went to the headquarters of the State Committee on Atomic Energy, where we held discussions with Andronik M. Petrosyants, Igor D. Morokhov (First Deputy Chairman), Valentin A. Levsha (Deputy Chairman), Nikolay M. Sinev (Deputy Chairman), and Emelyanov (Deputy Chairman), and Kandaritskiy. We agreed on a schedule of our stay. They then showed us a model of their 70 Bev accelerator and injection linear accelerator being constructed at Serpukhov.

We then went to the Moscow State University, where we visited with I. G. Petrovskiy (Rector), G. D. Vovchenko (Vice Rector), whom I met in Berkeley while Chancellor,



Meeting with Rector Petrovskiy at Moscow State University, May 20, 1963.
L to R: I. G. Petrovskiy, Seaborg, interpreter Apollonov and
V. S. Emelyanov



Visit to Moscow State University, May 20, 1963

Professor Vernev (Director of Cosmic Ray Laboratory), and Furzer (Financial Officer of the University). First we held discussions on the University in Petrovskiy's office (16,000 full-time students, plus 14,000 part-time students with 6,000 rooms for students). We saw views of Moscow from four sides of the roof, and took movies, and pictures, and color Polaroid, the latter of which we gave Petrovskiy. I said I would write to Ed Strong about the Agreement of Cooperation between the University of California at Berkeley and Moscow State University. I also promised to send Petrovskiy a copy of the CHEMStudy book and of Man-Made Transuranium Elements. We talked about science education (NSF program in high schools) in the United States and also mentioned plans for college and university science for non-scientists. We visited the student dormitory rooms, geology museum, lecture hall, etc. We had lunch with the same group at the University. After lunch we visited the Cosmic Ray Laboratory, under the immediate direction of G. B. Khristiansen. It is equipped with large showers, 5000 counters spread out over 100 meters which measure 10^{17} ev cosmic rays. I gave Petrovskiy a copy of Elements of the Universe, Transuranium Elements, and two AEC reports. Petrovskiy gave me a Luminaovsky Medal.

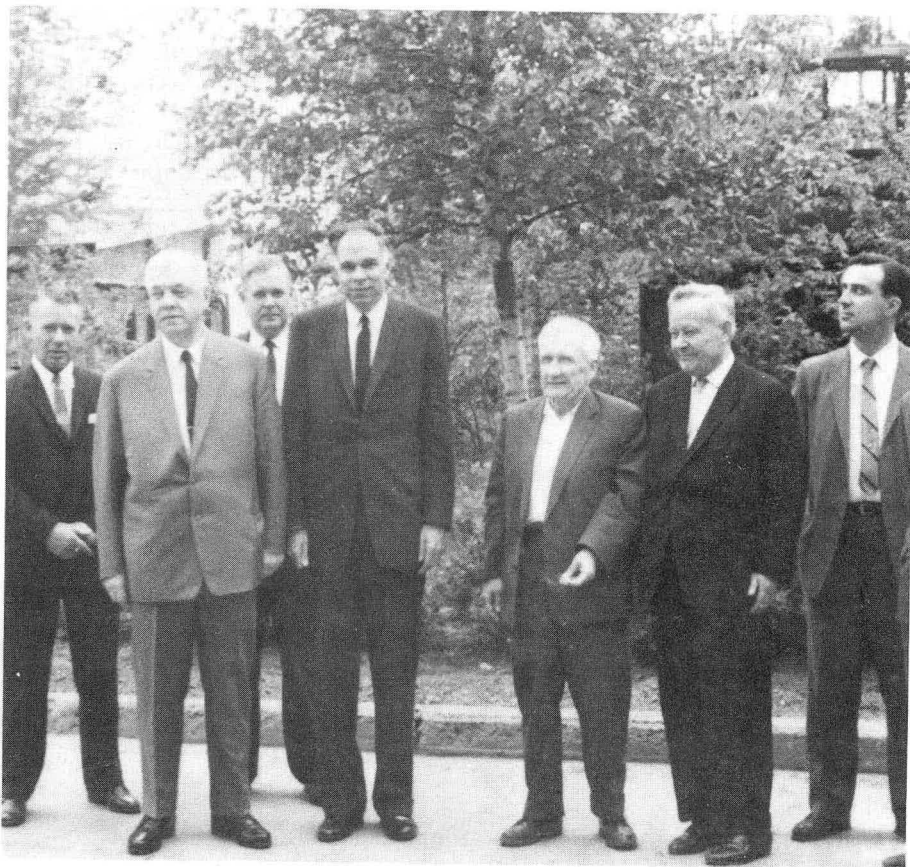
Then Crewe, Tape, Luedecke, Wells, King and I visited Lebedev Physics Institute. Emelyanov was our host all day. We saw Dimitrii V. Skobeltsyn (Director), Ill'ya M. Frank (Head of Laboratory of Nuclear Physics), Bentsion M. Vul (Director of Semiconductor Lab), V. S. Vavilov (Deputy Director, Semiconductor Lab), P. H. Cherenkov (head of 250 Mev Synchrotron Lab), Alexander Baldin (Head of Theoretical Physics of 250 Mev Synchrotron Lab), Valentin A. Petukhov (Head of 660 Mev Synchrotron Lab), Ye. P. Ovchinnikov (Director, Radioastronomy Lab), N. A. Dobrotin (Deputy Director of the Institute and Head of Cosmic Ray Lab), I. Y. Tamm (Head, Theoretical Department), and A. Barchukov (Scientific Secretary). We visited the Solid State Lab and Model 30 Mev FFAG machine and laboratory (which is an electron accelerator prototype for a MURA-type machine, not yet planned).

Crewe, King, Tape, Wells, Emelyanov, Okun and I visited the Arms Chamber of Kremlin--a museum with old armor, jewelry, carriages (gold parts), crowns, dresses, gowns, etc., of Czars, Peter the Great, Catherine the Great, etc., of the past several hundred years. I had dinner at Goldanskii's apartment on the grounds of the Institute of Chemical Physics, on 16 acres overlooking the Moscow River (next to Kapitza Institute). Present at dinner were: Benedict, Ghiorso, Zucker, Dr. and Mrs. Goldanskii and their son Andreus (six years old). (I gave them a record, Zippo cigarette lighter and a lipstick.) He gave me copies of the Russian translations of the Hyde and Seaborg, and Katz and Seaborg works (Actinide Elements).

Then I visited Nikolai N. Semenov (Director) at his home on the Institute grounds, where I saw Mrs. Semenov, and Academicians V. M. Emanuel and V. N. Kondratiev. I gave Semenov a record and a copy of The New World (the first volume of the history being written of the USAEC). I showed him the certificate of his election to the U.S. National Academy of Sciences. I invited him to the United States next year, and I said I would arrange it.

Tuesday, May 21, 1963 - Moscow

Petrosyants and I signed four copies (two in each language) of the Agreement for Cooperation in Peaceful Uses of Atomic Energy (copy attached to Journal entry for June 1, 1963). Tass, AP, UPI, photographers, CBS, and ABC TV representatives were present. I gave special interviews to CBS and ABC TV. After signing, we spent about 40 minutes in conviviality around the table. Our whole delegation and Ambassador Kohler were present, plus all the Soviet officials who were present yesterday at the discussion of the program. The whole group was driven to Arkhangelskoe, former estate of Duke Golitsyn and later Yusupov (killer of



At Lebedev Physics Institute, Moscow, May 20, 1963

L to R: A. Luedecke, D. V. Skobeltsyn, G. Tape, Seaborg, I. Y. Tamm,
V. S. Emelyanov and A. Crewe



A portion of the Chemical Physics Institute in Moscow. Domed building
houses large 2.5-MeV Cockcroft-Walton accelerator and associated laboratories



Presentation of the Mendeleevium Folio to President Keldysh,
USSR Academy of Sciences, Moscow, May 21, 1963.

L to R: I. D. Morokhov, M. D. Millionshchikov, Seaborg, M. V. Keldysh,
A. Ghiorso, (in foreground back to camera) D. V. Skobeltsyn



At USSR Academy of Sciences, Moscow, May 21, 1963.

L to R: I. Y. Tamm, A. Zucker, A. Luedecke, A. Ghiorso, N. N. Semenov,
A. Crewe, M. V. Keldysh, Seaborg, I. D. Morokhov, M. D. Millionshchikov,
A. P. Vinogradov, G. Tape, V. I. Spitsyn, L. A. Artsimovich and
D. V. Skobeltsyn



Seaborg and Petrosyants signing the Memorandum of Cooperation in the Field of Utilization of Atomic Energy for Peaceful Purposes in Moscow, May 21, 1963



Seaborg and Petrosyants shaking hands after signing the Memorandum of Cooperation, May 21, 1963
L to R (in the background): Interpreter, I. D. Morokhov, V. A. Levsha and N. M. Sinev

Rasputin) of early and late 19th century, respectively--a beautiful park and museum (closed today). We were then driven back to Moscow (the park was approximately 30 km out from the center of the city) and had lunch at the National Hotel. Then all of our delegation with Morokhov went to the USSR Academy of Sciences, where I introduced our group, and President Mstislav V. Keldysh* introduced his group. Benedict and I presented to N. N. Semenov a certificate of membership in the U.S. National Academy of Sciences on behalf of NAS President Frederick Seitz. Ghiorso and I presented a Mendeleevium Folio to Keldysh. Crewe and I presented CP-1 graphite pieces to Keldysh, Mikhail D. Millionshchikov (Vice President of USSR Academy of Sciences) and Morokhov (of the SCAE). Academicians Tamm, Aleksandr P. Vinogradov, V. I. Spitsyn, Skobeltsyn, and Lev A. Artsimovich were also present. After this, we attended a reception at the Academy. Pictures were taken here as well as previously at Arkhangelskoe. We attended the U.S. Army-Navy diplomatic reception at Spaso House (hundreds of guests, including Russian military and also the head of Aeroflot). The whole group attended the Bolshoi ballet (Tchaikovsky's Swan Lake) at the Palace of Congresses, with Petrosyants, Kandaritskiy, Okun, D. P. Filippov, and others.

Wednesday, May 22, 1963 - Moscow

Our whole group visited the Kurchatov Institute of Atomic Energy. Petrosyants, Emelyanov, Sinev and others spent the whole day with us. At 10:00-11:15 a.m. I gave my talk, to a full auditorium, on "Transuranium Elements." My talk was translated into Russian as I spoke. I mentioned the fact that Flerov and his co-workers have discovered a new isotope of 102 (102^{256}) via Fm 252 --but referred to the Berkeley work of 1958 as the discovery of 102. In my talk I gave the history of transuranium elements, their position in the periodic table, a little on plutonium, discovery of 101, 102, 103, the AEC transplutonium production program, COACH approach (the use of a flood of neutrons from a nuclear explosion to produce heavy elements), future elements and their chemical and nuclear properties. My talk was followed by questions. I was introduced by Anatolii P. Aleksandrov (Director). S. S. Rodin gave me copies of the Russian translation (which he had done) of Elements of the Universe for me and my co-author Evans G. Valens. Professor Gedel, who had sent me her book on transuranium elements, spoke to me.

After lunch we visited the controlled thermonuclear program under Artsimovich. In PR-5 he obtained 10^9 - 10^{10} ions/cm³ at 5 KeV (40,000,000°C) for 30 milliseconds. We also saw Ogra-1 and the experimental ion source under project leader I. N. Golovin.

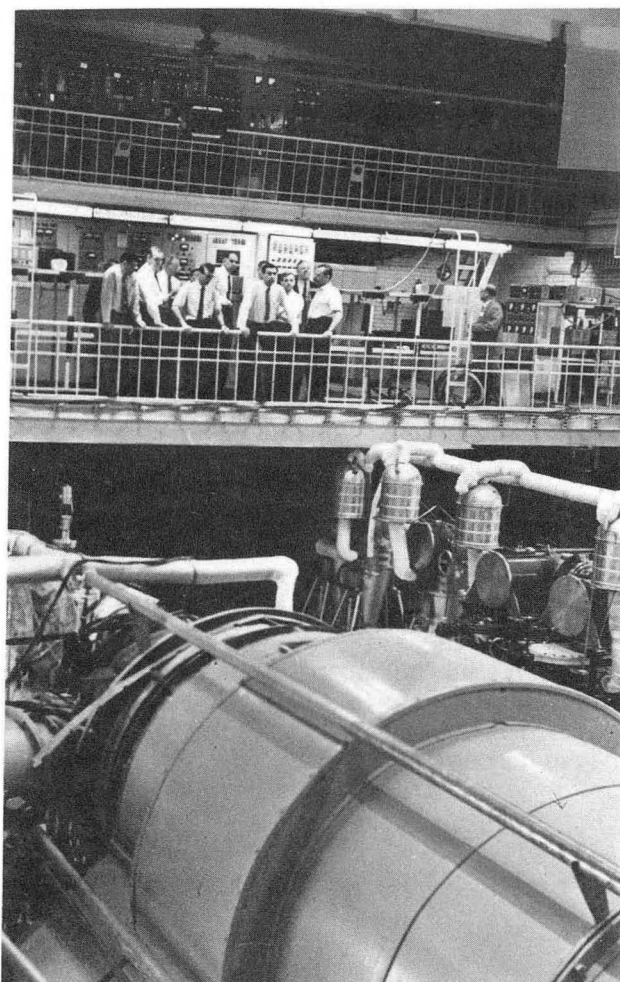
N. A. Vlasov (project leader of the 40-Mev cyclotron) showed us the 150 cm cyclotron (where Flerov bombarded Pu²⁴¹ with O¹⁶ in 1958). M. I. Pevsner (project leader) showed us the 30 Mev linear electron accelerator, which produces neutrons for neutron studies. L. N. Samoylov (who had lost his left eye) showed us low temperature work and use of Fe matrices to obtain strong fields at nuclei. Ye. K. Zavoiskiy (who discovered electronic paramagnetic resonance) showed us his work on sonic magnetization and plastic physics. (Zavoiskiy works independently of Artsimovich.) Voronezh development work is done here. We saw work on alpha spectroscopy by S. A. Baranov. I had my picture taken with Baranov, L. V. Groshev and Ghiorso. We saw the IRT reactor in V. V. Goncharo's department--swimming pool--2 MW, 3.2×10^{13} n/s/cm² which uses 10% U²³⁵ (as oxide) in 9 times as much Mg as U. Al cladding. There are approximately ten of these in the Soviet

*Identified some years later as Chief Architect of the Soviet Union's space program.



Touring Kurchatov Atomic Energy Institute, Moscow, May 22, 1963

L to R: G. Tape, A. Petrosyants, V. Emelyanov, A. P. Aleksandrov, interpreter Apollonov, Seaborg and L. A. Artsimovich



Visit to the Ogra - controlled thermonuclear facility, Moscow, May 22, 1963

Dr. Golovin (on the right) briefs the delegation



Visit to the 2 MW IRT swimming pool reactor at the Kurchatov Atomic Energy Institute, Moscow, May 22, 1963.

L to R: A. Fritsch, I. D. Morokhov, V. V. Goncharov, Seaborg, interpreter Apollonov and A. Petrosyants



Kurchatov Institute of Atomic Energy, May 22, 1963

L to R: Seaborg, Anatolii P. Aleksandrov, G. Tape and Apollonov

Union.

We had dinner at 3:50 p.m., where I presented Aleksandrov with The New World, Transuranium Elements, "Power Report," the 1962 Annual Report and Research supplement, and CP-1 graphite. I also gave CP-1 graphite to Goncharov. Aleksandrov, in a toast, referred to the airplane and its adverse effect on U.S.-USSR relations (U-2 plane?). Fritsch again took polaroid color pictures.

We visited the RPT reactor--under construction. It was started on April 1952, built with 10 MW, graphite-moderated, water-cooled, fuel elements like IRT. It was rebuilt in 1957-58 with 90% U^{235} . They are now rebuilding with Be, H_2O moderation, 20 MW, $2-6 \times 10^{14}$ n/cm²/sec. We also saw the fuel element construction details for the Lenin icebreaker and Voronezh power reactor. N. F. Pravdyuk showed us his Hot Laboratory--the original Hot Laboratory of the Soviet Union. We also saw the plutonium handling chamber, which may be where they handled their original plutonium. We saw much nice work as a result of the use of an electron microscope. They expect to do work on berkelium, californium, etc. I saw G. N. Yakovlev here, although he has moved to Ulyanovsk (New Melekess). In the evening we went to the football game (soccer) with Petrosyants, Baranov, Okun and

others in Lenin Stadium. The stadium holds 102,000 and was nearly filled. Sweden won the football game (1-0) over the Soviet Union.

Thursday, May 23, 1963 - Obninsk

Our entire group was driven to Obninsk (65 miles south of Moscow), where we were met by Petrosyants, Mikolayev (Member of the State Committee), Mikhail P. Rodionov (Director, Obninsk Institute), Demyan M. Ovechkin (Deputy director) and a large crowd of people. Refreshments were served in a club in town. We started our sightseeing tour by seeing film on the 1960 trip of the icebreaker, Lenin. The ship can reach speeds up to 16 knots with 44,000 HP. Her home port is Murmansk. We then went to the Institute where we saw the reactor BR-1. A man named Mikolayev described it to us as type 304 stainless steel, 12 kg Pu metal, 20 tons of Th blanket, 100 W, and was started 1955 with U blanket.

The BR-2 was disassembled for conversion to BR-5, which we saw after lunch. After BR-1, we saw a Na-handling laboratory under V. I. Subbotin and Assistant P. L. Kirillov. This was the first time the primary Na and secondary Na-K circuit was shown.

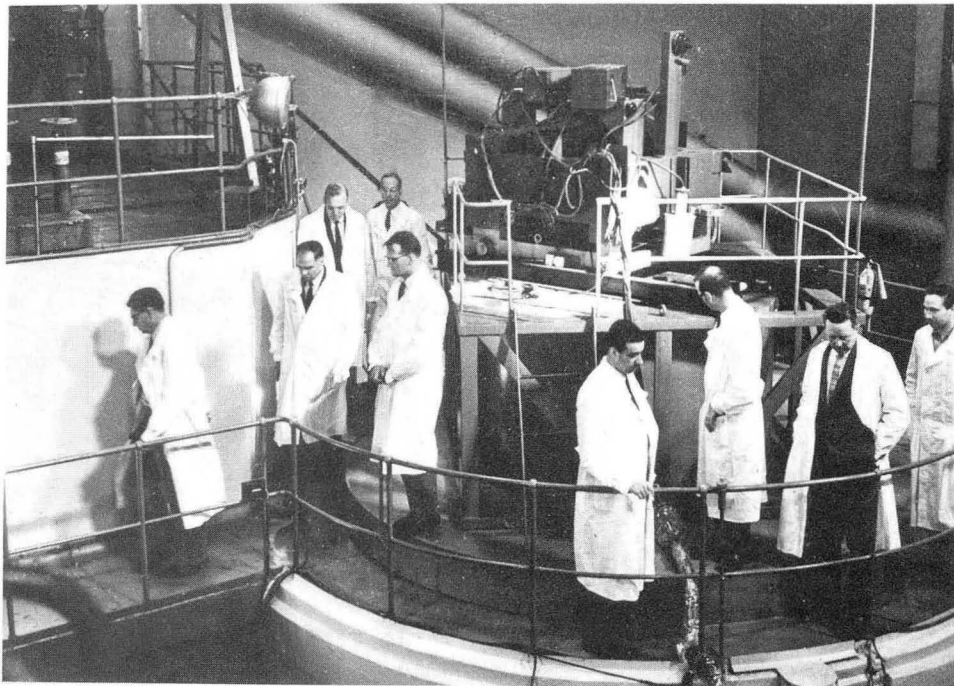
We had lunch at the estate of a former Russian capitalist at Obninsk on the Protva River. Petrosyants left after lunch. Then we saw a BR-5 (5 stands for 5 MLW), Na primary, Na-K secondary cooling, 50 kg PuO₂ which is a stainless steel clad 5 mm, 28 cm, 19 in bundle, 120 bundles, no blanket, 8 x 10¹⁴ center flux. It will have five percent burnout by December 1961 and some loss of fission products. Oleg D. Kazachkovsky is in charge of the fast reactors. There were also explanations by N. N. Aristarkhov and A. V. Karpov.

Tamara S. Belanova (Chief, Photoneutron Laboratory), wife of Kazachkovsky, showed us a photoneutron cross section measurement setup.

Sergeev showed us a mobile reactor: 12,000 Mwt, 1500-2000 KWe with H₂O-H₂O circuits, only 1500 KWe attained--230-240 T total weight without H₂O. This was the first time it had been shown. We were also shown U²³⁵ fuel elements, but Sergeev would not give us the composition. G. N. Ushakov, head of AM-1 (which has produced 5 MWe since 1954, the world's first) showed us this reactor. Orlov, Director of Beloyarsk Power Station, explained the Beloyarsk U-graphite reactor--two H₂O loops, superheat, steam at 500°C, 90 atm., 100 MWe, to start 1963 and a 1 ton 1.5% U²³⁵, with a 2-year fuel cycle 3.5 kg/ton burnout to be built 1 - 1/4 years later. There is a second reactor to be built soon, 200 MWe, which eliminates the second loop. The cost of electricity is 30% higher than the average cost in the USSR but it is competitive in high cost areas. The average cost in the USSR is 0.6 kopeks/KW hr. (6.6s mills/KW hr.).

Friday, May 24, 1963 - Ulyanovsk, New Melekess

The group flew from Vnukovo Airport, south of Moscow to Ulyanovsk (850 km) in a TU-124, two-engine special jet. We had breakfast on the way with V. A. Levsha (Deputy Chairman, State Committee), Vladimir F. Gordeyev (Chief, Research Department, State Committee), Anatoliy I. Belov (new interpreter), Vasilets, Tass Reporter, Khaneselsky (Chief of Research Reactors, State Committee), and others. We were met by D. S. Yurchenko (Director, Institute of Atomic Reactors, New Melekess [85 km from Ulyanovsk]), Y. D. Vorobyev (Deputy Director for Science), and others. We visited Lenin's childhood home (1878-1887) and also saw his birthplace and school. We drove to the Institute (85 km) which was begun in 1958. They showed us an abandoned, half-completed building for a molten salt reactor. After lunch we visited a SM-2, 50 MW, high flux (2.3 x 10¹⁵) reactor. Construction started in 1959 and it went critical in October 1961 with full power



Tour of the BR-5 Reactor, Obninsk, May 23, 1963

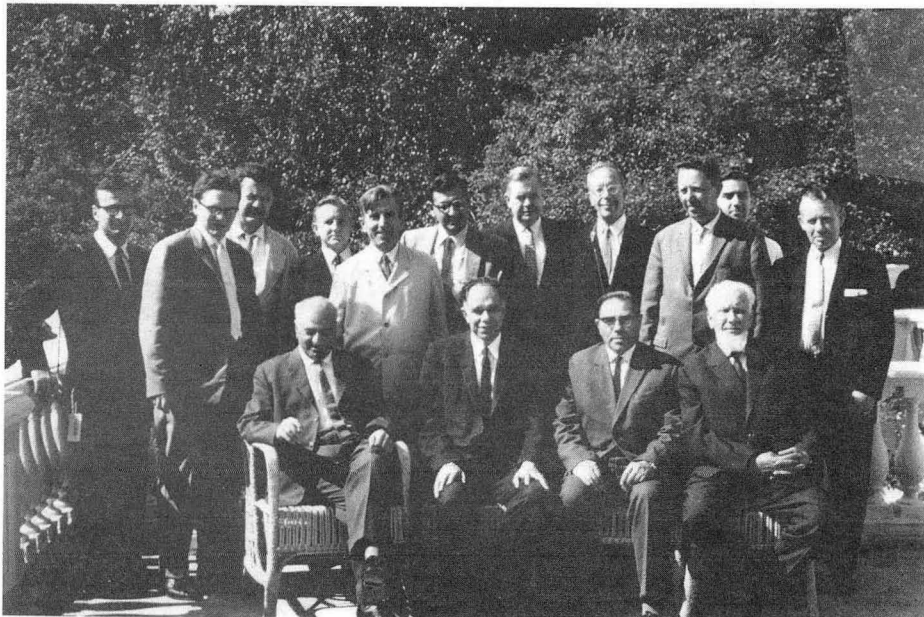
L to R: A. Ghiorso, Seaborg, A. Fritsch, M. Benedict, Apollonov,
A. Crewe, A. Zucker, D. M. Ovechkin



Seaborg with
Tamara S. Belanova
at Obninsk,
May 23, 1963



Crowd at Obninsk upon arrival, May 23, 1963



At Physical-Technical Institute, Obninsk, May 23, 1963.

Seated L to R: A. Petrosyants, Seaborg, Mikołayev,
M. P. Rodinov

Standing L to R: A. Zucker, Apollonov, V. I. Subbotin, A. Wells,
O. D. Kazachkovsky, A. Ghiorso, G. Tape. M. Benedict,
D. M. Ovechkin, A. Crewe and A. Luedecke



At Lenin's childhood home, Ulyanovsk, May 24, 1963

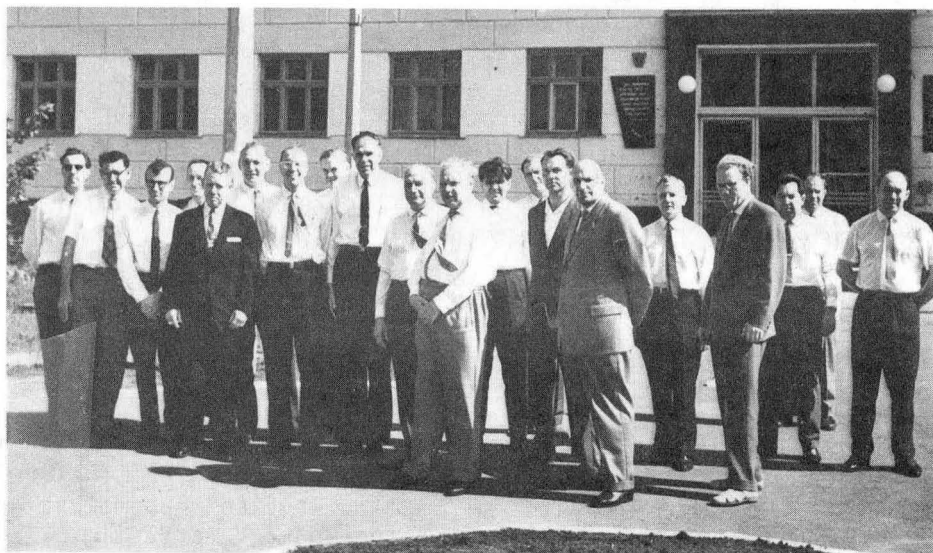


Children at Lenin's childhood home, Ulyanovsk, May 24, 1963



Visit to Scientific Research Institute of Atomic Energy Reactors,
New Melekess, May 24, 1963

L to R: A. Wells, V. F. Gordeyev, A. Luedecke, M. Benedict, V. A. Levsha,
D. S. Yurchenko, Seaborg, A. I. Belov, G. Tape, A. Ghiorso, G. N. Yakovlev,
A. Crewe, A. Zucker, V. I. Klimenkov



At the SM-2 High-Flux Reactor Building at New Melekess, May 24, 1963

L to R: A. Crewe, A. Ghiorso, A. Zucker, C. King, A. Luedecke, A. Fritsch,
M. Benedict, G. Tape, Seaborg, D. S. Yurchenko, V. A. Levsha, A. I. Belov,
H. Okun, two scientists at the Institute, A. Wells, V. A. Tsykanov,
Dr. Khaneselsky, Filippov and V. F. Gordeyev

in November 1962. It has BeO reflector, flux trap, core 250 mm, diameter vessel 1050 mm, reflector 450 mm, water-water, 50 atm., a 40-day fuel cycle--25% burnup with central channel 100 mm x 285 mm, 90% U²³⁵ plus Ni oxides. It cost \$10.4 million rubles without the fuel. It is charged with a 10 g 60% Pu²⁴² and will give a mg of Cf²⁵² in 1965. V. A. Tsykanov is the chief of the SM-2 reactor.

V. I. Klimenkov showed us their Cold Materials Laboratory and Hot Materials Laboratory under construction. They change air 20 times per hour. These are extensive facilities and cost 7.6 million rubles. G. N. Yakovlev is the Director and M. A. Bazhenov, the Chief Engineer of the Radiochemistry Laboratory. Yakovlev showed us the Laboratory including extensive Hot Lab facilities under construction. The latter cost 8.4 million rubles. All of the facilities--reactors, hot labs are connected to a central stack (126 m high, 12 m diameter) through large concrete underground square conduits. The capacity now is 100,000 m³/hr; the capacity will be 500,000 m³/hr. E. V. Borisuk (Director) and V. D. Tetukov (Chief Engineer) showed us their organic reactor. Their ultimate objective is to assemble and disassemble in one month. Men were busy assembling for the first time and still have a month's work to do for a total of 2 - 1/2 months this time. Coolant and moderator is aromatic fraction of diesel fuel (kerosene). This is moveable in 7 boxes, approximately 150 tons without the shield, with 12-15% U²³⁵ oxide fuel, Al cladding, one change per year. It is called ARBUS (Atomic Reactor in Block Assembly).

We saw the building and the foundation for a 75 MW Materials Test Reactor with the completion date set for 1965-66. We climbed to the top of the building for a 50 MWe (single cycle) boiling water reactor. Reactor construction has not started, but they say it will be ready and operating by the time of the 1964 Geneva Conference. There is no containment planned but a Super Heat is possible. It has the same fuel as Voronezh and the cost is 23 million rubles.

After dinner, I gave New World, Annual Reports, Power Report, and CP-1 graphite to Yurchenko, CP-1 graphite to Tsykanov, Transuranium Elements, proof of Man-Made Transuranium Elements to Yakovlev, records and Elements of the Universe to the Recreation Center for young people. On our drive back to Ulyanovsk with Levsha, Gordeyev and Anatoliy Belov, Gordeyev suggested USSR-U.S. collaboration in naming 102, cooperation between USSR-U.S. was extensively discussed, Levsha and Gordeyev pointed out they had broken Soviet rule and showed us reactors under construction (as part of this great effort at cooperation). We also discussed cooperation in high energy accelerators. I mentioned the possible program: USSR build 70 Bev, U.S. 200 Bev, International 800 Bev for cooperation in building accelerators. We flew back to Moscow, Vnukovo Airport, on a TU-124 (8:30 p.m. to 10 p.m. Moscow time, 9:30 p.m. Ulyanovsk time).

Saturday, May 25, 1963 - Leningrad

Our group flew from Sheremetyevo Airport, Moscow to Leningrad (TU-104). We had breakfast at the Astoria Hotel where we stayed. Petrosyants, P. S. Savitskii (State Committee and in charge of Radium Institute and of Isotopes) accompanied us for the whole trip. We were met by Viktor M. Vdovenko (Director, Khlopin Radium Institute), Boris P. Konstantinov (Director, Physical-Technical Institute) and Y. G. Komar (Director, Research Institute of Electro-Physical Apparatus) at the airport. V. V. Shustov, APN reporter and photographer, and Vasilets, Tass reporter, accompanied us for the whole trip all except Ghiorso, Crewe and Zucker who visited the Ioffe Physical Technical Institute with Konstantinov) visited the Khlopin Radium Institute. Our group visited the old building, then the new building which was begun in 1960 and is not entirely complete. We saw photo-plate work of N. A. Perfilov (Deputy Director), the nuclear spectroscopy work of B. S. Dzhelapov, the chemical work of B. P. Nikolsky (Chief Chemistry Program), and G. S. Sinitsyna (unusual uranium peroxide compounds, etc.), the electrolysis of



Standing in front of
photo of V. G. Khlopin at
the Khlopin Radium
Institute, Leningrad,
May 25, 1963

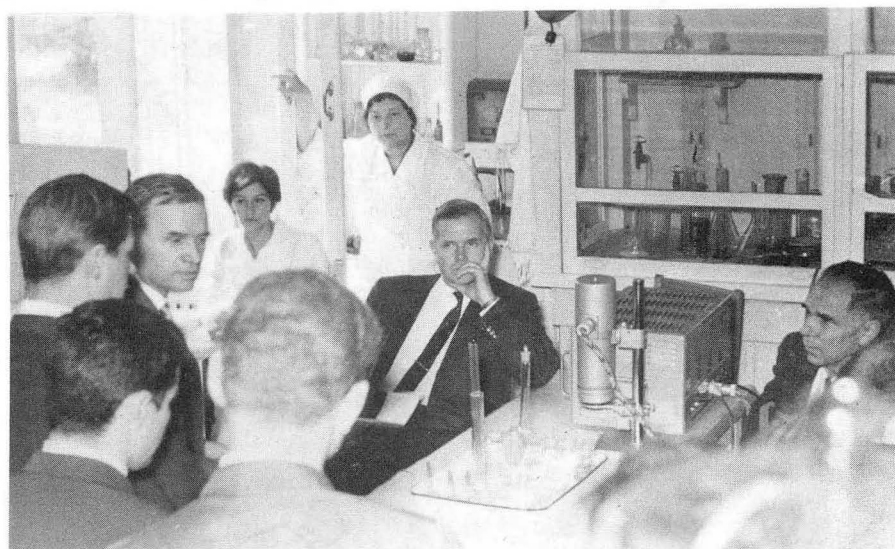
L to R: M. Vdovenko,
A. Fritsch, Seaborg



Anna G. Samartsova working
on sculpture of Seaborg,
Khlopin Radium
Institute, Leningrad,
May 25, 1963



Seaborg standing next to the 6 MeV cyclotron at the Khlopin Radium Institute, Leningrad, May 25, 1963



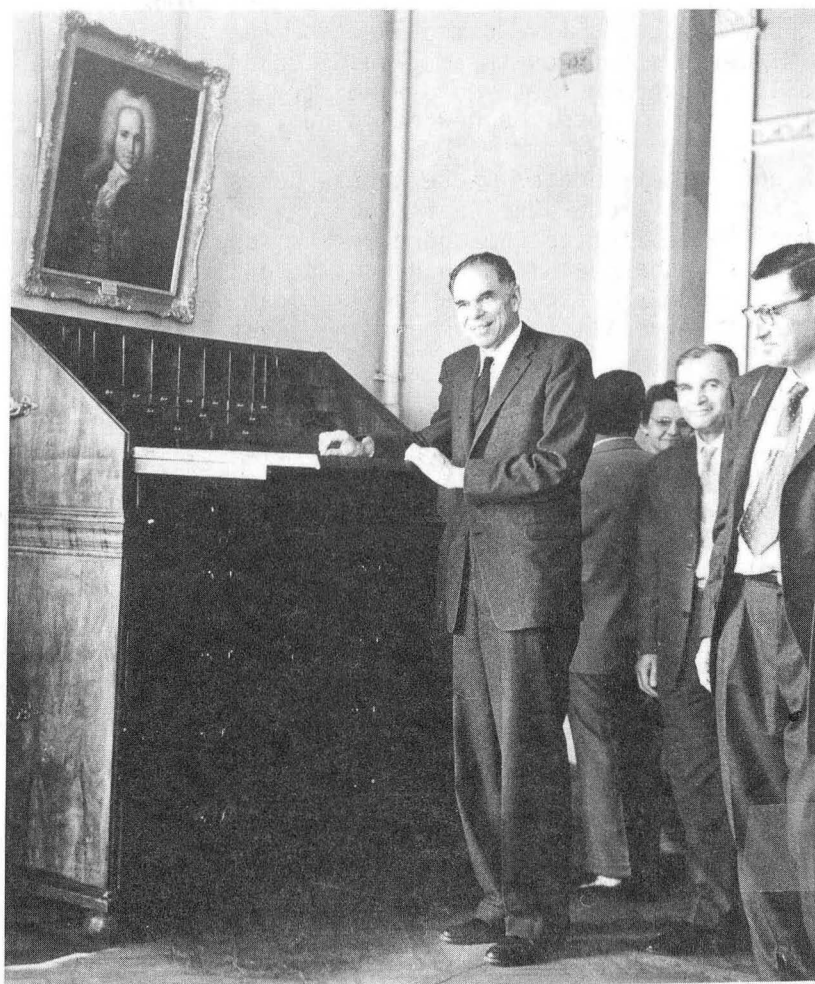
Visit to one of the chemistry laboratories in the Khlopin Radium Institute, Leningrad, May 25, 1963.

L to R: V. M. Vdovenko, G. Tape, Seaborg. To the left of Vdovenko is Alec Rimsky-Korsakov, great-grandson of the composer, who is a scientist at the Institute



Visit to Yefremov
Scientific-Technical
Institute for Electro-
Physical Apparatus,
near Leningrad,
May 25, 1963

L to R: P. S. Savitskii,
V. S. Kandaritskiy,
V. M. Vdovenko, Albert
Ghiorso, Seaborg,
G. Tape, Y. K. Komar,
unidentified,
A. Petrosyan's



Writing desk of
Peter the Great at the
Hermitage, Leningrad,
May 26, 1963

L to R: Seaborg,
V. M. Vdovenko and
Albert Ghiorso

actinides by Anna G. Samartsova (who was working on a sculpture of me), the chemical work of Aleksandr A. Grinberg (who deduced U is unlike W in 1946, thus 106 is eka W), the fallout work of L. I. Gedeonov (who studied Cs¹³⁷, Sr⁹⁰, etc., and deduced the February 1960 French Sahara explosion by Crimea fallout. He said they can determine bomb characteristics by fallout and seemed quite excited and pleased by this apparently new possibility).

We all had lunch at the Radium Institute. Somewhat earlier, Ghiorso, Crewe and Zucker had rejoined us. I received a complete set of the Soviet Radiochemical Journal, reports, etc., including the biography of Khlopin by Vdovenko which he gave me on Sunday. I gave Vdovenko a copy of Transuranium Elements and Samartsova a photograph. I also gave a CP-1 graphite piece for transmittal to Konstantinov.

After lunch we all visited Yefremov Scientific-Technical Research Institute for Electrophysical Apparatus, some 25 miles outside Leningrad. On the way we discussed the naming of 102 with Petrosyants, a subject he brought up. We explained the history and said that if Flerov proved right we could have a joint U.S.-USSR name. He understood, agreed and was very interested. We also discussed his official span of duties, and I got the impression that some military work is under his direction and some is done in the laboratories we visited. He declined to tell me the size of the Soviet budget for atomic energy. At the Electrophysical Apparatus Institute, Komar introduced his staff. They showed us their Alpha CTR machine (work coordinated by Artsimovich). Y. G. Basargin showed us a 1/15 scale model of their Isochronous Cyclotron which will be 240 cm, produce 100 Mev H, and will use electro-static deflection. They plan to build one of these including one for the Radium Institute. (Later I advised Vdovenko to optimize the plan for deuterons.)

F. G. Zhelenznikov showed us an 800 Kv, 400 ma Cockcroft-Walton to be used for an injector into a 100 Mev linac to inject protons into the 70-Bev Serpukhov machine. Anatoliy M. Stolov showed us the magnets development section for accelerators, fusion machines, etc. V. M. Levin showed us the Medical Accelerator, 5 Mev electrons, the 10 cm travelling wave manufactured by industry for hospitals. The rest of the work in process is moving into the new buildings.

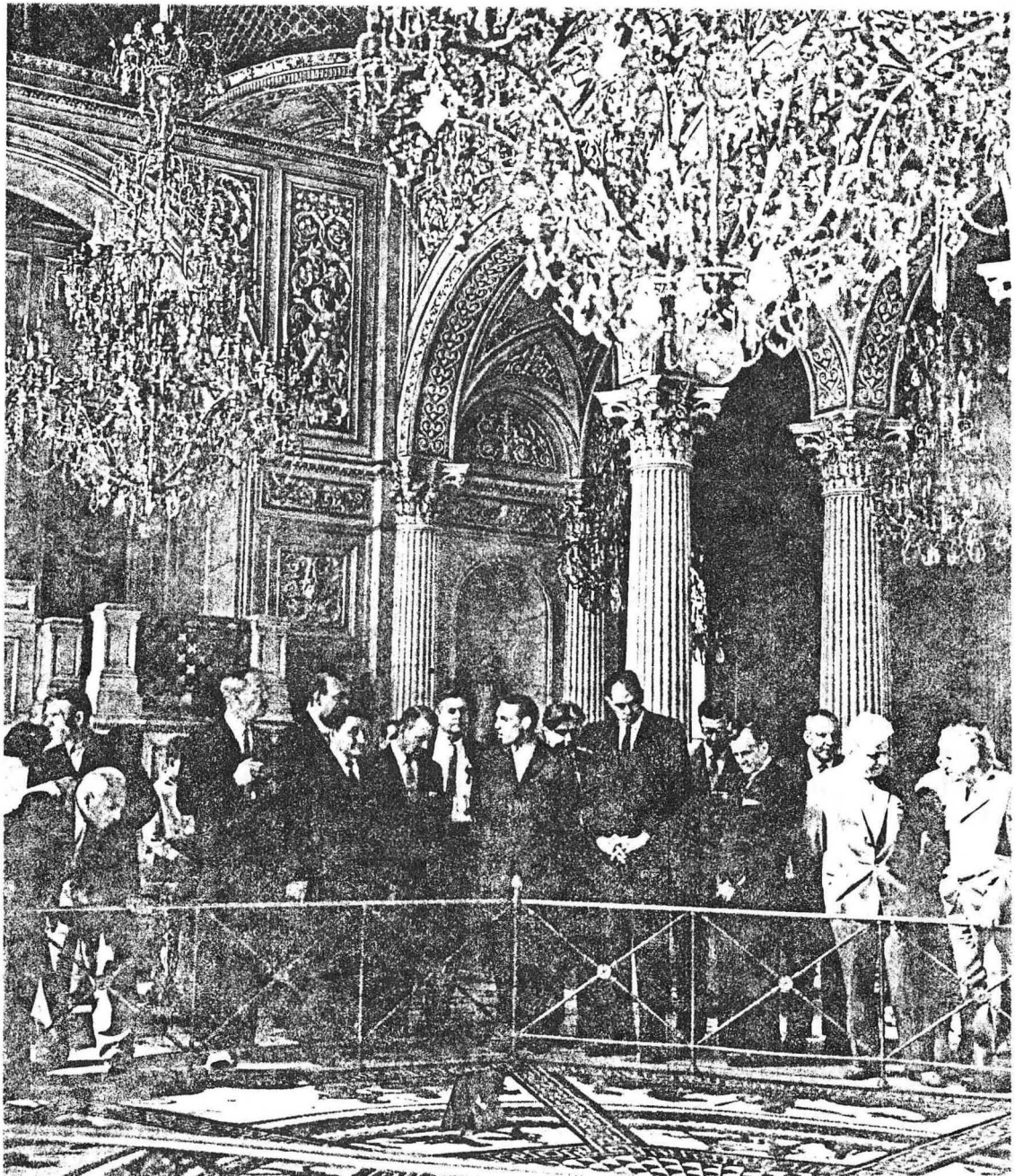
We went to the Kirov Opera and Ballet Theater where we saw Boris Godunov. The Theater is unchanged from Czar days except the Czar's box and the boxes of the nobility are now used by the public. After the opera we had supper in a famous dining room of the Astoria Hotel (the one Hitler had wanted to dine in to celebrate his entry into Leningrad). There was music, including American dance, by a popular dance orchestra with an attractive vocalist. We spent the night at the Astoria.

Sunday, May 26, 1963 - Leningrad

Our group rode in a sightseeing bus and then visited the Hermitage. After lunch at the Astoria we went for a ride on a hydrofoil boat with a speed of 75 km/hr.). Vdovenko, Komar and others spent the day with us. Samartsova is still working on my sculpture. Alec Rimsky-Korsakov (great-grandson of the composer) and others from the Radium Institute joined us for the boat ride. We then flew back to the Moscow Sheremetyevo Airport.

Fritsch, Okun and I rode on the subway and took the 11:10 p.m. train to Voronezh. Ghiorso, Crewe, and Zucker went to Kharhov under the guidance of Konstantin N. Meshcheryakov, Chief, Department of Accelerators and Fusion, and member of the State Committee.

Hermitage Museum, Leningrad, May 26, 1963



L to R: A. M. Petrosyants, (unknown), M. Benedict, A. Fritsch,
Y. G. Komar, A. Luedecke, G. Tape, (unknown), Belov,
Seaborg, A. Ghiorso, A. Wells, Kandaritskiy, Savitskiy,
V. M. Vdovenko

Monday, May 27, 1963 - Voronezh - Novovoronezh

We arrived at Voronezh at 8:45 a.m. and stayed until 9:30 a.m. We then went to Novovoronezh (50 km) on the same train where we arrived at the Kolodesnaja Station. After breakfast we went to the New Voronezh Atomic Power Station. Our hosts were N. A. Rogovin (Chief of Construction who reports to P. S. Neporozhney, Chairman, State Committee of Power Production and Electrification, who before change of titles was Minister of Power Station Construction when Udall was here), I. F. Chepak (Director of the Station and a thermal power engineer), M. A. Borisov (Chief Engineer, power station), P. V. Burlov (of local Management Council), and V. V. Mirnenko (Kandaritskiy's Deputy). Sinev arrived by plane at 1:30 p.m. as he had missed the train last night. Vasilets and Theodore Shabad of the New York Times were in the party.

Part of Obninsk, Novovoronezh, Ulyanovsk and Beloyarsk report to Sinev. Borisov gave a good account of the Voronezh reactors. He is a graduate of Tomsk institute where he was a member of the Elect-Phys. Facility in the army and later State Committee work. They are building reactors at Voronezh (500,000 population) because there is no coal in the region. There is good cooling water from the River Don, good power access lines, and there are 20 square hectares of area in the station.

The first plant will be ready at the end of this year. The reactor is 760 MWT, 200 MWe, water-water; i.e., press. water, 100 atm. 1st cycle 275°C inlet, 250°C outlet, 2nd cycle 32 atm. dry sat. steam 231°C, 6 loops and 3 turbines, 5000 m³/hr each for a total of 27-30,000 m³/hr.

The 2nd unit, identical modernized, perhaps 8 loops, 350-375 MWe will be ready in 1965. Press. vessel (1st unit) is 4 meters diameter x 11 meters high--no outer containment as in the United States. The core diameter is 3 meters, 2.5 met. high, Zr cladding, little Nb. There are unclad boron-steel control rods. The fuel is 1.5-2.5% U²³⁵, 2.5% in center, 40 tons U. lifetime 20-35 years. The turbines are AK-11, 70 M.S. They purify water by distillation, repurify and store wastes. The design was done by the Moscow branch of the Thermal Power Project Organization. It is called VVPR-I. The efficiency is 26.5% net and cost 0.8 kopek/KWH, 20 year amortization, including cost of homes, railroad, etc., but no interest. The second unit will cost 0.6 kopek/KWH. Conventional fuel also costs 0.6 kopek/KWH. Costs of the first unit: reactor 50,000,000 rubles; town 14,000,000 rubles; RR, etc., 10,000,000 rubles with no interest. They charge foreign countries 2 - 1/2%. It is a 6000 hr./yr. operation. Rogovin then gave us details on time scale and described the tour. We made a complete tour and were allowed to take pictures except when viewing canned rotor pumps and valves, which were enclosed. Then Sinev gave us a talk on the Russian Atomic Power program.

Soviet Union has a 20-yr. program for electrification:

1965	520 billion KWH
1970	1000 " "
1980	3000 " "

They must build in

1965	13,000,000 KW
1970	23,000,000 KW

By the end of 1965

150 MW	- 143 plants
200 MW	- 148 "
300 MW	- 15 "
500 MW	- 1 "
800 MW	- 1 "

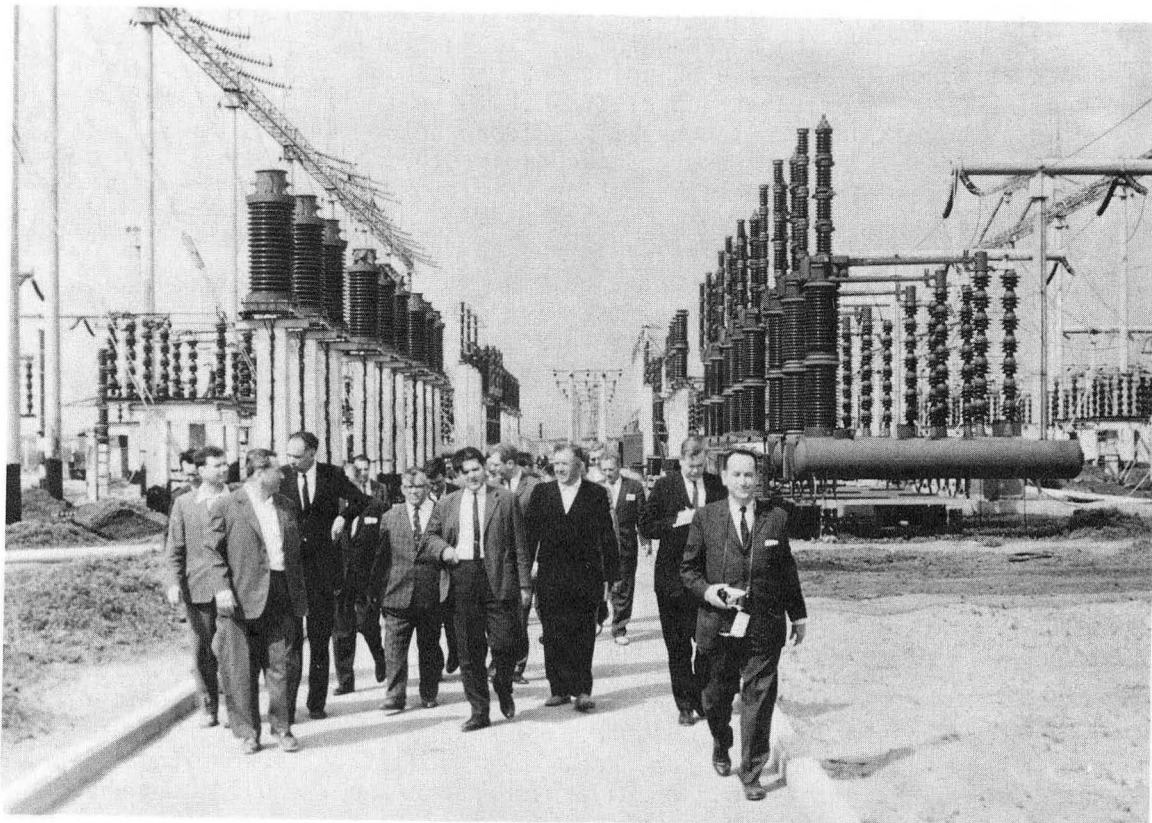
The Soviet Union is overtaking the United States, and Sinev made quite a point of this. The cost of electricity in Siberia is Hydro 0.03 kopek/KWH, Coal 0.16 kopek/KWH. Hence, atomic power is not good in Siberia. However, it is competitive in Central European USSR. They have 500 KV lines and will have 800 KV. Sinev then described the technical aspects: 1. Beloyarsk will have two Obninsk-type graphite, nuclear super heat reactors, like Westinghouse Scott R. 2. They will have the first 100 MWe this year. Corrosion of cladding is a problem but successful to date. 3. They will have the 2nd MWe in 1965. Obninsk (1954) plant is called AM (Atomic Peaceful), Beyolarsk plants are called AMB (Large Peaceful Atomic Reactor). The water-water reactors at Voronezh are like Shippingport and can go to 1000 MWe plus 4000 MWt dual purpose, i.e., heat and electricity. This will be reported at a Canadian Symposium on May 27th by V. A. Sidorenko of the Kurchatov Institute (who works under S. A. Skvortsov, Science Director of this work at Kurchatov Institute). These are competitive at greater than 500 MWe.

I was interviewed by Gridchin of Kemineina, a Voronezh newspaper, and V. Y. Dubinskin of the Voronezh radio station. We had dinner at the Canteen. I gave Chepak New World, Annual Reports, Civilian Power Report, and CP-1 graphite. I also gave CP-1 graphite to Rogovin and Borisov. I gave two records and the Elements of the Universe to the young people of Novovoronezh for use in the club which is being built. Fritsch took three color pictures with the Polaroid for Sinev, Chepak and Rogovin.

We took the train to Voronezh (50 KM from Novovoronezh). Our group, with Sinev and Borisov and Burlov, took a bus tour of Voronezh, followed by supper at the station--where I was interviewed further by Voronezh radio men. During the day there were many references to the Germans' attack on Voronezh in which they destroyed 95% of the city. Also there were many references by Sinev to the accomplishments of Soviets in building, science, engineering, higher education, etc. Voronezh is building one new apartment per hour. I was interviewed by Vasilets (Tass) on the following: 1. the most important impression (transuranium work, High Flux Reactor, similarity of U.S. and Soviet water-cooled power program, Rad. Institute); 2. impression of thermonuclear work (good); 3. of Ulyanovsk radio-chem. (building good foundation); 4. was I shown anything classified (I said no); 5. was I in favor of test ban (I said yes); 6. was I going back to research work as I indicated when I was appointed Chairman, AEC (yes, in a few years or so); 7. was this my first trip to a foreign country since I became Chairman (first special trip yes, but went to IAEA meeting and other countries in September 1961 and 1962); 8. what is value of agreement (help both countries by aid in solving problems and help further good relations due to internationality of science); 9. had we seen full range of peaceful applications in the Soviet Union. (We saw nothing on isotopes or space.)

Miscellaneous: Voluntary retirement age for everyone is 60 with about 65% of salary. One can work longer as long as considered competent by authorities. Retired persons can work two months a year for additional pay. Members of the Central Soviet Academy of Science get an additional stipend of 500 rubles a month--foreign members can collect this during a stay in Russia associated with an Academy Institute.

We took the train back to Moscow which left about 11 p.m.



Visit to the Novovoronezh Nuclear Power Plant, Novovoronezh,
May 27, 1963.

L to R (foreground): M. A. Borisov, I. F. Chepak, Seaborg,
N. M. Sinev, A. I. Belov, another Soviet, G. Tape and C. King

Tuesday, May 28, 1963 - Moscow, Dubna

The train from Voronezh arrived in Moscow at 9:10 a.m. Our whole group (including Ghiorso, Zucker and Crewe, returned from Kharkov) were driven to the Joint Institute for Nuclear Research at Dubna (120 km) arriving at 12:30 p.m. After a quick lunch the whole group visited Flerov's laboratory where Flerov described his $U^{238} + Ne^{20} - 102^{256} + 4n$ experiment.

Ghiorso, Zucker and I visited their Heavy Ion Cyclotron which has large steering magnets. The beam is being extracted with a high yield planned. Flerov plans experiments of the type Cf + Xe .

We visited their 10 Bev synchrotron under Ivan V. Chuvilo and their Fast Pulsed Reactor (fixed Pu with U^{235} rotating on a huge flywheel to give 40 microsecond chain reaction pulse) under I. M. Frank. Others of our group also visited there. The Laboratory of Nuclear Problems (not visited) is under Dzhelepov and includes a 680 Mev Synchrocyclotron. A fifth laboratory (the total is five at Dubna) is for Theoretical Physics. Before leaving, I gave to Director Dimitrii I. Blokhintsev a copy of The New World, annual reports, Transuranium Elements and CP-1 graphite. I gave a proof copy of Man-Made Transuranium Elements to Flerov. I was interviewed by a radio reporter (by transcription) probably from Moscow radio.

I rode back to Moscow with Flerov, V. M. Strutinskii and Zucker. We debated the test ban issue. They followed the Soviet line that inspection is not needed. We also discussed the naming of 102 and emphasized the importance of confirming their 1958 work. Flerov wants to discuss this more at tomorrow's State Committee reception.

We returned to Moscow for a 6 p.m. to 8 p.m. reception in honor of the U.S. delegation given by Ambassador and Mrs. Kohler at Spaso House. Soviet scientists and engineers from Dubna, Atomic Energy Institute, Obninsk, State Committee, Spitsyn, Semenov, Vinogradov, and many others, including V. A. Zorin (Deputy Foreign Minister) attended. Petrosyants and I discussed U.S. and USSR atomic power programs in the presence of reporters for Time (Shenker), UPI (Shapiro) and the New York Times (Shabad). At one stage Petrosyants said McCone had not implemented the McCone-Emelyanov Agreement, which I said was not true. I requested Blokhintsev to invite Earl Hyde to Dubna. This was an extremely friendly gathering with much conviviality.

Ghiorso, Benedict, Tape, Luedecke, Wells and I had dinner at Spaso House.

Wednesday, May 29, 1963 - Moscow

Ghiorso visited Dubna again, and Zucker, Tape, Crewe and Luedecke visited Serpukhov where a 70 Bev accelerator is being built.

I had an appointment for an hour and a quarter (10 a.m. to 11:15 a.m.) with Leonid Ilyich Brezhnev, Chairman of the Presidium of the USSR Supreme Soviet. (Two days before, my Soviet hosts proudly told me they had made an appointment for me with an important official of the Soviet government, namely, the President. When I indicated some hesitation or lack of knowledge of this individual, they hastened to assure me that this presented a very unusual opportunity for me, because the President, a man named Leonid Brezhnev, was destined in their opinion to play a very important role in the future of the Soviet government.)

The meeting took place in the Kremlin office building (their "White House")



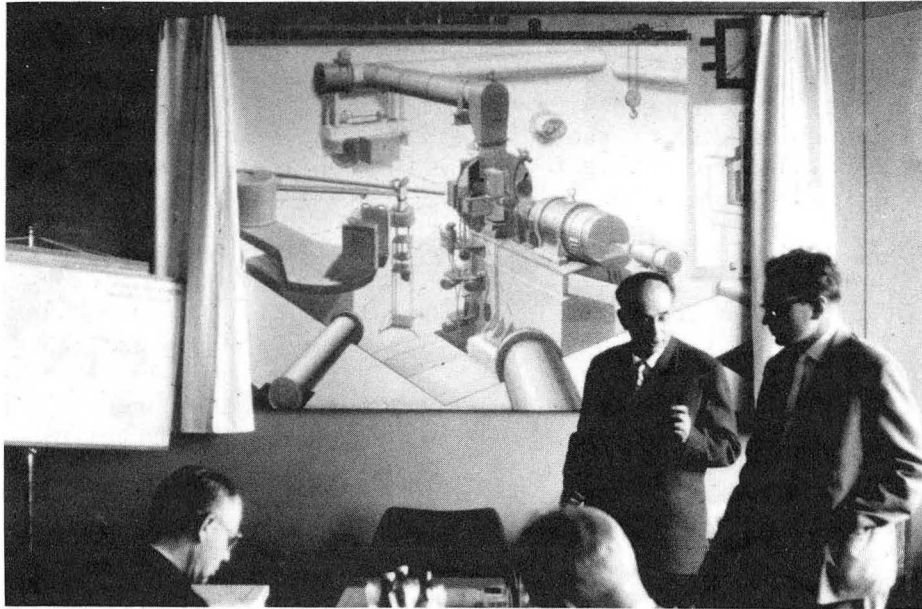
Visit to the Joint Institute
for Nuclear Research at Dubna,
May 28, 1963

L to R: I. D. Morokhov,
G. N. Flerov, Seaborg,
D. I. Blokhinstsev, G. Tape,
A. Zucker, A. Ghiorso,
V. F. Gordeyev, unknown



At the Heavy Ion Cyclotron,
Dubna, May 28, 1963

L to R: Seaborg, G. N. Flerov
and V. M. Strutinskii



Dr. Frank describing the Fast Pulsed Reactor, Dubna, May 28, 1963
At right is interpreter Apollonov



Reception at U.S. Embassy (Spaso House), Moscow, May 28, 1963
L to R: A. M. Petrosyants, Ambassador Kohler, H. Okun and Seaborg

where Khrushchev also has his office. Petrosyants was present, also Anatoliy Belov (State Committee for the Use of Atomic Energy) who acted as interpreter, I. V. Tikhonov (same Committee) who took notes for the State Committee on the use of Atomic Energy, and Herbert Okun, who took notes for me and the U.S. Embassy.

Brezhnev seemed a personable man of pleasant appearance, about 55 or so, with more of a Western manner than most Soviet officials. He first asked me if this was my first visit to the Soviet Union. When I replied that it was, he said he thought it was a good start and added: "Good relations require frequent visits." He agreed with me that this was particularly true in the field of science because of the international aspect of scientific research, which makes science an excellent vehicle for continuing contact and the development of good relations.

I noted that my visit to the Soviet Union was a short one--too short according to Petrosyants--and that I was sorry not to have the opportunity to visit the new scientific center at Novosibirsk. Brezhnev replied that he had visited the establishment on two occasions, the last time, three years ago. He said that a great scientific center is being built there, on a large scale and in a very picturesque location. He added that the state was spared no expense in this endeavor and that Academician Mikhail Alekseyevich Lavrentyev had reported to him that work was almost finished on the site. I asked when the work had begun on the center, and Brezhnev said it had begun six years ago. Petrosyants noted that such prominent scientists as Lavrentyev, Marchuk, and Sobolev now work in Novosibirsk. Brezhnev pointed out that the center carries on a very broad program of scientific research, and said that I should include Novosibirsk in the itinerary of a future visit. I said that I hoped Petrosyants could visit the United States this year, perhaps in October or November.

Answering Brezhnev's question whether I found the atmosphere open during my visit, I said that I thought it was. He said that the Chairman of the State Committee (Petrosyants) was the type of man who wanted to open things for me and that the Government had given him instructions to show me "everything." When I commented that the delegation had been well fed on its trip, Brezhnev noted that Russian cuisine was varied and heavy. He described in detail the manifold aspects of the cuisine of the various regions and Republics of the USSR. We discussed sports in the USSR, and Brezhnev remarked that the Soviet people are passionate soccer fans.

Noting that I had visited only the Russian republic during my travels in the USSR, Brezhnev spoke about the other interesting national republics, with special stress on the Central Asian republics. He declared that before the revolution they were semi-colonies of the Czarist regime and very backward, whereas now they have everything--agriculture, industry, and an active cultural life. He said that agriculture, in particular, was on a very high level in the Central Asian republics and that Uzbekistan alone produces more than three million tons of cotton a year.

Brezhnev asked for my impressions of Moscow, Leningrad, and other cities I had visited. I said it was hard to judge since I had never been in the USSR before but that there was a lot of construction going on. Brezhnev agreed, noting that in Moscow 3.7 million square meters of new housing are being built a year, in addition to the reconstruction of the city. He said that new types of buildings--skyscrapers and open-air housing projects--were being built and that most Soviet housing construction used prefabricated panels of pre-stressed concrete. I observed that the quality of construction in other

Soviet cities seemed superior to that in Moscow. Brezhnev replied that he would not conceal the fact that after the war the Soviet government had to work on its industry, and this had held back housing construction and caused difficulties. Several years ago, he continued, a housing program had been adopted with the principle of one family per apartment. Brezhnev said that now the USSR was sending its architects abroad to study the construction of housing and office buildings. He said Soviet architects had already visited France, Italy, and Austria but that he was not sure whether any had gone to America. Brezhnev said that only yesterday a Government decision had been made to send more Soviet architects abroad to study advanced techniques. He noted that a site was going to be set aside in Moscow where foreign architects would be invited to design buildings on an experimental basis and that the best designs would be adopted for use in the USSR.

I commented on Brezhnev's apparent scientific-technical background, and he discussed his career. He agreed that he had had technical training as a metallurgist but pointed out that for more than 25 years he has been in Party work. "In my Party work, I've always been concerned with industry," he remarked, citing his work in Zaporozhye, Dnepropetrovsk, Moldavia and Kazakhstan. He said that for several years he had been Secretary of the Central Committee where he was responsible for the work of industry and construction. He concluded this outline of his career by saying that he was now in the Government. Brezhnev further noted that metallurgy seemed to run in his family, for his grandfather, father, brother, sister, and son were all metallurgists and, in addition, all worked at the same plant. Brezhnev also noted that his father-in-law had been a railway engineer for 45 years and now was pensioned.

We agreed that the world today lives in a scientific society. He said that he has been working in Moscow for a relatively short time, less than ten years, and in that span he has seen sputniks and spaceships. He stated that he had visited plants where such equipment is manufactured (it is possible for members of the Government to visit such plants) and that he had been astonished by what he saw.

I remarked that several of my books had been translated into Russian and were used in Soviet schools. He said that the USSR translates many books, both fiction and science, and has a special publishing house for such work. I asked whether the USSR pays royalties to foreign authors, and Brezhnev said, "Yes, I think so."

He asked me for my opinion of what I had seen and asked me to criticize boldly. I said I had seen a lot, both Soviet work in my own scientific specialty of the transuranium elements as well as work in the reactor field. After reviewing briefly the work being carried on at various Soviet installations, I remarked that a solid base was being built. I commented that the future would depend on the people concerned, and the the Soviet Government was giving them a lot of support. Brezhnev said jocularly that they ask for a lot of money, and Petrosyants interjected quickly: "And thank God we get it." On the subject of funds, I said that I had asked Petrosyants what his total budget was but that I had not received any answer. Petrosyants said, rather apologetically, that because of the "vertical structure" of his State Committee, "we couldn't let you know without lying, and we don't lie."

Brezhnev said that the USSR expected a lot from radiochemistry. I remarked that at the Khoplin Institute in Leingrad a solid base was being built, but that the results would come in the future. Brezhnev said: "It's very important that you don't stay too far ahead of us," and Petrosyants added that

this work was not all peaceful. Brezhnev noted that as long as the U.S. was peaceful things would be all right.

Brezhnev agreed with my statement that the Soviet Government appears to understand the importance of basic science and cited the Soviet chemical industry as an example. Momentarily confusing the functions of Baibakov and Tikhomirov, he said that the Soviet Union was investing heavily in this field.

He asked me about Soviet atomic power plants and whether I thought that Soviet scientists were working in the proper direction. I replied that the Soviet approach was very similar to ours and that similar problems were being encountered, such as corrosion. I said that cooperation in solving such problems would help both countries, and Brezhnev replied that he would welcome such cooperation. He agreed with my statement that there was a place for atomic power now in the economies of both countries, particularly in areas where other sources of power are scarce and expensive.

As a memento of my visit, I presented him a square, transparent paperweight, containing (as I explained) a small piece of the original graphite taken from the reactor (CP-1) in which the world's first self-sustaining chain reaction was achieved on December 2, 1942, in Chicago, and Brezhnev responded to this gift with great warmth. After thanking me, Brezhnev said that he wanted to leave the subject of science. He said that I would doubtless meet with President Kennedy upon my return and that he wanted me to tell the President that Khrushchev means what he says about peaceful coexistence and peaceful cooperation in his speeches, addresses, and documents sent to the President. "This is not propaganda," he said, "it is the sincere desire of our Government, our people, and of our Party, which leads the country. I can't say any more than that. I hope that this area will be as successful as your scientific contacts. Please tell President Kennedy this, even though I don't know him. And give my best wishes to him and his family." I replied that I would give this message to the President, who is a fine man. I said that Brezhnev would feel this way if they ever had the opportunity to meet someday. Brezhnev ended this conversation by declaring that if they met he thought the President would like him because of his candor and openheartedness.

Brezhnev's manner was warm and friendly; he seemed to display a good understanding of science and technology when he spoke of the details of the work in various institutes. All in all he made a favorable impression of a man who wanted to get along with the United States. My talk with him was perhaps even more interesting in retrospect, since his replacement of Khrushchev as First Secretary of the Communist Party of the Soviet Union occurred less than a year and a half later. I think it is worth mentioning that although at the time of our meeting a number of people regarded him as a mere figurehead, the opinion was growing among certain experts (including Ambassador Kohler) that he was assuming a position of increasing importance and that - I was told prophetically - he might actually be the successor to Khrushchev. I had the impression which I could not document, that he spoke as though he anticipated his future role in government.

I was interviewed by V. J. Silantev, an Izvestia reporter--the article appeared in the Thursday paper. After this interview Fritsch and I took movies in the Kremlin area and visited the GUM Department Store. Fritsch and I had lunch with Ambassador and Mrs. Kohler at Spaso House. At 3 p.m. I had an appointment with Yelutin, Minister of Higher and Secondary Education along with Okun, Fritsch and interpreter Anatoliy I. Belov and Emelyanov. (Pravda reporter Golovachev was also present.) I suggested to Yelutin that the United States and the Soviet Union exchange Science Fair winners for competition with

finalists in our countries. Yelutin is very interested. He will look into it and let me know. I then had an interview with Golovachev of Pravda on my impression of the Soviet program. I commented favorably on the Ulyanovsk high flux reactor, Controlled thermonuclear work and Flerov's work on 102²⁵⁶. I emphasized my belief in the value of cooperation in the peaceful uses of atomic energy. From 5 p.m. to 7:30 p.m. I attended a reception at the Prague Hotel given for the American delegation by the State Committee. I gave and received many gifts.

I received books and a model of the back side of the moon and a Sputnik from Keldysh. I received many Russian science books from Petrosyants including a Russian version of Katz and Seaborg, Chemistry of the Actinide Elements. I learned that I will receive over 4000 rubles in royalties for my books translated into Russian, but it isn't clear which books this corresponds to. I gave New World, Atomic Glossary, Annual Reports, Transuranium Elements, Elements of the Universe, CP-1 graphite, film on xenon compounds, summaries of U.S. power reactor characteristics, records, large lens Polaroid camera (used by Fritsch to take many color pictures) and six packs of color film to Petrosyants. I gave records, a copy of Elements of the Universe and handkerchiefs with an atomic insignia to Morokhov, Emelyanov, Sinev and Levsha. I received many copies of pictures taken during our visits to labs and institutes, as did other members of our delegation. People from the Academy of Science (Keldysh, Semenov and Mrs. Semenov, Millionshchikov), Dubna (Blokhintsev, Flerov), the Atomic Energy Institute (Artsimovich), State Committee, and Ulyanovsk, and others were at the reception.

Fritsch and I had dinner with Ambassador and Mrs. Kohler at Spaso House. I gave the automatic Polaroid camera, six packs of color film and three black and white packs of film to Ambassador Kohler.

Thursday, May 30, 1963 - Moscow

I held a press conference at the Embassy (near Spaso House) with 25-30 Soviet and foreign reporters present, including representatives of Pravda, Izvestia, Moscow News, New York Times, Time, AP, UPI, and many others. I began by introducing the delegation and saying that our delegation had been warmly received, had seen everything they asked to see, and more, and that the discussions had been held within the framework of the peaceful uses of atomic energy. For about 20 minutes I then described our itinerary and what we saw. I then answered questions such as: 1. why not name element 102 Russamerium (I said Amerussium might be better, but seriously this should be left to the scientists involved, after they were sure the Stockholm work is wrong), 2. who is ahead in development of atomic power (this depends on the degree of effort and actually U.S. and USSR programs have many similarities which I described and Benedict said the United States is ahead in breadth and number of KW), 3. will I mention Flerov's work in revision of Elements of the Universe--I answered that I may not revise but if I do it is not consistent with this book to do so, but, if I revise Man-Man Transuranium Elements, I will mention Flerov's 102²⁵⁶, 4. will cryogenics have application to nuclear physics (yes, already has in low temperature nuclear alignment experiments, will probably have for accelerators and, Benedict added, for controlled thermonuclear work), 5. is Soviet ahead of the United States in some areas of nuclear physics (ahead in some like CTR, even in some, behind in others--difficult to identify except in detail), 6. were we satisfied with results of visit (yes, as I said in introductory statement), 7. how can scientists of the United States and the Soviet Union further good relations (by such acts as the agreement signed a week ago Tuesday and visits like the present one and those to come under the agreement), 8. was I optimistic about

implementation of Agreement (yes, a good start has already been made), 9. was Brezhnev's talk all courtesy or some substantive (difficult to define substantive).

We met in the secure room at the Embassy to discuss how our report will be written. Each member will be given responsibility to cover certain institutes, sites, etc., and the others will send their material to the proper individuals. We hope to receive their individual reports in Washington by Monday, June 10th, or soon after and then, after some editing in Washington, the delegation will assemble in Washington, H Street headquarters on Thursday, June 13th, and Friday morning, June 14th, to read each other's edited reports.

I was then interviewed by Henry Shapiro of UPI (who had already written a story describing the friendly atmosphere at the May 28th Spaso House reception) for a human interest story. I told him about 1. the translation of my books, especially, Elements of the Universe, 2. Samartsova's sculpture project, 3. friendly and unusual crowd reception at Obninsk and Ulyanovsk, 4. my interest in transuranium work at Dubna, Ulyanovsk, and Radium Institute, 5. my interest in the 1935 cyclotron at Radium Institute, 6. outstanding Soviet work in CTR and Flerov's work on element 102, 7. parallel U.S. and USSR approaches in the development of nuclear power, 8. that Brezhnev's talk was mostly courtesy with some substantive matters. Ambassador Kohler gave Shapiro two pictures. One of Petrosyants and me and one of Kohler, Petrosyants, me and others, which Shapiro will send to London for possible use and then return to Kohler.

Fritsch and I then had lunch at Spaso House with Ambassador and Mrs. Kohler and Bob Armstrong. We went to the Sheremetyevo Airport where Fritsch and I bought many gifts. There we met Petrosyants, Levsha, Sinev, Morokhov, Kandaritskiy, Filippov, Vladimir Przhetsky and others. Petrosyants gave me many gifts such as Russian records, more pictures of our visit, an unusually fine enlargement of a picture of me and some wrapped unidentified gifts, some books, etc.

I took Petrosyants aside and told him the the United States is insisting on safeguards for the Indian reactor that an American company is furnishing them, which is applying safeguards through IAEA, if possible, or otherwise through bilateral. He seemed pleased and approved such efforts. I asked if the Soviet Union planned to act similarly in the case of reactors they sell, for example, to China. He replied that this is a complicated question that cannot be easily or immediately answered. We agreed that these are serious matters requiring further consideration.

The delegation (except for Tape and Zucker who returned separately) left Moscow at about 4 p.m. and flew over Byelorussia, Poland, Czechoslovakia, and West Germany and arrived in Paris (Orly) at about 6 p.m. We were met by Abraham Friedman and James Ammons of our USAEC Paris office. We stayed at the Hotel Continental.

Our trip was profoundly interesting and satisfying to all of us as scientists and simply as human beings, who were glad of this chance to become somewhat acquainted with the land and the people of the Soviet Union. It was also deeply encouraging with respect to our hopes for peaceful nuclear cooperation between our countries and constructive exchanges in general. I wrote in my Foreword to our published Trip Report:

"My visit to the Soviet Union with the other members of the U.S. Atomic Energy Delegation affirms my belief that science can successfully serve as a common

meeting ground for East and West. The basic principles and methods of science are invariant; they are the same for the East and the West. Isaac Newton's third law of motion works as well for Soviet space flights as it does for those of the United States.

Both sides need a beginning--a beginning which can hopefully lead to mutual trust and which will facilitate the freer exchange of information and ideas. Science is as good a place as any from which to start since it is measured against the criteria of nature, rather than the judgment of persons, and therefore is more removed, perhaps, than other fields from the arena of political and social emotions.

I am hopeful that the fine spirit that existed between our delegation and its Soviet hosts is indicative of a growing desire for constructive cooperation, and that this attitude will continue so that exchanges between our countries may broaden and contribute to a peaceful settlement of our differences."

And our report concluded:

"All members of the U.S. delegation to the Soviet Union felt that the trip was quite rewarding and worthwhile. A considerable amount of new information and insight into the Soviet Union's programs in nuclear energy were gained. Not only were a number of sites visited which never before were seen by Western groups, but tours of institutes and installations previously visited were in general more extensive and complete.

If, as expressed by the Soviet hosts, this visit was indicative of the cooperative attitude that the USSR proposes to take toward the Memorandum on Cooperation in the Peaceful Utilization of Atomic Energy, signed by Chairman Seaborg and Chairman Petrosyants in Moscow at the start of this trip, then in fact it would appear reasonable to anticipate that both parties to the agreement will profit greatly from it. It was clearly stated by several of the hosts during the trip that the USSR had broken precedent and had shown, in many cases, reactors and apparatus still under construction. Generally, the Soviets prefer to withhold visits to sites until work is completed so as to give a more positive impression.

As was evident, the exchange of scientific ideas and information is welcomed by the Soviet scientific community. The enthusiasm with which the U.S. scientific delegation was greeted by Soviet scientists and Soviet people met during the visit was notable. As has been observed by other delegations and visitors to the Soviet Union, science appears to represent a positive link which can be advantageously used to bridge the gap that now exists between the two societies.

It is deemed beyond the province of this report to consider in detail the social life which the delegation encountered during the trip. Briefly, besides the innumerable excellent banquets, the group also attended a concert of the Red Army Band and chorus and saw the Swan Lake ballet in the new Palace of Congresses within the Kremlin. In Leningrad, the delegation had the opportunity to hear the opera, Boris Godunov, in the former Royal Opera House. Members of the group also were guests at an international soccer match in Lenin Stadium, Moscow. Finally, there were several social receptions which were notable for the warm spirit of friendship evidenced by all the guests.

One sidelight on the delegation's trip, which was a measure of the friendliness of the visit, was the innumerable exchanges of gifts. At each site appropriate mementos of the U.S. delegation's visit were given by

Chairman Seaborg and other members of the party. In exchange, in many instances, the group received books or scientific journals concerning either the institute being visited or a Russian translation of one of several of the books written by various members of the U.S. delegation. Highlights of these exchanges of gifts were the presentation of the folio commemorating the discovery of element 101, mendelevium, to President Keldysh of the USSR Academy of Sciences and the exchange of gifts with Chairman Petrosyants at a reception given by the State Committee during the final day of the visit.

Through the kind auspices of Dr. Land of the Polaroid-Land Corporation, the delegation had obtained a Polaroid camera with an ample supply of color film. Numerous one-minute color photographs were taken throughout the tour which were then presented to the Soviet scientists at the various sites. These always made a fine impression. Upon departure, Dr. Seaborg presented Chairman Petrosyants with the camera for his personal use, together with a supply of color film. In return, Chairman Seaborg and the other members of the delegation received a large quantity of photographs taken of the party throughout its visit to the Soviet Union. Generally, in the many institutes and sites visited, the delegation was not permitted to take pictures. However, the State Committee provided an adequate number of photographers to cover the visit.

A few specific conclusions regarding the delegation's visit to the Soviet Union's nuclear energy sites can be made. Contrary to the U.S. program, there is little biological work being done in the Soviet Union nuclear program (or at least little was shown). Although this was not one of the main interests of the members of the delegation, the only indication that biological work in the atomic energy program was being conducted was at the Kurchatov Atomic Energy Institute where they had recently begun a biology program. The only other biological work that was seen was at the Chemical Physics Institute of the Academy of Sciences.

Noticeably different in approach from this country was the tendency to consolidate in several large institutes all the research in a scientific field. For example, the Kurchatov Atomic Energy Institute is quite large and equal to the largest national laboratories in the U.S. In the U.S., although there are several national laboratories, there is also a strong effort to diversify nuclear energy research into the many universities and colleges of the country in order to conduct research in conjunction with the training and education of new scientists. This did not appear as evident in the USSR.

With few exceptions, the lack of experimental equipment in the large experimental facilities visited by the delegation was noticeable. It was the group's general impression that the experimental gear had been removed for the visit in an attempt to give an impression of orderliness. This was unfortunate, since it would have been of more scientific benefit to see the equipment and discuss the experiments in more detail.

The U.S. delegation had known prior to the trip that the Soviet attitude regarding nuclear safety was somewhat different from that in the U.S. Whereas the Soviet Union is as sensitive to the inherent dangers connected with the handling of radioactive isotopes either in fission product studies, radiochemical work, or hot cell studies, they take a decidedly different attitude toward nuclear reactor safety. During the visit to the nuclear reactors in the Soviet Union, no air-tight containment structures were seen. The prevalent attitude apparently is that once a reactor has been safely designed it is safe and reactor accidents cannot happen.

Also, reactors are built extremely close to one another, such as at Novovoronezh and New Melekhov, in order to take advantage of common facilities such as water lines or ventilation systems. On the other hand, the Soviets are concerned with exposure of workers to radiation. The normal work week for such employees in the Soviet Union is 35 hours, compared with a 40-hour average elsewhere in the USSR. Paradoxically, of course, at no point in the delegation's visit were the members of the delegation given film badges or other dosimeters, hard hats, or safety shoes, although numerous construction sites and radiation areas were visited.

The final conclusion of the delegation was that the Soviet Union's nuclear energy program is competent and that in many areas a very ambitious and aggressive attitude is in evidence, such as in high energy accelerators, controlled thermonuclear reactions, and transuranium research. It was clear that the Soviet scientists are quick to assess the value of any newly-discovered device, theory, or principle, and then to attempt to improve upon the original discovery. In this way they are among the leaders in such fields as alpha spectroscopy, neutron capture gamma ray work, and the discovery of new transuranium elements and isotopes. The Soviet Union will for a time have the world's highest energy electron linear accelerator at Kharkov and the world's highest energy proton accelerator at Serpukhov. There was no evidence to show that the Soviets will not continue to hard press the U.S. in years to come."

These were the themes I emphasized when I reported to President Kennedy on our trip. I met him at the White House on June 14, 1963. After first giving him the message Brezhnev had asked me to relay from Khrushchev, I described my meeting with Brezhnev and discussed the speculation that he might be Khrushchev's successor. I went on to give an account of our trip and my impressions:

". . . I said that their work in nuclear power is similar to ours, but they are not developing as many varieties and do not have nearly as much power on the line. They believe, however, just as we do, that nuclear power has a role to play and that it will be competitive in high cost areas where the price of coal is high. One reason they are not so far along as we is probably that they haven't pressed so hard, due to their ample sources of conventional power. I said, however, that they are building on a broad base and will have a good future program in this and all other areas of peaceful nuclear applications and that their budget for the peaceful uses of atomic energy is probably about equivalent to ours.

I said that they have a program in controlled thermonuclear reactions that is at least equivalent to ours, and their budget in this field is probably larger than ours, but I reminded the President that this is a field in which the solutions probably will not come for another 20 or more years.

I said that they are making an extremely large effort in the field of transuranium elements, probably at least partly with a view to the prestige that would be gained through discovery of a new element.

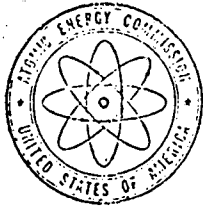
The President asked if the use of his airplane had been helpful. I said that it had been, and that it made quite an impression when we arrived in Moscow. He brought the meeting to a close by saying that he was very happy that our trip to the Soviet Union had been so successful."

Friday, May 31, 1963 - Paris - Washington

I met at the American Embassy with Dr. Ed Piret, Science Attache, and Friedman to discuss French science. I met with Colonel Durbrow, Farley, Luedecke and Wells to discuss the revision of the NATO Agreement. I met at the headquarters of the French CEA, No. 69, Rue de Varenne, with Perrin, Goldschmidt, Luedecke, Wells and Friedman to discuss Pierrelatte, plutonium for RAPSODIE, fuel for PEGASE, the seismic program and other matters. I had lunch in the Grill Room of the Hotel Crillon with Goldschmidt from 12:30 p.m. to 2 p.m. He assured me that France is not collaborating with West Germany on the gaseous diffusion process for producing enriched uranium-235, as John McCone and the CIA have reported to President Kennedy, that they may be doing. (The memorandum covering my conversation with Perrin and Goldschmidt at the French CEA and my conversation with Goldschmidt at lunch are attached to my Journal entry of June 1, 1963).

I flew out of Orly Airport with Wells, Fritsch, King, and Luedecke, about 4:15 p.m. on PAA flight 119. We arrived at New York Idlewild at 6:45 p.m. and then flew on to Washington in a MATS plane.

Copies of notes of Information Meetings 276, 277 and 278 held in my absence are attached.



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

UNCL. BY DATE
NOV 25

COPY NO. 5
May 20, 1963

INFORMATION MEETING 276

9:50 a. m., Monday, May 20, 1963 - Chairman's Conference Room, D. C. Office

1. Chairman's Visit to Moscow
2. Draft Bill to Create an Administrative Conference of the United States

Dr. Wilson noted receipt of the memorandum and requested the Commissioners' early review.

3. Pre-shot Announcement of NTS Events

Dr. Wilson said that in view of the Chairman's query, he thought and the Commissioners agreed that there should be no pre-shot announcement. (Clark)

4. Survey Report on Non-Discrimination by AEC Contractors

Dr. Wilson noted the Vice President's discussion of this matter at the conclusion of the Space Council Meeting on May 17. Mr. Hollingsworth said he had discussed with the Chairman the Vice President's request and procedures will be instituted for four or five monthly AEC on-the-spot checks and a report will be made to the Commission. (Traynor)

5. Proposed Los Alamos Rent Increases

Dr. Wilson will call Mr. Kermit Gordon, Bureau of the Budget, today.

6. Ceremonies for Tarapur Project in June

Dr. Wilson noted the Chairman had declined Ambassador Galbraith's invitation and the Commissioners suggested close coordination with the Department of State and the Joint Committee, but agreed the letter to Ambassador Galbraith could go forward. (Henderson/Ink/Wells)

✓ 7. Letter to Mr. Bundy re Enriched Uranium for West Germany

Dr. Wilson noted the Commissioners had reviewed the letter and he will sign it today. *attached w/ 5/17, and dated 5/18.*

8. AEC 1133 - NRDS Supporting Services Contractor

Scheduled for Commission consideration at 2:30 p. m. today. (Secy)

9. Proposal for U. S. Guarantees in Construction of Reactors Abroad

10. Mr. Ramey's Briefing at Livermore Laboratory Saturday, May 18

11. June 3 and 4 Joint Committee Hearings on Fallout

Mr. Ink said Dr. Dunham will coordinate the staff input. The Commissioners had no objection to the proposal to include information on 1962 test yields in the material submitted to the Joint Committee, and Mr. Hollingsworth agreed the testimony and procedure for the hearings should be discussed at an early information meeting. (Ink)

12. Appropriations Hearings June 4

Mr. Hollingsworth said the proposed testimony will be submitted to the Commissioners for review. Mr. Ramey noted the usefulness of preparation of fact books for the Commissioners in connection with their attendance at hearings. (Abbadessa)

13. Extension of B & W Contract re N. S. SAVANNAH

Mr. Hollingsworth said the joint group now proposes to extend the scope of the contract with B & W to provide caretaker services for the reactor. The Commissioners had no objection to forwarding this proposal to Mr. Alexander, Maritime Administrator, today and requested that the letter include a reference to the desirability of installation of other control rods while the reactor is down. (GM)

14. FY 65 Funds for the MCR

Mr. Hollingsworth reported that as a result of discussions with Dr. Harold Brown, DoD, and his expression of the Department's strong interest in the project, the Chairman had suggested that the budget figures not include funding for the project in 1965, but that the letter to the BoB refer to the Department of Defense's strong interest. The Commissioners had no objection to this procedure and Mr. Hollingsworth said this action will necessarily defer any notification to the Joint Committee and others. (Abbadessa)

15. Charges for Plutonium and Uranium Enriched in U-233

Mr. Hollingsworth reported on staff discussions with Mr. Fred Schuldt, BoB, on Friday and said Mr. Schuldt will discuss the proposal further with BoB staff. It appears the BoB may be willing to accept a middle range point in the \$40/45 range and the Commissioners agreed AEC should continue to negotiate with BoB on this basis.

16. Clarifying Statement to Joint Committee re NFS Costs

In response to Mr. Ramey's query, Dr. Wilson noted the Commissioners had thought it unnecessary to submit such a statement. Mr. Abbadessa will discuss the matter with Mr. Ramey. Mr. Ink added that a call from Mr. John Conway, Joint Committee staff, expressed their interest in early receipt of the Justice Department's analysis of the matter. (Abbadessa/Hennessey)

17. White House Meeting Tomorrow re Weapons Development

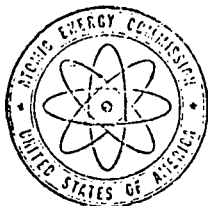
Mr. Falfrey said he understood Dr. Haworth and General Betts will attend.

PRESENT

Dr. Wilson Mr. Hollingsworth
Mr. Falfrey Mr. Hennessey
Mr. Ramey Mr. Henderson
 Mr. McCool
 Mr. Ink

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UNITED STATES
ATOMIC ENERGY COMMISSION
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27
ENCL. BY DOE
NOV 86

COPY NO. 15
May 22, 1963

INFORMATION MEETING 277

9:40 a.m., Wednesday, May 22, 1963 - Dr. Wilson's Office, Room 1103-H
D. C. Office

1. General Betts' May 21 Memo re Commissioner Haworth's Meeting to Discuss Weapon Developments (See also NSAM 245)

Dr. Wilson discussed briefly General Betts's memo of the meeting and noted that NSAM 245 is the directive memo from that meeting. The requested report is to be discussed with the Commission upon the Chairman's return. A brief courtesy response to Secretary Gilpatric's letter of April 10 is to be transmitted. (Brown/Betts)

2. Survey of PLOWSHARE Sites

Mr. Ink discussed the proposed local press releases for Idaho and Nevada for issuance prior to the preliminary site survey for the Schooner event. The White House is to be informed the AEC wishes to proceed with the surveys and asked whether the press releases should be made. (Ink)

3. Fission Yield Data for the Joint Committee Fallbut Hearings

In response to Dr. Wilson's request, Mr. Ink said staff has not been informed whether the White House approves transmittal of the data.

4. Department of Commerce White Paper re N. S. SAVANNAH

Mr. Ink said if such a paper is developed the AEC will be given an opportunity to review it.

5. Revised Criteria for FY-1964 Third Round Invitation on 600 MW Nuclear Reactor

Mr. Ramey discussed his informal conversations with the JCAE staff regarding next year's Third Round invitation. He said he had suggested to the staff the desirability of JCAE-Commission informal discussion of the preliminary authorization bill markup and Mr. Hennessey said it was his understanding that this will be done. The Commissioners requested early development of proposed amended criteria for the Third Round invitation providing for a 600 MW plant consisting of

more than one reactor, some emphasis on a factor for advanced technical information, etc. for discussion with the Commissioners and transmittal to the Joint Committee. (Hennessey/Pittman)

6. Vice President Johnson's May 1 and May 8 letters re Area Compliance Surveys

Dr. Wilson requested preparation of a letter of inquiry to the Vice President. (Traynor)

7. Senator Curtis' May 17 Letter re Hallam Reactor Use in Food Preservation Program

Dr. Wilson requested preparation of a reply to the Senator. (Pittman/Aebersold)

✓ 8. Chairman's Cable re Signing of U. S. -USSR Agreement in Moscow

9. Pravda's Article re Discovery of Element 102

10. Proposed Letter to Senator Dirksen re Access by Newsmen to AEC Public Information Representatives at Las Vegas

Dr. Wilson will sign the letter today.

11. Mr. Ramey's Discussions at Key West May 27 re Saline Water Plant

In response to Mr. Ramey's suggestion the Commissioners agreed that if an appropriate study is proposed the AEC should cooperate.

12. Extension of Allied Chemical Plant Contract

Mr. Hollingsworth reported that Allied representatives had agreed to a 90 day extension.

✓ 13. SNAP 10A Launching at Wallops Island Last Night

14. Status of N. S. SAVANNAH

Mr. Hollingsworth and staff reported on the existing lack of coordination between the AEC joint group, the Maritime Administration and the Department of Commerce as a result of Commerce's interest in the SAVANNAH. Mr. Robb said the Maritime Administration has,

in effect, not been in charge of the SAVANNAH since early May and that contract authority has shifted out of the Maritime Administration to the Department of Commerce without appreciation by Commerce officials of the nuclear nature of the project. The Commissioners agreed the Acting Chairman should call Secretary Hodges today and remind him of the existence of the Interagency Agreement and inform him the Commission recommends that the N. S. SAVANNAH be placed in a caretaker and reactivation status under an AEC contract with Babcock and Wilcox. If this course of action is unacceptable to the Department of Commerce the staff is authorized to discuss preliminarily the alternative course of action which is to issue a caretaker license to a contractor of the Department of Commerce. (Brown/Pittman/Price)

PRESENT

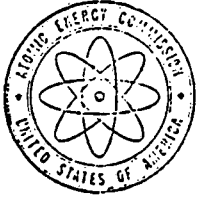
Dr. Wilson	Mr. Hollingsworth
Mr. Ramey	Mr. Brown
Mr. Palfrey	Mr. Ink
	Mr. Hennessey
	Mr. McCool
	Mr. Price*
	Dr. Beck*
	Mr. Robb*
	Dr. Pittman*

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*Attendance for Item 14 only.

W. B. McCool
Secretary



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

J. H. [unclear]
[Signature]

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NOV 86

COPY NO. 15
May 29, 1963

INFORMATION MEETING 278

10:20 a.m., Wednesday, May 29, 1963 - Chairman's Conference Room, D. C.

1. Intelligence Report on Chinese Nuclear Program
2. Draft Testimony for Appropriations Hearings Tuesday, June 4

✓ Mr. Palfrey noted that the testimony has been distributed by the Secretary's May 29 memorandum and Mr. Hollingsworth requested the Commissioners' comments for incorporation in a revision to be issued on the weekend for review at the Information Meeting on Monday, and transmittal to the Joint Committee that day. (Abbadessa/Secy)

*Weekend?
write final
Dist A/C*

3. Status of the N.S. SAVANNAH

Mr. Hollingsworth discussed briefly Secretary Hodges' May 22 directive to Mr. Alexander which clarifies the need for Maritime Administration to coordinate with top Commerce officials their discussions with respect to future operations of the ship. Mr. Alexander has reaffirmed that the joint group will continue in charge of the ship and have ready access to ranking officials. During the custody period it is proposed that an AEC-Maritime contract with Babcock & Wilcox be developed with Maritime Administration as the contracting officer, but provide for the joint group to be involved in the operation. Mr. Hollingsworth noted that Mr. Alexander prefers that the ship continue under the joint operation and not under a license at this time.

Mr. Hollingsworth noted the release of the Commerce paper on the history of the SAVANNAH at Secretary Hodges' press conference yesterday, copies of which will be circulated to the Commissioners, and Mr. Brown noted Acting Chairman Wilson's conversation with Secretary Hodges on the matter which is discussed in a note of May 23 from Mr. Brown to the Chairman.

*Dist with Secy
paper + Secy
should circulate
Friday to Com*

Mr. Ramey reiterated the importance of replacement of the control rods in the ship during the custody period. (Ink-Pittman-Secy)

✓ 4. Acting Secretary of State's May 24 Letter to the Chairman re French Atomic Installation

Mr. Palfrey noted receipt of Secretary Ball's letter and Mr. Palfrey's letter of May 27 to Mr. Bundy amplifying the Commission's position. The White House will defer consideration of this matter pending the Chairman's return and further discussion.

Acc McG

5. General Betts' May 23 Memorandum re Project RUFUS

Mr. Hollingsworth discussed briefly General Betts' concern re the status of the planning for this program.

6. BoB May 27 Memorandum Transmitting the White House's May 9 Memorandum from Mr. Meyer Feldman, Deputy Special Counsel to the President, to Secretary Orville Freeman re Barter Agreement with South Africa

Hollingsworth says Feldman is working on this

Mr. Palfrey noted the letter is in staff for recommendations. (Johnson)

7. State Department Query on Cooperative Program with the Italians re Nuclear Merchant Ships

?

Noted.

8. Stennis Committee Hearings on Test Ban

Mr. Palfrey noted that material for Dr. Haworth's testimony is in preparation for review prior to next week's hearings.

See report number

9. FRC Report on "Preliminary Estimates of Fallout From Testing Through 1962"

Mr. Ink noted the report has been approved by the NSC, the USIA and Dr. Wiesner and will be on the agenda for approval at today's FRC meeting. Copies of the summary will be circulated to the Commissioners for comment prior to the meeting. The Joint Committee is to be informed prior to release of the report by the FRC and Mr. Hollingsworth noted that the White House has approved inclusion of 1962 nuclear test yield data in the testimony for the fallout hearings next week. (Ink-Dunham-Western)

Copy of report to be made of will come back to [unclear] 582

10. Draft Testimony for Joint Committee Hearings on Radiation Fallout June 3, 4 and 5

The Commissioners have received for review copies of Dr. Forrest Western's and Dr. John H. Harley's proposed testimony, circulated by Secretary's May 29 memorandum, and Dr. Gordon Dunning's testimony will be circulated shortly. Mr. Hollingsworth suggested staff review the testimony with the Commissioners on Friday. (Dunham-Western-Ink)

Make the most of report - people were made

11. Proposed PLOWSHARE Events

Mr. Brown discussed briefly the need for a determination of the White House position on announcement of the events and suggested preparations for the Chairman's discussion of the program with the White House prior to the expiration of the 45-day moratorium (mid-June) (Ink)

no Decy Act - McGovern - program - in the past

✓ 12. Senator Anderson's May 25 Letter re Accelerator at Los Alamos

Mr. Palfrey noted the receipt of Senator Anderson's letter discussing the proposed accelerator for Los Alamos and suggested the Commission should consider broadening the base of research activity at the weapons laboratories. (English) *attached w/ reply on July 12*

also the for - Norman

13. Mr. Palfrey's Report on MLF Discussions *(attached)*

14. Tarapur Reactor Project

Mr. Hollingsworth advised the Commission may expect receipt of a letter from Senator Pastore on this project. Mr. Palfrey requested consideration of what may be said to Mr. Lyman Fink, GE, regarding the project. (GM)

15. Israeli Reactor Inspections

Mr. Hollingsworth said Mr. Kratzer will review with the Commissioners today a proposed reply to the Department of State's query. (Kratzer)

16. Acting General Manager's Report on Release of Surplus Mercury

17. University of California Medical Center Symposium - August 29-31

The Commissioners had no objections to Mr. Hollingsworth's recommendation for AEC financial support not to exceed \$18,000.

18. Local Announcements re Idaho and Nevada Surveys for Schooner Event

Mr. Ink reported White House approval of local announcements.

Memo to File

19. AEC-Department of Interior Design Study for Key West Reactor

Mr. Ramey reported briefly on his visit to Key West yesterday with Undersecretary Carr and their meetings with REA, Aqueduct Commission, and municipal representatives to discuss the proposed power and water facility. The Aqueduct Commission requested, and Messrs. Ramey and Carr agreed that Interior and the Commission should undertake a design study for completion by December. (Pittman)

*Memo to File
IC. Pab...*

20. Atomic Industrial Forum ad hoc Committee Report on Private Ownership Legislation

Mr. Hennessey discussed briefly the Committee's recommendations which propose legislation of a directive instead of a permissive nature. He noted Commissioner Wilson's May 23 memorandum to the Commissioners on this subject, and the Commissioners suggested discussion upon Dr. Wilson's return.

*Reading
to file*

21. Anti-trust Implications of the NFS Contract

The Commissioners suggested the General Counsel discuss this matter with the Commissioners subsequent to his discussion of the draft letter with Justice Department officials on Friday.

*Reading
to file*

22. Agenda for the Week of June 3

Approved. (Secy)

PRESENT

Mr. Palfrey
Mr. Ramey
Mr. Hollingsworth
Mr. Hennessey
Mr. Ink
Mr. Brown
Dr. Reichardt*
Mr. McCool

DISTRIBUTION

Commissioners
General Manager
General Counsel
Secretary

W. B. McCool
Secretary

*Attendance for Item 1 only

Saturday, June 1, 1963 - D.C.

At 10 a.m. I met with General Lyman Lemnitzer, Colonel Orwin I. Talbott, Dwight Ink, and Algie Wells to discuss NATO problems and the revised NATO agreement.

At 11 a.m. I met with Hans Lenz (German Minister for Atomic Research), Joachim Pretsch (in charge of reactor development), Dr. Sceuer (Technical Advisor to the Minister), Dr. Ordemann (Personal Assistant to the Minister), Dr. Weber (Press Attache), and Dr. Ernecke (Economic Counselor, German Embassy).

From 11:45 a.m. to 12:15 p.m. I met with Mac Bundy and Carl Kaysen (in Bundy's office). I gave them copies of five documents: Memorandum of Agreement on Cooperation for Utilization of Atomic Energy for Peaceful Uses between the U.S. Atomic Energy Commission and the State Committee of the USSR (attached); notes of conversation with Dr. Bertrand Goldschmidt in Paris on May 31, 1963 (attached); notes of conversation with Chairman Petrosyants; memorandum of conversation with Leonid Brezhnev, Chairman of the presidium of the USSR Supreme Soviet (covered in my journal entry for May 29th); and my opening statement for the press conference scheduled for June 3, 1963. Bundy said he would be sure these were placed in the President's briefcase for his weekend visit to Camp David. I explained the basis for my acquaintanceship with Goldschmidt and the reasons for my feeling that the information in the memorandum is accurate. I also told him that I had a good impression of President Brezhnev and called his attention to the greeting from Chairman Khrushchev and President Brezhnev to President Kennedy. I also described our cordial reception in the Soviet Union, citing the example of the reception which Ambassador Kohler gave for us last Tuesday evening. I described some of my impressions of the Soviet Atomic Energy program.

I wrote a letter to Jack Oswald to wish him success in his new important assignment as president of the University of Kentucky.

I worked on AEC papers, correspondence, etc., for the remainder of the day.

I received NSAM 245 requesting a report in 45 days on a high-yield nuclear weapon (copy attached).

Sunday, June 2, 1963

I worked on AEC papers all day in order to catch up with the work that piled up while I was in Russia.

Monday, June 3, 1963 - D.C.

I had breakfast in the House restaurant with Holifield to bring him up-to-date on my Russian trip. He told me that the JCAE wants to extend its authority so as to authorize the AEC operating budget, in addition to the construction budget which they now do and which amounts only to about 7% of the total. We discussed the Tarapur reactor project, the hearings on private ownership and the MCR project.

At 10:25 a.m. I presided over Information Meeting 279 (notes attached). We discussed a reply to Congressman Jensen about a contract extension for the WPPSS.

I called the Soviet Embassy and spoke to Minister Counselor Georgi Kornienko (Ambassador Dobrynin is in Moscow) to tell him about my successful Soviet visit. I told him that I held a press conference in Moscow and I will hold another one at 1 p.m. today at 1717 H Street. He asked whether their correspondents could come and I told him they were welcome. (Three individuals showed up, representing Tass, Izvestia and the Embassy.)

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NOV 86

ADDENDUM
MEMORANDUM

COOPERATION BETWEEN THE UNION OF THE SOVIET SOCIALIST
REPUBLICS AND THE UNITED STATES OF AMERICA IN THE FIELD
OF THE UTILIZATION OF ATOMIC ENERGY FOR PEACEFUL PURPOSES

Unclassified exchanges between the United States and the USSR in the field of peaceful uses of atomic energy will be implemented under the framework of the relevant provision of Section II, "Scientific Exchanges," of the 1960-61 US-USSR Exchange Agreement in the scientific, technical, educational and cultural fields.

The basic Exchange Agreement for 1960-61 provides for reciprocal unclassified exchanges of information and of visits of scientists. In addition, the parties will explore the desirability of unclassified joint projects. This Memorandum outlines areas for initial exchanges and the procedures to be followed in implementing these and future exchanges. Additional proposals may be developed from time to time between the U.S. Atomic Energy Commission and the USSR Main Administration for the Utilization of Atomic Energy, and will be subject to approval by both governments. These exchange arrangements are subject to termination on thirty days' notice by either party.

In order that the International Atomic Energy Agency and its interested members will benefit to the fullest from this effort for further development of the peaceful uses of the atom, the Agency will be given all reports and the results of the exchanges and, to the extent possible, the Agency will be asked to assist in the consideration of possible joint projects by sponsoring meetings, symposia or studies considered necessary for such planning.

Exchange of Visits

For the purpose of exchanging information on further scientific and technical development on peaceful uses of atomic energy in their respective countries, the parties agree to the following exchanges of visits of specialized personnel composed of groups of three to five persons for periods of ten to fifteen days on an agreed and reciprocal basis.

1. Delegations of scientists specializing in the field of thermonuclear research for visits primarily to the Institute of Atomic Energy of the Academy of Sciences of the USSR and the Princeton Project of the USA, but including short visits to additional facilities engaged in thermonuclear research in the USSR and the USA.

2. Delegations of scientists specializing in the field of nuclear power reactors, including breeder reactors, for visits to facilities in the USA and the USSR.

3. Delegations of scientists in the field of high energy physics, for visits to facilities in the USA and the USSR.

4. Delegations of scientists working in the field of nuclear physics, neutron physics, and the structure of the nucleus, for visits to facilities in the USA and the USSR.

The above visits, as well as additional exchanges of visits which may be developed in these and other fields of the peaceful uses of atomic energy, shall be carried out in accordance with the following procedures:

1. The specific dates and duration of visits, the specific numbers and identification of scientists and facilities involved, and the specific field of activity contemplated by each side for each of the visit exchanges, will be developed between the U.S. Atomic Energy Commission and the USSR Main Administration for Utilization of Atomic Energy and confirmed through diplomatic channels. At the same time, the respective governments will specify the permissive travel to be afforded beyond the location of the facility involved.

2. In all cases the sending country will pay the salary, subsistence, travel costs and other expenses of their own scientists and personnel both to and from their main destination and within the host country. The host country will be responsible for making suitable arrangements such as hotel accommodations and travel and to provide necessary interpreters.

Exchange of Information

The Parties agree to exchange information on a reciprocal basis through the exchange of documents, reports and abstracts. Conferences may be held as agreed.

The Parties agree to:

1. The exchange of abstracts of unclassified work in peaceful uses of atomic energy being conducted in their countries. This would include abstracts of both formal reports which are published in the technical literature as well as informal and progress reports which are normally only circulated within the atomic energy programs of their respective countries.

2. In the research reactor and power reactor field, the provision of full-size copies of such unclassified reports as are listed in the abstracts and as are requested by the other party.

3. The exchange of information on radio-isotope production and processing development, techniques of application and high intensity sources.

4. Abstracts and reports exchanged by the Parties shall also be made available to the International Atomic Energy Agency.

Joint Enterprises

The Parties agree initially to examine separately the feasibility of engaging in joint projects in various unclassified areas.

Included in the initial exploration are joint facilities and undertakings in controlled thermonuclear reactions; the design and construction of an accelerator of large and novel type; approaches to waste disposal problems; nuclear data evaluation and compilation; and the development of nuclear standards.

Representatives of the U.S. Atomic Energy Commission and the USSR Main Administration of the Utilization of Atomic Energy will meet in the first half of 1960 to consider what enterprises merit further study and will request the International Atomic Energy Agency to assist in arranging such meetings.

Instruments:

The parties agree to consider the possibility of making available new scientific instruments under agreed terms and on a reciprocal basis. Such arrangements will proceed only to the extent mutually agreed and permissible under the laws and export policies of the respective countries.

* * *

CROSS REFERENCE SHEET

Document # 901942

TITLE OF DOCUMENT (Notes) CONVERSATION WITH De BERTRAM
GOLDSCHMIDT. 6/11/63. 5 pages

This document requires further classification review and has been removed from this folder.

Jeffrey B. Sahn
Name

August 25, 1986
Date

THE WHITE HOUSE
WASHINGTON

May 21, 1963

UNCL BY DOE
1988

BSY 6/11/63

NATIONAL SECURITY ACTION MEMORANDUM NO. 245

TO: The Secretary of Defense
The Chairman, Atomic Energy Commission

SUBJECT: High Yield Nuclear Weapons

1. The President today reviewed the problem of developing a high-yield nuclear weapon on the basis of the background paper provided by the Department of Defense and the Atomic Energy Commission. He requested that the problem be re-examined, and that attention be directed also to the question of developing a high-yield warhead to be delivered by presently programmed missile systems.

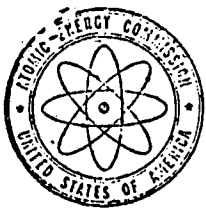
2. He requested a report on this subject in forty-five days.

McGeorge Bundy

McGeorge Bundy

Copy to:

The Secretary of State
The Director of Central Intelligence
The Director, ACDA



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

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NOV 86

COPY NO. 15
June 3, 1963

INFORMATION MEETING 279

10:25 a.m., Monday, June 3, 1963 - Chairman's Conference Room, D. C. Office

1. Chairman's Breakfast Meeting with Congressman Holifield

The Chairman discussed briefly his meeting with Vice Chairman Holifield this morning and said the following were among the matters discussed: (a) hearings on private ownership, (b) Tarapur reactor project, and (c) the MCR project. With respect to the latter, Mr. Holifield indicated the Committee will probably not authorize the project for FY 64 and indicated an interest in the AEC meeting, the DoD requirement through an expanded ML-1 or other concepts. Mr. Ramey said in the meeting with the Committee last week, the Commissioners had stated that if the DoD specifications could be changed the Commission would undertake a study to determine whether the ML-1 or SNAP 4 concepts could meet the requirement. The Chairman confirmed from Mr. Hollingsworth that the Commission is now reviewing this possibility, and Mr. Hollingsworth suggested the need for an early response from DoD as to whether the specifications can be changed. (Brown-Pittman)

2. Commissioner Haworth's Testimony for the Stennis Committee
(see Mr. Palfrey's Memorandum of May 31, with Attachments)

Mr. Palfrey noted the Committee hearing will probably be Thursday or next Tuesday, thus providing sufficient time for review of the proposed testimony.

3. Chairman's Press Conference, one p.m. Today on U. S. S. R. Visit

4. Proposed Amendment of Section 261 of the Atomic Energy Act

The Commissioners discussed the proposed extension of Joint Committee purview of AEC funds by amendment of Section 261 to provide for Joint Committee authorization of operating funds as well as construction funds. The General Manager noted that while he thought the matter had already been decided by the Joint Committee, the Commission should go on record at this afternoon's meeting as not favoring the proposed legislation. He recommended, and the Commissioners agreed, an appropriate fallback position would be to suggest legislation no more restrictive than the existing legislation for the National Aeronautics and Space Administration, i. e.,

authorization of total operating funds and total construction funds with minimum program or project breakdown. The Chairman telephoned Kermit Gordon, BoB, during the meeting to inform him of the proposed legislation and to obtain BoB reaction. Mr. Gordon will return the Chairman's call prior to the four p. m. Joint Committee meeting. (Brown-Abbadessa)

5. Secretary McNamara's May 30 Letter re Procurement of Equipment and Waiver of Certification

Mr. Falfrey said Mr. Harold Brown had telephoned him regarding the urgency of this matter and the General Manager reported it is in staff. (Betts)

✓ 6. Letter to Representative Jensen re Contract Exception for the WPPSS

The Chairman said he will sign the letter today and requested information today for a letter reply to Mr. Jensen's later question regarding waivers granted in other contract cases. (Vinciguerra-GC)

7. Report on Chairman's Visit to the U. S. S. R.

The Chairman noted the statement he will use at the press conference today. A comprehensive report is in preparation and will be available next week.

8. General Manager's Report on Roller Coaster Event at NTS Friday, May 31

9. Vice President's Presentation of Safety Award to the AEC, 10 a. m., Tuesday, Treaty Room, Executive Office Building

The Chairman said he would accept the presentation if the Appropriations hearings convene in the afternoon. If the hearings convene at 10 a. m., Commissioner Ramey will accept the award for the Commission.

10. Special NORAD Briefing and Visit to McGuire Air Force Base, New Jersey, June 24

The Commissioners suggested the trip be arranged for June 25, if possible, with the briefing to be scheduled prior to the visit. (Betts-Secy)

PRESENT

Dr. Seaborg General Luedcke
Dr. Wilson Mr. Hollingsworth
Mr. Falfrey Mr. Brown
Mr. Ramey Mr. Hennessey
 Mr. Abbadessa*
 Mr. McCool

DISTRIBUTION

Commissioners
General Manager
General Counsel
Secretary

W. B. McCool
Secretary

*Attendance for Item 4 only.

At 11 a.m. I called Kermit Gordon and told him I would be briefing the JCAE on my Russian trip at 4 p.m. today and there was a possibility that they might bring up the matter of their wish to review the whole AEC budget. They feel their influence isn't great enough by reviewing the construction portion, which amounts to about 7% of the total budget. Gordon said he will look into this and call me back.

From 1 p.m. to 2:30 p.m. I held a press conference which was very well attended. I began with a prepared statement which was followed by many questions. I emphasized the high degree of cooperation and cordiality of the Soviets during our visit and my hope for an enhanced future of good relations in the field of peaceful uses of atomic energy. Following the press conference I appeared (simultaneously) before NBC, CBS, and ABC TV cameras to answer questions.

Gordon called back at 2:45 p.m. and said he had a chance to discuss this matter only briefly with his staff. Without having delved deeply into this, he feels that it obviously involves substantial dangers from the standpoint of the Administration's interests. It was his suggestion that, if it is at all possible, I avoid saying anything which indicates sympathy or concurrence with this idea. If I should be pressed, he suggested that I ask for time to consider this and to come up with a statement that would reflect the Administration's thinking. He added that the JCAE is already one of the best informed and most frequently consulted committees on the Hill. This additional power would put the relationship between the Executive Branch and the Congress completely out of proportion.

From 4 p.m. to 5:30 p.m., in an executive session with the JCAE, I described my trip to Russia. This was followed by a discussion of the authorization issue; I said that AEC did not favor this increased JCAE authority.

Tuesday, June 4, 1963 - D.C.

I called Secretary Udall at 9:20 a.m. and we discussed my recent trip to the USSR. I told him I didn't get to see Novikov as he hoped I would. I told him I had seen Brezhnev and thought he was a capable man and appeared to be more Western in his outlook than some of the others.

He said that he and some of his people would like to see me on the secret project in Alaska which is a matter of some urgency. They have strong views on locations and they would like to discuss this with us before the matter crystallizes. The meeting would last about 20 or 30 minutes, and they are prepared to come to my office. I suggested 2:30 p.m. on Thursday, June 6th, which is all right with him.

We discussed the Bodega Head matter and I said that under our agreement I thought we should check with each other before statements are made. He agreed and regretted the manner in which the matter was handled and said he will take steps so that the same thing would not happen in the future.

Udall said when the Russian scientists return my visit, he would be happy to show them some things in his department if I wished to work it into the schedule. I thanked him and said we will let him know.

At 10 a.m. I testified before the House Appropriations Committee on the AEC FY 1964 budget. I also described my Russian trip to the Committee.

I had lunch at the Roger Smith Hotel with Al Luedecke and Chris Henderson.

The staff learned from Atomic Energy Minister Hans Lenz that Germany is not **593** cooperating with France on a gaseous diffusion plant. I passed this information on to the President via Bundy in a letter.

I also wrote Thomas D. Fontaine of the National Science Foundation to answer his request for a report on Donald S. Burnett's fellowship activities. Burnett is approaching completion of his graduate program at Berkeley and is already an excellent scientist.

Wednesday, June 5, 1963 - D.C. - Chicago - D.C.

Accompanied by Chris Henderson I flew to Chicago on United Flight 201, leaving at 9:15 a.m. and arriving at 11 a.m.

I attended a luncheon at Mundelein College with old Chicago friends--Mrs. John Lewellen, Mr. and Mrs. Wally Eggen, Mrs. Foster York, Mr. and Mrs. Mulligan (Margaret Smith), Mr. and Mrs. Royal Smith and Ward Quaal (from Ishpeming).

Following the conferring of degrees by His Eminence, Albert Cardinal Meyer (Archbishop of Chicago and Chancellor, Mundelein College) I gave the Mundelein Commencement address, "Science and the Individual in a Changing World." An honorary Doctor of Science degree was conferred upon me by Sister Mary Ann Ida (President, Mundelein College).

After attending a reception we flew back to Washington on United flight 210, leaving at 6:40 p.m. and arriving at 10 p.m.

Thursday, June 6, 1963 - D.C.

Removed pending review by other agencies

At 10:15 a.m. I presided over Information Meeting 280 (notes attached).

Jerry Johnson called at 11:15 a.m. and said that McNamara talked to him and Gilpatric about the plutonium question. They have reached conclusions and Jerry was asked to see me and talk to me privately about the whole matter and see how to proceed. He emphasized that this should be a confidential meeting only between the two of us. We set the time for tomorrow morning in my office. Johnson said tomorrow he will give me a paper indicating what McNamara and Gilpatric are willing to sign off for through 1972 in terms of specific systems by type and number. The philosophical aspects of the tactical study also are included. Also, there will be a proposed framework for a joint memorandum from McNamara and me to the President. He said that DOD has been asked for a joint AEC/MLC briefing on the tactical study. Gilpatric wants to be sure that we know that neither he nor McNamara have signed off on the report, except for the 1965 stockpile production, and that they have serious difficulties with the philosophical approaches to the problem.

At 11:30 a.m. I presided over Commission Meeting 1939 (action summary attached) **594**.

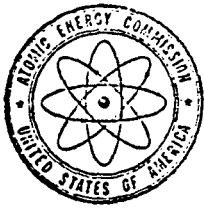
Commencement Exercises at Mundelein College, Chicago, IL, June 5, 1963



L to R: Mrs. Foster York, Mrs. John Lewellen, Seaborg, Walter Eggen, Ward L. Quaal (WGN-TV), Mrs. Walter Eggen, Sister Mary Ann Ida



L to R: Royal Smith, Seaborg, Mrs. Edward Mulligan, Mrs. Royal Smith, Edward Mulligan



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

Handwritten initials and numbers: "JW", "F", "30024", and "6102".

UNCL BY DOE
1988
COPY NO. 15
June 6, 1963

INFORMATION MEETING 280

10:15 a.m., Thursday, June 6, 1963 - Chairman's Conference Room, D. C.
Office

1. NSAM 245 Presidential Request for Report on Weapons Development

In response to the Chairman's request, the General Manager said the Laboratory reports are due June 19 and that the recommended report will be reviewed with the Commission in ample time for the reporting date of July 3. The Chairman invited the Commissioners' attention to General Betts May 29 memo re ballistic shapes. (Betts)

2. Meeting of Principals Monday, June 10

The Chairman said the meeting has been scheduled to discuss the PLOVSHARE provisions of a Test Ban Treaty. The General Manager reported a proposed reply to Dr. Frank Long is now in hand and the Chairman said he would review the letter tonight. (Brown)

3. Attendance at Appropriations Hearings at 1:30 Today

Dr. Haworth will attend and the Chairman may attend if desirable.

4. Joint Committee Fallout Hearings

Mr. Ink reported briefly on the progress of the Hearings and said AEC staff has made a commitment to provide a study on the Iodine problem shortly. (Dunham)

5. Federal Radiation Council Staff

Dr. Haworth commented briefly on the DOD position re additional staff for the Executive Secretary.

6. Stennis Committee Hearings on Test Ban

Mr. Palfrey said the Hearings may be next Tuesday or the next Tuesday, draft testimony is in review and Dr. Haworth and Gen. Betts will testify.

7. French Atomic Energy Facility

8. Joint Committee Hearings on Private Ownership

The Chairman said Mr. Holifield had expressed to him the hope that the Hearings could be held in late June.

9. Commissioners June 3 Meeting with the Joint Committee

The Chairman said the Commissioners had discussed with the Joint Committee and staff the trip to the USSR, the MCR, the modified Third Round, authorization for unsolicited reactor project proposals, etc. He noted Senator Pastore's continued concern re the Tarapur reactor project and Mr. Wells June 3 memo on the subject and said he would discuss the problem with Senator Pastore upon the Senator's return to Washington. White House staff is also to be informed of the status of the project. (Brown/Wells)

10. Tactical Weapons Study and 1965 Stockpile

The Chairman noted receipt of the study and the General Manager reported the matter is in staff for preparation of recommendations for the Commission. (Betts)

11. Ceremony at the Pacific Gas & Electric Co. Peach Bottom Reactor July 9

The Chairman noted the Commissioners have been invited to attend. (Brown/Secy)

12. Announcement of Layoffs at Nevada Test Site

In response to the Chairman's query, the General Manager reported on the personnel cuts and the Chairman suggested caution in handling any reduction of monitors.

13. Chairman's Invitation to Visit U.K. Installations September 19

The Chairman noted Sir Roger Makins' invitation for him to visit U.K. atomic energy installations on his way to Vienna and said he would plan to do so. (Brown/Wells)

14. June 3 Letter From Lyman Bliss, President of Union Carbide Nuclear Corporation

The Chairman invited the Commissioners' attention to Mr. Bliss' letter.

23. Secretary of Defense's Request for Waiver of Certification on Missile Use (See May 30 letter from Secretary McNamara)

In response to Dr. Wilson's inquiry, the General Manager reported the proposed reply will be circulated today.

24. Esso Research Laboratory Proposal for Chemical Production of Ozone

In response to Dr. Wilson's request, the General Manager said Reactor Development and Research will review the proposal. (Pittman/
McDaniel)

25. Chairman Bonner (Marine and Fisheries Commission) Probe of N. S. SAVANNAH

Mr. Ink reported Mr. Bonner proposes to probe the SAVANNAH in depth and the Joint Committee staff has been alerted.

PRESENT

Dr. Seaborg	General Luedecke
Dr. Wilson	Mr. Ink
Dr. Haworth*	Mr. Brown
Mr. Palfrey	Mr. Hennessey
Mr. Ramey	Mr. McCool

DISTRIBUTION

Commissioners
General Manager
General Counsel
Secretary

*Partial Attendance

W. B. McCool
Secretary

UNITED STATES GOVERNMENT

Memorandum

DECL. BY DOE
NOV 66

TO A. R. Luedcke, General Manager

DATE June 6, 1963

Approved *A. R. Luedcke*

FROM W. B. McCool, Secretary *[Signature]*

A. R. Luedcke

Date 6/7/63

ACTION SUMMARY OF MEETING 1939, THURSDAY, JUNE 6, 1963, 11:30 A.M.,
SUBJECT ROOM 1113-B, D. C. OFFICE

SECY:JCH

Commission Business

1. Minutes of Meetings 1917, 1918, 1923, and 1924

Minutes of Meetings 1917, 1918, and 1923, approved as revised, subject to comments by Commissioners Haworth and Ramey. Minutes of Meeting 1924, approved as revised, subject to comments by Commissioners Haworth, Palfrey and Ramey.

2. AEC 997/80 - United States, Japan, IAEA Trilateral Agreement

Approved. (Wells)

3. AEC 1042/19 - PDKP - Proposed Cooperative Arrangement With Southern California Edison Co., San Diego Gas & Electric Co., and Westinghouse Electric Corporation

Approved. (Vinciguerra)

cc:
Commissioners

At noon I met with the French Minister of Science, Gaston Palewski. I then hosted a luncheon at the Mayflower Hotel for him. Others attending were Pierre Palen, Francois de Laage, Commissioner Wilson, Commissioner Ramey, Algie Wells, Howard Brown, Frank Pittman, William Tyler (State Department), Professor James Hart (Berkeley, who happened to be in town), H. Johnson, Ed Welsh, John Conway and Ed Bauser. Both Palewski and I spoke briefly.

At 2:45 p.m. I met with Bob Le Baron and Harvey White to discuss the Lawrence Hall of Science.

The Commissioners were briefed on NORAD and CONAD by Brigadier General T. J. McGhee in the presence of Brigadier General Lucius B. Clay, Jr., Colonel Pease, Colonel Strong, Colonel Schwiller, Lieutenant Colonel Bowen, and others.

Senator Pastore called at 2:10 p.m. to say he isn't too happy about the Tarapur project. He feels that we are just giving India this reactor as a gift and the idea of our being Santa Claus is too much. I said we aren't giving it to them and, if we don't go along with them, they will buy it some place else. He feels this is a big responsibility and asked on what level it has been discussed. I told him it has been handled at the highest level in State, and that Ambassador Galbraith is also involved. I said I am sold on it because of the degree of safeguards we have in the agreement. There is also the aspect that this will be a counter check to the impact of an announcement from the Red Chinese when they test their atomic weapons in that the Indians can tell their people that they are making progress in the atomic energy field. Pastore said that Galbraith seems to put great weight on this aspect also. Pastore asked that I call Ambassador Galbraith and tell him that he (Pastore) would like to talk with him on the telephone and will be glad to see him after Wednesday, when he returns to the city. Pastore and I will try to get together the latter part of next week to discuss this along with certain aspects of my visit to Russia.

At 4 p.m. the Commission met with Secretary Udall, Assistant Secretary John Kelley and Assistant Secretary John Carver of the Interior Department regarding the proposed 1 MT effects shot in Alaska. They favor the Aleutian Island area.

I was interviewed by Dick Smith for Business Week.

President Kennedy today approved AEC's supplying high enrichment uranium-235 for the West German gas-cooled reactor which was requested last month. (Letter dated June 5th attached with request on May 17th).

We expect trouble from the Appropriations Committee on our research budget. Hearings on this were concluded today.

Helen and I attended a garden party celebrating Queen Elizabeth's birthday at the British Embassy.

Friday, June 7, 1963 - D.C.

At 10:30 a.m. I called Ambassador Galbraith, who said he has talked with Senator Pastore on the telephone regarding the Tarapur project. Among other things, he was careful to tell him there is face saving language in the agreement, but it did put the IAEA into the picture. He gave Pastore a short outline of the background of the situation. Pastore told him he didn't want to be troublesome on this. If we are insisting on international inspection, we need to press with the Indians as well as the Russians. Pastore asked that we (AEC) provide him with a copy of the agreement. I told the Ambassador that Mr. Wells had taken a copy of the agreement to the Joint Committee yesterday afternoon and had gone over it with members of the

staff, who were rather antagonistic. However, I said I thought perhaps they were trying to reflect what they thought the thinking of the Senator would be. I said I planned to see Pastore when he returns next week and go over the agreement with him.

I said there are two things I think we should be sure of: 1. that someone pretty high in the State Department be briefed on this in the event Pastore wishes to talk directly with them, and 2. that the President knows what our position is since Pastore mentioned that he will speak to the President about this the next time he sees him. Galbraith will speak to Bundy about informing the President and will tell Bundy that I will be available to talk with him (Bundy) about this also. Galbraith said he has received my note (copy attached along with a copy of his letter).

Since funds are available, they are going to try to get this project through by July 1st and wish to give it all possible prestige. He asked if I think Dr. Smyth will be coming over when it is announced. I said, in all probability, a Commissioner will be there and he was delighted. He said that Justice Goldberg will be visiting him at the time, and to have him say a few words as well as having a Commissioner in attendance will give the prestige he wants. When he returns to New Delhi at the end of the week, he said he will let us know the date definitely for the formal signing of the agreement

I called John Conway at 11:35 a.m. and told him I have talked with Pastore and that I have also talked with Ambassador Galbraith about the Tarapur project. I mentioned that Galbraith pointed out that the particular language in the agreement had some facesaving aspects and that Bhabha had to come a long way on this. The language and the intention is definitely that the IAEA will be in on the inspection. Conway said he is afraid that there are other JCAE members who might feel even more strongly about this matter than Senator Pastore, and this could be embarrassing. He did say that he will do everything possible to get this straightened out; he doesn't think anyone has anything to gain if this becomes a political football.

Dr. Bhabha called at 3 p.m. from Seattle to try to get me to agree to have the IAEA Board of Directors postpone action at their June meeting in Vienna to adopt safeguards for reactors above 100 MW. I refused and said his insistence could jeopardize the Tarapur agreement because Pastore and other JCAE members believe the U.S. should have insisted on even stronger assurance of India's agreement to IAEA safeguards.

A little after 3 p.m. Jerry Johnson brought over McNamara's and Gilpatric's decisions on plutonium production through 1972. Commissioners, Luedecke, Baranowski, Brown and Betts were present. McNamara has not discussed this with the Joint Chiefs of Staff. A large cut in production, corresponding to less than half our capability, is proposed. This will, of course, lead to very great difficulties at production sites and possibly in Congress. The plan would be that McNamara and I would send a letter to the President with recommendations, but possibly the letter should be from McNamara alone. This would be followed by a letter from me to the President describing an actual production program and reactor shutdown schedule. Ramey wants to slow this procedure and discuss the weapons program in detail with McNamara; this is obviously basically a DOD decision, and AEC shouldn't be involved too much in determining actual weapons levels.

I responded affirmatively to McNamara's letter in which he requested interim approval from AEC for DOD use of NIKE-ZEUS warheads to give a capability to shoot down a Soviet nuclear weapon in orbit, despite the fact that the warhead is not ready for AEC certification.

May 18, 1963

Dear Mr. Ambassador:

I have your letter of May 10, containing your very kind invitation to join you in the ceremony launching the Tarapur Project. I hope that you will forgive this hurried note, but I did want to respond to your invitation, which I received only this morning before my departure for the Soviet Union this evening. I am flying to Moscow this evening with a small group of my scientific colleagues to visit Soviet laboratories and to represent the United States in the signing of a new agreement on scientific exchanges in the peaceful uses of atomic energy.

I regret very much that my schedule in June and July will not permit me to accept your thoughtful invitation. We shall investigate your alternate invitation that Dr. Smyth might attend the ceremony and would hope to have an answer for you when you arrive in the United States later this month.

Cordially,

Glenn T. Seaborg

Honorable John Kenneth Galbraith
 American Ambassador
 New Delhi, India

HCB:ms;mc

Information Meeting Item

SECRET
6/7/63

New Delhi, India,
May 10, 1963.

238 5/18/63

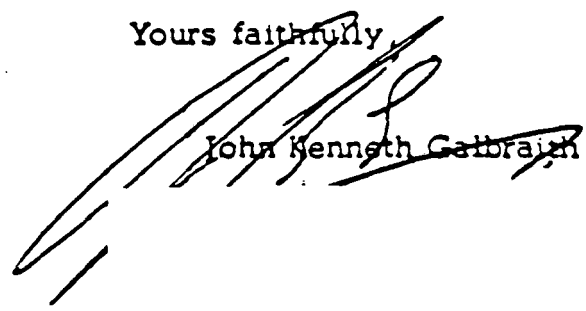
Dear Mr. Chairman:

I hope very much to have some considerable ceremony here when we launch the Tarapur Project. I have never been in favor of doing these things in secret and this project is largely designed to support Indian prestige vis-a-vis China. Hence, some more than usual attention should be called to the matter. I need only note the billing it would receive were the Soviets doing it.

Accordingly, I wonder if there is a chance of your coming even) *No*
briefly to India between mid-June and mid-July. As an alternative, *Jewett*
to which I hope you will not turn too readily, could we perhaps per-
suade Smyth to come? Is there any official role in which we could) *No*
get Oppenheimer? Since the Prime Minister is head of the Atomic
Energy Commission, all this would ensure the whole thing having
the very highest level attention.

I am writing at this time to direct your thoughts to the possibility.
Would you let me have your reaction? I shall be back in the United
States toward the end of the month and for the first fortnight of June.
I would like very much to have this announcement as my wind-up
operation here in India sometime prior to my departure July 10.

Yours faithfully,



John Kenneth Galbraith

The Honorable
Glenn T. Seaborg,
Chairman, Atomic Energy Commission
Washington 25, D.C.

Helen and I attended a buffet dinner, followed by a Friday evening parade at the Marine Barracks, 8th and Eye Streets, a magnificent spectacle. Justice Tom Clark was the reviewer.

Saturday, June 8, 1963 - D.C.

At 10:20 a.m. I called Carl Kaysen to tell him that I have heard that plans are afoot to have a meeting of the Principals directly with the President, instead of another meeting among ourselves, to discuss the Plowshare problem. I said I wonder whether this is a good idea. We have more ideas, but we don't want to be in the position of presenting them to the group for the first time in a meeting with the President. Kaysen said it is very unlikely that a meeting could be held on Wednesday, June 12th. They are now thinking in terms of a week from Monday (June 17th). He suggested that instead of a preliminary meeting, we circulate a paper to the Principals the early part of the week and discuss our points with them on the phone, including a talk with Bill Foster.

I said that we have thought we could even do away with the instrumentation. The aim is not to develop weapons, so that the aim of Plowshare could be accomplished without any instrumentation at all. Also, there would be no way of withholding the collection of the debris. We would be willing to make the debris available, which is one step closer to revealing the device. Our people still feel that using obsolete revealable weapons almost eliminates doing anything useful. Also, I said that this will be a very hard thing to get through Congress, whatever weapon we are revealing.

I worked until about 3 p.m. at the office and then at home on AEC papers. I had lunch at the Roger Smith Hotel with Jim Ramey.

Sunday, June 9, 1963

Accompanied by Vic Schmidt, I flew to Hartford, Connecticut, to participate in the Trinity College commencement. We left Baltimore on Eastern flight 20 at 8 a.m. and arrived in Newark at 8:50 a.m., where, at 10:10 a.m., we took United flight 663 to Hartford arriving at 10:50 a.m. We were met by Dr. Robert Vogel (Dean of the Graduate School) who drove us to Trinity College.

I had lunch at President Albert Jacob's residence on campus with the trustees, faculty, alumni, etc.

I delivered the commencement address, "Problems - Challenges - Accomplishment: A Progression," in the Field House (because they mistakenly thought it would rain). Dr. Arthur H. Hughes, Dean and Vice President, served as my escort. I received an honorary Doctor of Science degree from President Jacobs. The other recipients of honorary degrees were Robert B. Appleyard (Divinity), Harry H. Clark (Literature), Milton H. Glover (Law), Sidney W. Goldsmith, Jr. (Humanities), Reginald H. Gooden (Divinity), James L. Goodwin (Law), James R. Kerr (Science) and Edwin N. Nilson (Science).

We returned to Washington on Eastern flight 651, leaving at 5 p.m. and arriving at 6:20 p.m.



Honorary Degree Recipients
at Trinity College, Hartford, CT
June 9, 1963

L to R (Standing): Edwin Normal Nilson, Milton Hugo Glover, Harry Hayden Clark,
the Reverend Sidney Wilmot Goldsmith, Jr., the Reverend Robert
Bracewell Appleyard and James R. Kerr

L to R (Seated): Seaborg, Albert Charles Jacobs, and the Right Reverend Herbert
Gooden

Monday, June 10, 1963- D. C.

Lyman Fink (G.E.) called at 9:35 a.m. about the Tarapur project. He has heard that we're having problems with Bhabha and that we may be building up to an impasse. I discussed the problem with him and told him of my conversation of a day or so ago with Bhabha. Fink said that much of Bhabha's concern has to do with implementation of some of the agreement's details; regarding inspection of hardware, i.e., he is afraid that when it comes time for an inspection, say ten years from now, the composition of the IAEA officials will have changed, and there may be a different interpretation put on the matter. I agreed that Bhabha may have a legitimate concern, but it should be handled legitimately, rather than just pursuing delaying tactics.

At 9:45 a.m. I presided over Information Meeting 281 (notes attached).

At 11:30 a.m. the Commission met with members of the Historical Advisory Committee (J. P. Baxter, J. L. Cate, R. W. Hidy, G. E. Mowry, D. K. Price, R. R. Wilson and authors Hewlett and Duncan) to discuss Volume II of the AEC history which will cover the years 1946-1952 and will be due for completion in 1966.

At 2:45 p.m. I met with Connie Boucher and James Young of Determined Productions, Inc., the publisher of Happiness is a Warm Puppy to discuss the possibility of writing a book on science for children.

At 3:30 p.m. the Commission met with A. J. Wagner (Chairman), A. R. Jones (Director), F. E. Smith (Director), L. J. Van Mol (General Manager), G. O. Wessenauer (Manager Power), G. P. Palo (Chief Engineer) and W. E. Dean (Chairman, Research Staff Office for Power) of TVA to discuss their interest in nuclear power. There will not be much interest for some years because their energy cost is 18 - 19¢ per million BTU down to 13¢.

We are going to send instructions to the Field Office to insist on more employment of Negroes.

President Kennedy gave the commencement address (attached) at American University today. He announced: 1. a forthcoming high level meeting on the test ban in Moscow and 2. that the U.S. will not be the first to resume atmospheric testing. This appears to be the start of a real move towards a nuclear test ban.

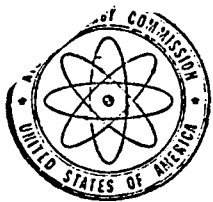
Tuesday, June 11, 1963 - D.C.

At 10 a.m. I met with Lou Roddis (President, AIF). He inquired about his request that some Russians attend the annual AIF meeting in New York the week of November 18th and I told him about my discussion with Petrosyants on this, namely, that the Petrosyants reciprocal visit might encompass this meeting. He explored with me the Forum's desire to study the feasibility of a private enterprise operation of the gaseous diffusion plants to produce U-235 for nuclear reactor fuel. The utilities want the government to get out of the nuclear power business eventually.

I sent my biweekly report to the President (copy attached) in which I explained the status of the Indian Tarapur project safeguards.

The Commission made its suggestions on DOD's letter to the President setting plutonium needs for weapons through 1972. This will result in a huge cut in plutonium production which will be detailed in a follow-up letter to the President from the AEC.

I wrote to Gilpatric (copy attached) pointing out that again DOD is not following



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

UNCL. BY DOE
NOV 86

COPY NO. 15
June 10, 1963

INFORMATION MEETING 281

9:45 a. m., Monday, June 10, 1963 - Chairman's Conference Room, D. C. Office

1. D. C. Office Space

In response to the Chairman's query, Mr. Hollingsworth said recent recommendations from the Secretary are in review for early Commission consideration.

2. Tarapur Reactor Project (Safeguards)

The Chairman discussed briefly his conversations with Mr. Bhabha and Ambassador Galbraith last week. The Chairman, Commissioner Ramey and Mr. Wells will discuss the problem with Senator Pastore on Wednesday. The Chairman said Mr. Ramey will probably represent the Commission at any ceremony in connection with the project. (Wells)

3. Radiation Incident at NTS

The Chairman requested a further report and suggested the desirability of re-evaluation of post event procedures. The Commissioners noted the importance of reporting such incidents to the Commission immediately. (Betts-Clark)

4. President's Statement This Morning re Moratorium for Atmospheric Testing

5. Architect-Engineer Contract at NRTS (See Mr. Vinciguerra's Memorandum of May 28)

The Commissioners agreed that in light of Mr. Hollingsworth's comments re the status of the contract, staff should proceed subject to discussions with Mr. Ramey. (Vinciguerra)

6. Subcabinet Meeting on Civil Rights (See Mr. Ferguson's May 27 Memorandum)

The Chairman emphasized the need for early action and the General Manager reported preparation of a memorandum to field managers on implementation which will establish target employment figures. (Traynor)

7. Barter Arrangement with South Africa (See May 9 Memorandum from the White House)

The Chairman noted that the Department of Agriculture is apparently moving to an early decision and suggested the Commissioners review the matter in that light.

8. AEC 794/9 - Weapons Development

The Chairman noted the conclusions of the report.

9. Commissioners Visit to McGuire Air Force Base June 25

10. June 10 NEWSWEEK Report re Weapons Development

The Chairman noted the brief report in Periscope and requested a review for security violation. (Marshall)

11. Confirmation Hearings of the Chairman and Dr. Tape, 10 a.m., Thursday, June 13

12. Report on U. S. S. R. Trip

The Chairman said the U. S. team will meet on Thursday and probably Friday to prepare the report. Mr. Ramey suggested the desirability of preparation of a separate annex regarding the U. S. S. R. announcement in 1956.

13. Construction at Johnston Island

The Commissioners had no objection to Mr. Hollingsworth's recommendation for construction of two barracks by Holmes and Narver. (Vinciguerra)

14. Wisconsin Congressional Delegation Interest in the MURA Accelerator
(See May 24 letter to the Chairman from the Delegation)

Noted.

15. Announcements on Proposed PLOWSHARE Device Tests

The Chairman said the Commissioners should review the proposed announcements. (Clark-Kelly)

16. Chairman's Discussion with Congressman Evans and Others re AEC
FY 64 Appropriations Bill

In response to the Chairman's query as to the desirability of discussions with Mr. Evans and others, Mr. Hollingsworth said the staff will review this matter.

17. Implementation of U. S. -U. S. S. R. Exchange Agreement

The Chairman requested preparation of plans to implement the agreement for consideration by the Commission well in advance of the proposed U. S. S. R. visit to the United States. (Wells)

18. Mr. Ramey's Interview with NUCLEONICS Staff

Mr. Ramey noted NUCLEONICS' request to interview him tomorrow regarding the matter of assistance to industry and said he is circulating today his proposed remarks.

19. Discussions with the Joint Committee re MLF

Mr. Palfrey reported that he and Mr. Ramey will meet with the Joint Committee on Thursday, June 13, to discuss the status of this matter.

20. Executive Personnel Matter

The Commissioners agreed that the commitment made in Dr. Haworth's telephone conversation should be confirmed by a letter from the Chairman. (Henderson)

21. AEC Discussions with Department of Justice re NFS Contract

Mr. Hennessey reported that Justice officials had not questioned the position that competition is impractical during the period of the five-year contract. The Commissioners agreed that Mr. Hennessey could respond to a question by advising Justice that the Commission's offer of a base load for a second plant would remain open during the period after the expiration of the five-year contract with NFS. (Vinciguerra-GC)

PRESENT

Dr. Seaborg	Mr. Hollingsworth
Dr. Wilson	Mr. Hennessey
Dr. Haworth	Mr. Henderson
Mr. Palfrey	Mr. McCool
Mr. Ramey	

DISTRIBUTION

Commissioners
General Manager
General Counsel
Secretary

W. B. McCool
Secretary

DC FILE

June 11, 1963

UNCL. BY DOE
NOV 88

PERSONAL AND CONFIDENTIAL

Dear Mr. President:

I have the pleasure of submitting to you the regular bi-weekly report on significant developments in the atomic energy program:

1. Concern by JCAE on Proposed U.S.-India Safeguards Arrangements (Unclassified)

In my bi-weekly report of May 14, I mentioned that we were nearing the completion of negotiations between the United States and India on the establishment of appropriate safeguards for nuclear materials. This agreement is of particular importance in view of the proposed Tarapur Atomic Power Station (two, 190 megawatt power reactors).

While the Joint Committee has been kept currently informed of the negotiations between the United States and India, Senator Pastore told me recently of his increasing concern relative to the proposed safeguards arrangements and his desire to meet with you on this and other matters in the near future. I hope to meet with Senator Pastore soon - in an effort to resolve the several points he has raised - as well as with Mr. Homi Bhabha, Chairman of the Indian Atomic Energy Commission, on June 18. Although we are keeping Mr. Bundy's office currently informed, the following summary is submitted for your information:

The proposed arrangement, accepted by the Indian Government after referral to Prime Minister Nehru, provides that the Indian Government agrees in principle that Agency safeguards will apply to the project after the Agency has developed a system of safeguards for large reactors generally consistent with the bilateral safeguard provisions specified in the proposed bilateral agreement and which would prevail initially. Senator Pastore believes that the Indians should agree unconditionally to the acceptance of Agency safeguards when these are developed.

Subsidiary to this question, Senator Zetser is concerned over a difference of interpretation between the United States and India as to the precise role the Agency would have in implementing the safeguard arrangements. The United States had advised India that we believe the Agency should have the primary responsibility in administering the safeguards, while India believes that the Agency role may be somewhat less comprehensive than this, with the United States retaining some degree of participation even after the Agency has begun to administer the safeguards. The Committee is also concerned that the Indians may not cooperate, and in fact, may actively oppose the development of a system of safeguards by the IAEA, the adoption of which is a precondition to the Agency's being requested to take over administration of the safeguards under the bilateral agreement.

The U.S. position on these questions, developed and presented to the Indian Government by the Department of State with the assistance of the Commission, is briefly as follows:

From the beginning of the negotiations, the U.S. has sought only "agreement in principle" to Agency safeguards from the Indians. Not only did we believe that it was unreasonable to request other governments to bind themselves to the acceptance of an Agency system which has not yet been defined, but we have been concerned that the United States should not be bound to an Agency system which may prove to be inadequate. The agreement as now drafted, while it employs the term "agreement in principle", in fact unconditionally requires that the Agency be invited to enter into an arrangement for the application of safeguards if the Agency system is generally consistent with the bilateral system. The difference in interpretation as to the role of the Agency when it begins to administer safeguards is a comparatively narrow one since the Indians acknowledged that the Agency should have a responsible role. While we prefer the position that the Agency should have the prime responsibility and that the U.S. should not continue to participate in safeguards once the Agency has taken over, we did not rule out some degree of continuing U.S. participation if the Agency has no objection.

The United States has advised India of our concern over obstructionism on their part in the development of an Agency system which would be generally consistent with the bilateral system and at the same time we have considered it inappropriate to request

the Indians to abandon positions they have long held on safeguards in exchange for U.S. assistance on Tarapur to the extent that those positions are not inconsistent with the implied obligation on their part not to prevent the adoption of an Agency system generally consistent with the bilateral system.

We are inclined to believe that the Joint Committee's attitude on the Tarapur-safeguards problem, while undoubtedly representative of their belief in the importance of Agency safeguards, which we share, results equally from a feeling that the Indians should accept our terms on safeguards if they are to receive our assistance on the Tarapur project.

The approach to negotiating this agreement was one of relying heavily on the United States bargaining power, but at the same time attempting to reach an amicable meeting of the minds on principal issues and accommodating India's concerns where possible without compromise to the basic principle that Agency safeguards are to be applied to the project at the appropriate time. While the agreement contains compromises, the Indians have accepted this basic principle and in so doing have relinquished their own strong position that the Agency should play no role in the safeguard arrangements. He believes that no better agreement could have been obtained and that the alternative to the present agreement is the elimination of the Tarapur Project. Thus, the issue is one of whether the important benefits flowing to the United States from this major example of cooperation should be relinquished because the Indians are unwilling to accept a safeguards arrangement precisely of the type we would prefer. Not the least of the benefits to be derived from the Tarapur Project would be the acceptance by the Indians in the first important instance of effective safeguards and their accepting in principle of international safeguards. The agreement would also develop close technical and economic ties between the United States and India in the important area of atomic energy and, in particular, would make the Indians dependent on the United States for the fuel supply of a one hundred million dollar power plant supplying an important part of the power requirements in the Bombay area.

2. Radiation Exposure to Personnel at Nevada Test Site (Unclassified)

Fifteen workers at the Nevada Test Site received varying levels of radiation doses when gases escaped into a tunnel in which they were engaged in re-entry work early Thursday, June 6, following a nuclear detonation in the same tunnel system June 3.

Examination of ten workers was completed early Saturday, June 8, at the Donner Laboratory of the University of California at Berkeley. Of the ten men who were examined in a whole body radiation counter, one received a calculated radiation dosage to the thyroid which was one-sixth the standard set for industrial workers (30 röntgens absorbed dose per year) and one a dosage equalling the standard. The others all received dosages to the thyroid exceeding the standard, ranging from 9 to 770 rad. There may be transient suppression of some thyroid gland function to the one individual receiving the 770 RAD dose. The highest radiation dosage to the thyroid was in the range of a therapeutic dose used for medical treatment of hyperthyroidism. The thyroid exposures resulted from inhalation of three radioactive isotopes of iodine. The examinations, plus instrument readings, showed that the radiation dosage received by the men from sources other than radioactive iodine was well under the standards established by the Federal Radiation Council. The remaining five men are presently being examined at Nevada. The exact cause of this incident is not known at this time. A Board of Investigation has been established to look into this matter.

3. Congressional Hearings (Unclassified)

On June 3, I briefed the Joint Committee in executive session on my recent trip to the Soviet Union. At this session, the members of the Committee announced their intention to amend the Atomic Energy Act to extend the Joint Committee's authorization jurisdiction to the operating portion of AEC's annual budget. Currently, the Committee authorizes only "plant or facility acquisition, construction or expansion" and operating funds for the cooperative power reactor demonstration program. I responded that this is not the direction in which the Commission would voluntarily move and expressed the desire to discuss the matter with the Administration. I have discussed this with Kenneth Gordon and have requested his comments and guidance.

Last week, the Commission presented its testimony before the Public Works Subcommittee of the House Appropriations Committee on the Commission's Fiscal Year 1964 budget. The Commission's research and development programs, particularly those in the physical research area, were subjected to rather intensive questioning and in my judgment it seems certain that the Committee will recommend major cuts in this particular activity.

Dr. Gerald Tapp, your designee to replace Commissioner Leland Beers, and I are scheduled to appear before the Senate section of the Joint Committee for confirmation hearings on June 13.

Respectfully submitted,

Signed Glen T. Seaborg

Glen T. Seaborg

The President
The White House



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

JUN 11 1966

ENCL. BY DOE
NOV 66

Dear Ros:

This will acknowledge your letter of May 22, 1963, concerning the proposed FY 1965 stockpile of nuclear weapons. Since we have previously agreed that proposed stockpiles would be presented to the President by a joint AEC-DoD letter setting forth the broad budgetary implications of the proposed stockpile, and as we believe there are several matters which need to be resolved prior to sending forward such a joint letter, we agree with your suggestion that these matters be discussed at a joint DoD-DoE-WH-AEC meeting at the earliest possible time. The results of this meeting would establish the basis for the joint letter to the President.

Specifically with regard to the proposed FY 1965 stockpile our preliminary analysis indicates that it is within the weapons fabrication capability of the Commission. Special nuclear materials requirements are compatible with presently projected availability of these materials. However, the availability of newly produced reactor products is contingent upon the President's decision with respect to long term requirements and an approved production program.

We are at the present time reviewing the status of our FY 1964 and FY 1965 budgets for weapons fabrication. It is our opinion, based on preliminary estimates and experience to date, that the approved and adjusted FY 1964 stockpile and the proposed FY 1965 stockpile can be accomplished within the weapons fabrication budget for FY 1964 and the previous projection of \$275 million for FY 1965. We would like to specifically note that we do not have Department of Defense R&D requirements stated beyond the A and B programs now in process. As you recognize, significant additional R&D requirements would affect our cost estimates.

For your information, staff representatives from the Division of Military Application, the Military Liaison Committee and the Assistant to the Secretary of Defense (Atomic Energy), met on May 31, 1963, and reached agreement on the numbers of total nuclear weapons in the

presently approved and adjusted FY 1964 stockpile and the May 22, 1963, proposed FY 1965 stockpile. Attached as an enclosure to this letter are these complete FY 1964 and FY 1965 stockpiles, by complete nuclear weapons and major non-nuclear components. It is recognized that some of the major non-nuclear components as well as the nuclear capsules distribution may require revision as complete information on these items is not presently available to us.

Included as part of the enclosure, is a FY 1965 stockpile based on our interpretation of the December 20, 1962, DoD-DoB-WH-AEC meeting. This latter stockpile is included for comparison, as we believe there was not complete agreement on the results of that meeting, and this subject should be discussed at the proposed DoD-DoB-WH-AEC meeting.

Also, included in the enclosure, but not as part of the proposed Presidentially approved operational stockpile, is a list of the over-build weapons for Stockpile Sampling Tests. Since these weapons are now in appreciable numbers and are expected to increase in the future, we believe they should be included in a complete listing of the stockpile. Although we do not believe they should be included as part of the Presidentially approved operational stockpile, the Commission does require Presidential authorization to manufacture these weapons, and suggests that they be included and identified in the list that is submitted to the President.

The Commission continues to believe that a joint AEC-DoD stockpile presentation is to our mutual advantage and provides the President the facts upon which to make a decision.

The proposed early meeting between the DoD-DoB-AEC and the White House staff would materially assist in expeditious resolution of the major problems and form the base for preparation of a joint AEC-DoD letter. We have, by separate correspondence, forwarded copies of this letter to Mr. Merritt Gordon, and Mr. McGeorge Bundy, and at the same time recommended an early joint meeting.

Sincerely yours,

232 Commencement Address at American University in
Washington. June 10, 1963

President Anderson, members of the faculty, board of trustees, distinguished guests, my old colleague, Senator Bob Byrd, who has earned his degree through many years of attending night law school, while I am earning mine in the next 30 minutes, ladies and gentlemen:

It is with great pride that I participate in this ceremony of the American University,

sponsored by the Methodist Church, founded by Bishop John Fletcher Hurst, and first opened by President Woodrow Wilson in 1914. This is a young and growing university, but it has already fulfilled Bishop Hurst's enlightened hope for the study of history and public affairs in a city devoted to the making of history and to the conduct of the public's business. By sponsoring this

institution of higher learning for all who wish to learn, whatever their color or their creed, the Methodists of this area and the Nation deserve the Nation's thanks, and I commend all those who are today graduating.

Professor Woodrow Wilson once said that every man sent out from a university should be a man of his nation as well as a man of his time, and I am confident that the men and women who carry the honor of graduating from this institution will continue to give from their lives, from their talents, a high measure of public service and public support.

"There are few earthly things more beautiful than a university," wrote John Masefield, in his tribute to English universities—and his words are equally true today. He did not refer to spires and towers, to campus greens and ivied walls. He admired the splendid beauty of the university, he said, because it was "a place where those who hate ignorance may strive to know, where those who perceive truth may strive to make others see."

I have, therefore, chosen this time and this place to discuss a topic on which ignorance too often abounds and the truth is too rarely perceived—yet it is the most important topic on earth: world peace.

What kind of peace do I mean? What kind of peace do we seek? Not a Pax Americana enforced on the world by American weapons of war. Not the peace of the grave or the security of the slave. I am talking about genuine peace, the kind of peace that makes life on earth worth living, the kind that enables men and nations to grow and to hope and to build a better life for their children—not merely peace for Americans but peace for all men and women—not merely peace in our time but peace for all time.

I speak of peace because of the new face of war. Total war makes no sense in an age when great powers can maintain large and relatively invulnerable nuclear forces and refuse to surrender without resort to those

forces. It makes no sense in an age when a single nuclear weapon contains almost ten times the explosive force delivered by all of the allied air forces in the Second World War. It makes no sense in an age when the deadly poisons produced by a nuclear exchange would be carried by wind and water and soil and seed to the far corners of the globe and to generations yet unborn.

Today the expenditure of billions of dollars every year on weapons acquired for the purpose of making sure we never need to use them is essential to keeping the peace. But surely the acquisition of such idle stock-piles—which can only destroy and never create—is not the only, much less the most efficient, means of assuring peace.

I speak of peace, therefore, as the necessary rational end of rational men. I realize that the pursuit of peace is not as dramatic as the pursuit of war—and frequently the words of the pursuer fall on deaf ears. But we have no more urgent task.

Some say that it is useless to speak of world peace or world law or world disarmament—and that it will be useless until the leaders of the Soviet Union adopt a more enlightened attitude. I hope they do. I believe we can help them do it. But I also believe that we must reexamine our own attitude—as individuals and as a Nation—for our attitude is as essential as theirs. And every graduate of this school, every thoughtful citizen who despairs of war and wishes to bring peace, should begin by looking inward—by examining his own attitude toward the possibilities of peace, toward the Soviet Union, toward the course of the cold war and toward freedom and peace here at home.

First: Let us examine our attitude toward peace itself. Too many of us think it is impossible. Too many think it unreal. But that is a dangerous, defeatist belief. It leads to the conclusion that war is inevitable—that mankind is doomed—that we are gripped by forces we cannot control.

We need not accept that view. Our problems are manmade—therefore, they can be

solved by man. And man can be as big as he wants. No problem of human destiny is beyond human beings. Man's reason and spirit have often solved the seemingly unsolvable—and we believe they can do it again.

I am not referring to the absolute, infinite concept of universal peace and good will of which some fantasies and fanatics dream. I do not deny the value of hopes and dreams but we merely invite discouragement and incredulity by making that our only and immediate goal.

Let us focus instead on a more practical, more attainable peace—based not on a sudden revolution in human nature but on a gradual evolution in human institutions—on a series of concrete actions and effective agreements which are in the interest of all concerned. There is no single, simple key to this peace—no grand or magic formula to be adopted by one or two powers. Genuine peace must be the product of many nations, the sum of many acts. It must be dynamic, not static, changing to meet the challenge of each new generation. For peace is a process—a way of solving problems.

With such a peace, there will still be quarrels and conflicting interests, as there are within families and nations. World peace, like community peace, does not require that each man love his neighbor—it requires only that they live together in mutual tolerance, submitting their disputes to a just and peaceful settlement. And history teaches us that enmities between nations, as between individuals, do not last forever. However fixed our likes and dislikes may seem, the tide of time and events will often bring surprising changes in the relations between nations and neighbors.

So let us persevere. Peace need not be impracticable, and war need not be inevitable. By defining our goal more clearly, by making it seem more manageable and less remote, we can help all peoples to see it, to draw hope from it, and to move irresistibly toward it.

Second: Let us reexamine our attitude

toward the Soviet Union. It is discouraging to think that their leaders may actually believe what their propagandists write. It is discouraging to read a recent authoritative Soviet text on *Military Strategy* and find, on page after page, wholly baseless and incredible claims—such as the allegation that “American imperialist circles are preparing to unleash different types of wars . . . that there is a very real threat of a preventive war being unleashed by American imperialists against the Soviet Union . . . [and that] the political aims of the American imperialists are to enslave economically and politically the European and other capitalist countries . . . [and] to achieve world domination . . . by means of aggressive wars.”

Truly, as it was written long ago: “The wicked flee when no man pursueth.” Yet it is sad to read these Soviet statements—to realize the extent of the gulf between us. But it is also a warning—a warning to the American people not to fall into the same trap as the Soviets, not to see only a distorted and desperate view of the other side, not to see conflict as inevitable, accommodation as impossible, and communication as nothing more than an exchange of threats.

No government or social system is so evil that its people must be considered as lacking in virtue. As Americans, we find communism profoundly repugnant as a negation of personal freedom and dignity. But we can still hail the Russian people for their many achievements—in science and space, in economic and industrial growth, in culture and in acts of courage.

Among the many traits the peoples of our two countries have in common, none is stronger than our mutual abhorrence of war. Almost unique, among the major world powers, we have never been at war with each other. And no nation in the history of battle ever suffered more than the Soviet Union suffered in the course of the Second World War. At least 20 million lost their lives. Countless millions of homes and farms were burned or sacked. A third of the nation's territory, including nearly two

thirds of its industrial base, was turned into a wasteland—a loss equivalent to the devastation of this country east of Chicago.

Today, should total war ever break out again—no matter how—our two countries would become the primary targets. It is an ironic but accurate fact that the two strongest powers are the two in the most danger of devastation. All we have built, all we have worked for, would be destroyed in the first 24 hours. And even in the cold war, which brings burdens and dangers to so many countries, including this Nation's closest allies—our two countries bear the heaviest burdens. For we are both devoting massive sums of money to weapons that could be better devoted to combating ignorance, poverty, and disease. We are both caught up in a vicious and dangerous cycle in which suspicion on one side breeds suspicion on the other, and new weapons beget counterweapons.

In short, both the United States and its allies, and the Soviet Union and its allies, have a mutually deep interest in a just and genuine peace and in halting the arms race. Agreements to this end are in the interests of the Soviet Union as well as ours—and even the most hostile nations can be relied upon to accept and keep those treaty obligations, and only those treaty obligations, which are in their own interest.

So, let us not be blind to our differences—but let us also direct attention to our common interests and to the means by which those differences can be resolved. And if we cannot end now our differences, at least we can help make the world safe for diversity. For, in the final analysis, our most basic common link is that we all inhabit this small planet. We all breathe the same air. We all cherish our children's future. And we are all mortal.

Third: Let us reexamine our attitude toward the cold war, remembering that we are not engaged in a debate, seeking to pile up debating points. We are not here distributing blame or pointing the finger of judgment. We must deal with the world

as it is, and not as it might have been had the history of the last 18 years been different.

We must, therefore, persevere in the search for peace in the hope that constructive changes within the Communist bloc might bring within reach solutions which now seem beyond us. We must conduct our affairs in such a way that it becomes in the Communists' interest to agree on a genuine peace. Above all, while defending our own vital interests, nuclear powers must avert those confrontations which bring an adversary to a choice of either a humiliating retreat or a nuclear war. To adopt that kind of course in the nuclear age would be evidence only of the bankruptcy of our policy—or of a collective death-wish for the world.

To secure these ends, America's weapons are nonprovocative, carefully controlled, designed to deter, and capable of selective use. Our military forces are committed to peace and disciplined in self-restraint. Our diplomats are instructed to avoid unnecessary irritants and purely rhetorical hostility.

For we can seek a relaxation of tensions without relaxing our guard. And, for our part, we do not need to use threats to prove that we are resolute. We do not need to jam foreign broadcasts out of fear our faith will be eroded. We are unwilling to impose our system on any unwilling people—but we are willing and able to engage in peaceful competition with any people on earth.

Meanwhile, we seek to strengthen the United Nations, to help solve its financial problems, to make it a more effective instrument for peace, to develop it into a genuine world security system—a system capable of resolving disputes on the basis of law, of insuring the security of the large and the small, and of creating conditions under which arms can finally be abolished.

At the same time we seek to keep peace inside the non-Communist world, where many nations, all of them our friends, are divided over issues which weaken Western unity, which invite Communist intervention or which threaten to erupt into war. Our efforts in West New Guinea, in the Congo,

in the Middle East, and in the Indian sub-continent, have been persistent and patient despite criticism from both sides. We have also tried to set an example for others—by seeking to adjust small but significant differences with our own closest neighbors in Mexico and in Canada.

Speaking of other nations, I wish to make one point clear. We are bound to many nations by alliances. Those alliances exist because our concern and theirs substantially overlap. Our commitment to defend Western Europe and West Berlin, for example, stands undiminished because of the identity of our vital interests. The United States will make no deal with the Soviet Union at the expense of other nations and other peoples, not merely because they are our partners, but also because their interests and ours converge.

Our interests converge, however, not only in defending the frontiers of freedom, but in pursuing the paths of peace. It is our hope—and the purpose of allied policies—to convince the Soviet Union that she, too, should let each nation choose its own future, so long as that choice does not interfere with the choices of others. The Communist drive to impose their political and economic system on others is the primary cause of world tension today. For there can be no doubt that, if all nations could refrain from interfering in the self-determination of others, the peace would be much more assured.

This will require a new effort to achieve world law—a new context for world discussions. It will require increased understanding between the Soviets and ourselves. And increased understanding will require increased contact and communication. One step in this direction is the proposed arrangement for a direct line between Moscow and Washington, to avoid on each side the dangerous delays, misunderstandings, and misreadings of the other's actions which might occur at a time of crisis.

We have also been talking in Geneva about other first-step measures of arms control,

designed to limit the intensity of the arms race and to reduce the risks of accidental war. Our primary long-range interest in Geneva, however, is general and complete disarmament—designed to take place by stages, permitting parallel political developments to build the new institutions of peace which would take the place of arms. The pursuit of disarmament has been an effort of this Government since the 1920's. It has been urgently sought by the past three administrations. And however dim the prospects may be today, we intend to continue this effort—to continue it in order that all countries, including our own, can better grasp what the problems and possibilities of disarmament are.

The one major area of these negotiations where the end is in sight, yet where a fresh start is badly needed, is in a treaty to outlaw nuclear tests. The conclusion of such a treaty, so near and yet so far, would check the spiraling arms race in one of its most dangerous areas. It would place the nuclear powers in a position to deal more effectively with one of the greatest hazards which man faces in 1963, the further spread of nuclear arms. It would increase our security—it would decrease the prospects of war. Surely this goal is sufficiently important to require our steady pursuit, yielding neither to the temptation to give up the whole effort nor the temptation to give up our insistence on vital and responsible safeguards.

I am taking this opportunity, therefore, to announce two important decisions in this regard.

First: Chairman Khrushchev, Prime Minister Macmillan, and I have agreed that high-level discussions will shortly begin in Moscow looking toward early agreement on a comprehensive test ban treaty. Our hopes must be tempered with the caution of history—but with our hopes go the hopes of all mankind.

Second: To make clear our good faith and solemn convictions on the matter, I now declare that the United States does not propose to conduct nuclear tests in the atmosphere

so long as other states do not do so. We will not be the first to resume. Such a declaration is no substitute for a formal binding treaty, but I hope it will help us achieve one. Nor would such a treaty be a substitute for disarmament, but I hope it will help us achieve it.

Finally, my fellow Americans, let us examine our attitude toward peace and freedom here at home. The quality and spirit of our own society must justify and support our efforts abroad. We must show it in the dedication of our own lives—as many of you who are graduating today will have a unique opportunity to do, by serving without pay in the Peace Corps abroad or in the proposed National Service Corps here at home.

But wherever we are, we must all, in our daily lives, live up to the age-old faith that peace and freedom walk together. In too many of our cities today, the peace is not secure because freedom is incomplete.

It is the responsibility of the executive branch at all levels of government—local, State, and National—to provide and protect that freedom for all of our citizens by all means within their authority. It is the responsibility of the legislative branch at all levels, wherever that authority is not now adequate, to make it adequate. And it is the responsibility of all citizens in all sections of this country to respect the rights of all others and to respect the law of the land.

All this is not unrelated to world peace. "When a man's ways please the Lord," the Scriptures tell us, "he maketh even his enemies to be at peace with him." And is not peace, in the last analysis, basically a

matter of human rights—the right to live out our lives without fear of devastation—the right to breathe air as nature provided it—the right of future generations to a healthy existence?

While we proceed to safeguard our national interests, let us also safeguard human interests. And the elimination of war and arms is clearly in the interest of both. No treaty, however much it may be to the advantage of all, however tightly it may be worded, can provide absolute security against the risks of deception and evasion. But it can—if it is sufficiently effective in its enforcement and if it is sufficiently in the interests of its signers—offer far more security and far fewer risks than an unabated, uncontrolled, unpredictable arms race.

The United States, as the world knows, will never start a war. We do not want a war. We do not now expect a war. This generation of Americans has already had enough—more than enough—of war and hate and oppression. We shall be prepared if others wish it. We shall be alert to try to stop it. But we shall also do our part to build a world of peace where the weak are safe and the strong are just. We are not helpless before that task or hopeless of its success. Confident and unafraid, we labor on—not toward a strategy of annihilation but toward a strategy of peace.

NOTE: The President spoke at the John M. Reeves Athletic Field on the campus of American University after being awarded an honorary degree of doctor of laws. In his opening words he referred to Hurst R. Anderson, president of the university, and Robert C. Byrd, U.S. Senator from West Virginia.

the agreed upon procedure with respect to the letter to the President on FY 1965 stockpile of weapons. The letter should be joint AEC-DOD and point out budget implications.

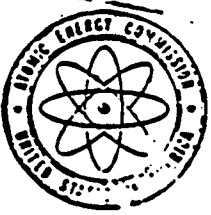
I wrote to Bill Foster (copy attached) proposing a Plowshare annex to the Test Ban Treaty that would eliminate device disclosure but prohibit diagnostic instrumentation and make debris samples available.

At 3:45 p.m. I called Carl Kaysen and told him that Howard Simons has called Ink and Ramey regarding atmospheric testing. Somebody has talked to him, and he thinks he has a story, and now he wants verification. Simons understands that there is a list of atmospheric tests in connection with possible plans for future testing. He understands that there are studies under way for large weapons--15 to 100 megatons. He asked whether the President's speech at the American University commencement changes anything. He wants to know whether Johnston Island is being allowed to deteriorate or what activities are going on there. Kaysen said it isn't surprising that somebody might have talked to Simons. He suggested replying that we are always making studies, always considering our readiness, but the details of what we are doing are classified and will so remain. He wasn't disturbed about the possibility. At this point Kaysen said that Simons was calling him. I asked that he let me know what develops.

Rickover came in to see me about 5 p.m. He said he had just come from a meeting with Navy Secretary Korth, which was rather stormy. The Secretary insisted that someone from the Navy, such as Wilkinson, act as his deputy, reserving veto power to Rickover. Rickover said this is totally unacceptable, that his closely-knit group of five associates--Rockwell, Panoff, Leighton, Mandil, Crawford--wouldn't stand for such an arrangement and would quit. I mentioned to Rickover that there is some feeling that he should appoint a deputy from among his five associates, in case he himself should develop a disability. He again insisted that this will not present any problem because any one of the five could take over but that it would present a problem if we tried to disrupt his organization by making a decision now. He said that this matter is going to lead to some trouble and that he needs my support.

I called Kaysen again at 5:40 p.m. to find out about his telephone conversation with Howard Simons. Kaysen said that Simons must have been much fiercer with our people than he was with him. Kaysen told him, "we are always thinking about maintaining readiness; and, if you are thinking about that, you have to think about what you will test," but he could give him no details because they were classified. Simons asked whether we are working on big weapons. Kaysen asked whom he meant by "we" and, when he said, "the Pentagon," Kaysen said that the Pentagon is always talking about things like that. I said our people feel committed to talk to Simons. Kaysen suggested the following guidelines: 1. refuse to comment on any details regarding Johnston Island--it's being maintained in a readiness state. 2. regarding a list of atmospheric tests, of course, we have such a list but it is classified. 3. regarding the question of whether the President's speech changes anything--there is no intention to depart from our stand--we won't be surprised again, but this does not mean that, if the Russians test on September 1st, we would test on the 2nd. 4. would we stop underground testing? Kaysen told Simons that we have no such intentions unless we get a treaty. I also discussed my suggested plan regarding Plowshare in a test ban, but I failed to convince him.

I talked to Secretary Rusk by phone at 7 p.m. in my home about the memorandum on Plowshare that I sent him today. He said he has not seen it yet. I explained that there are aspects of this that are perhaps worth exploring at a Principals meeting before we meet with the President. Due to the postponement of Friday's (June 14th) proposed meeting with the President, this might be possible. Rusk agreed and said



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

OFFICE DIARY
GLENN T. SEABORG
CH-USAEC, 1961-72
FOLDER-PAGE 30 43

JUN 11 1963

UNCL. BY DOE
NOV 88 901959

Dear Bill:

We have reviewed your memorandum of May 31, 1963, on peaceful nuclear explosions in relation to a test ban. The alternatives for conducting Plowshare experiments with disclosable devices are not feasible in our opinion and in the opinion of the Lawrence Radiation Laboratory, Livermore, which provides technical direction for the Plowshare program. Without extremely clean nuclear explosives, which probably could not be disclosed, only limited experimental progress could be made, and useful projects would probably be neither safe nor economically justified. Explosives are in prospect from which only [REDACTED] need to be controlled rather than hundreds of thousands of tons from all-fission devices. Furthermore, special devices of unique and advanced design are needed for important scientific experiments, such as heavy element production.

DELETED

DELETED

In order to increase further the safeguards available for deterring radical improvement in nuclear bombs or warheads by weapon testing in conjunction with Plowshare projects, our study indicates that we can forego all diagnostic instrumentation at the site of Plowshare experiments and provide opportunity for adequate inspection to assure that no such instrumentation is being used. Further, since it is not practical to guard on a continuing basis against access by the sponsoring country to the debris from Plowshare experiments, we would suggest incorporation of the additional provision of making available samples of debris to the other permanent members of the Commission. This debris provision might raise some legal questions but they would certainly be less severe than those raised by the device design disclosure requirement.

We should note the extreme difficulty of obtaining Congressional authorization to reveal the design of any nuclear devices and the near certainty that Congress would not be willing to authorize disclosure of anything more advanced than an obsolete all-fission explosive. Our proposal would obviate the need for obtaining such Congressional approval for revealing the design of any nuclear device. Also, vigorous objection on the part of many members of Congress could be expected if adequate provision were not made for reasonable progress in Plowshare.

With reference to your suggestion, contained in Paragraph III of Annex "B" to your memorandum, that if the design disclosure safeguard

CLASSIFICATION CANCELLED
WITH DELETIONS
BY AUTHORITY OF DOE/OC

C. G. ... 6/9/86
REVIEWED BY *S. ...* DATE 6/12/86

were eliminated you would prefer not to have a quota safeguard we would be willing to defer to your judgment. The absence of such a limitation, of course, would be advantageous to Plowshare.

In summary then, we recommend that the device design disclosure safeguard be eliminated and that the following additional provisions be incorporated:

- (a) No diagnostic instrumentation would be permitted in connection with any Plowshare experiment and inspection would be permitted to assure that no such diagnostic instrumentation was being used;
- (b) The nation sponsoring Plowshare experiments would be required to make debris samples available to the other permanent members of the Commission.

This would be in addition to all of the inspection procedures contained in the present draft treaty.

Sincerely,



Glenn T. Seaborg

Honorable William C. Foster
Director, United States Arms Control
& Disarmament Agency
Washington 25, D. C.

CC: Honorable Jerome B. Wiesner (2i)
Honorable McGeorge Bundy (3i)
Honorable John A. McCone (4i)
Honorable Dean Rusk (5A)
Honorable Robert S. McNamara (6A)
Honorable Gerald W. Johnson (7A)

he would explore this possibility.

George Brown, a UCLA friend, and Professor and Mrs. Will Dennes of Berkeley visited us at home.

Wednesday, June 12, 1963 - Germantown

At 9:30 a.m. Helen and I attended Steve's graduation from Murch School which was followed by a reception for the parents.

At 11:20 a.m. I called Wiesner regarding the role of Plowshare in a test ban treaty and I told him I have discussed it several times with Kaysen. Bundy had not yet read the memorandum (attached on June 11th) I sent him but had routed it to Kaysen. I said I had asked Kaysen to pass on to Bundy our general conversation. I said I talked to Rusk yesterday; and, although he hadn't seen my memo either, he seems to feel that a meeting of the Principals is feasible. It might be held on Friday, June 14th--a time made available due to cancellation of the meeting with the President.

At this point Wiesner urged me very strongly to have Dr. Tape handle our weapons and disarmament matters. He said that we are at a distinct disadvantage when he (Wiesner) is the only technical person present at these meetings. I said I will ask Tape to go with Haworth to the meeting at 4 p.m. tomorrow in Foster's office.

At 12:20 p.m. I also called Kaysen and told him about my telephone conversation with Secretary Rusk yesterday evening and his suggestion that we might have a meeting of the Principals (without the President) on Friday. I said I also mentioned to Bill Foster our thoughts about holding such a meeting and that I got the impression he will look into it. Kaysen said he will take a look at the President's schedule and see what could be done about a meeting of the Principals with the President.

Fritsch and I had lunch with Don Stewart to discuss progress on the SNAP report; they seem to be concluding that Sr-90 is superior to Pu-238 and Cm-244 for isotopic power. I fear this places too much emphasis on costs and ignores other factors.

Commissioner Wilson and I met with White and Lalor of G.E. White gave us a disturbing appraisal--that the fuel element situation in all water-cooled power reactors (G.E. and Westinghouse) is not good and more AEC-supported research is needed.

At 2:30 p.m. today William Gaud (Assistant Administrator, Bureau for Near East and South Asia, AID Agency) called and said he understands that I am to testify tomorrow on Tarapur. I said, no, but that I wanted to see Senator Pastore about the project but that he is out of town. Gaud said that Dave Bell asked him to call me, to be sure that I understand where they stand on the project. They are very eager to do it in this fiscal year because they have the money, whereas next year there may be difficulties. He said they are nearly through the study of the project and on the technical side they see no reason not to go through with it. They are anxious to have an appropriate agreement on the safeguards and on fuel arrangements. They would hate to have Pastore spoil it because of his stand on safeguards. I said I would try to see Pastore next week, and that I don't think he will introduce any roadblock. Gaud asked that, after I had seen Pastore, I let him know where the Senator stands.

At 2:40 p.m. I presided over Commission Meeting 1940 (action summary attached).

At 3:30 p.m. I presided over Information Meeting 282 (notes attached). We made

UNITED STATES GOVERNMENT

Memorandum

EXCL. BY DOE
NOV 63

TO : A. R. Luedecke, General Manager

DATE: June 13, 1963

Approved A. R. Luedecke

FROM : W. B. McCool, Secretary

Date 6/13/63SUBJECT: ACTION SUMMARY OF MEETING 1940, WEDNESDAY, JUNE 12, 1963, 2:40 P.M.,
ROOM A-410, GERMANTOWN, MARYLAND

SECY:JFG

Commission Business1. Minutes of Meeting 1929Approved, as revised, subject to comments by Commissioners
Haworth and Palfrey.2. AEC 124/42 - AEC-DOD Maneuver Agreement

Approved. (Betts)

3. AEC 901/49 - Participation in Unclassified Research by USSR
National at Argonne Cancer Research Hospital

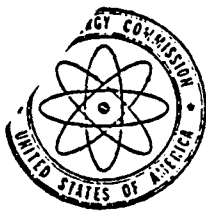
Approved. (Wells)

Other BusinessDraft Letter to Justice Department re Philips Patent MatterThe Chairman requested a report as to the filing of patent
applications and other compliance with the reporting requirements
of the Atomic Energy Acts of 1946 and 1954 in the cases of the
more important applications for just compensation and awards.

(Hennessey/Kingsley)

Commissioner Ramey requested a report as to the extent to which
the legislative history of the 1961 patent amendments to the Atomic
Energy Act reflected legislative intent concerning the reporting
requirements of the patent provisions of the Act. (Hennessey/Kingsley)The Commissioners indicated they would consider the matter
further after review of the information requested above.

cc: Commissioners



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

JH

COPY NO. 15
June 13, 1963

INFORMATION MEETING 232

3:30 p. m., Wednesday, June 12, 1963, Room A-410, Germantown

1. Appointment of Assistant Director for Reactors, Division of Compliance

The Chairman and Dr. Wilson had no objection to the recommended appointment. Mr. Price is to discuss the recommendation with Commissioners Ramey, Haworth and Palfrey tomorrow.

2. THUMBELINA Event

The Chairman raised the question of possible effects of this event and the General Manager said he had requested recalculation of the possible effects. The Chairman requested the White House be kept informed.
(Ink-Brown)

✓ 3. White House Memo With Interpretation of the President's June 10 Speech

To be circulated. (Secy)

✓ 4. *T.S - do not recall*
Letter to Secretary of Defense Re 65 Stockpile (Chairman's June 11 Letter to Secretary Gilpatric

The Chairman commented that he had not heard from the Secretary since the Commissioners met with Gerald Johnson yesterday. The General Manager said the letter has been referred to the Joint Chiefs of Staff for review.

5. Meeting of Principals to Discuss Test Ban

The Chairman said a meeting will possibly be scheduled next week.

6. Meeting of Principals to Discuss PLOWSHARE Article of Test Ban Treaty

The Chairman said he hoped there would be an early meeting on this subject.

7. White House Meeting Tomorrow to Discuss President's Visit to Europe

The Chairman said he would try to attend.

✓ 8. ACDA May 20 Letter Re Weapons Development Study

The Chairman noted Mr. Foster's letter expressed some concern and his readiness to discuss the matter.

9. Chairman's June 11 Meeting with Admiral Rickover

The Chairman discussed briefly his meeting with Admiral Rickover and suggested that Mr. Ramey discuss the organizational proposal with Admiral Rickover.

10. The Chairman's Meeting With Louis Roddis (Atomic Industrial Forum)

The Chairman said the following matters were covered in his recent meeting with Mr. Roddis.

- a. AEC-AIF luncheon Monday September 9.
- b. Soviet attendance at the November 18 AIF meeting. (The Chairman said he had previously discussed this possibility with Petrosyants.)
- c. AIF Special Committee Study of industrial operation of gaseous diffusion plants. (The Commissioners agreed a note to Mr. Roddis should suggest a one-year deferral.)
- d. AIF meeting with AEC representatives to discuss isotopes program.

(The Commissioners agreed it is desirable and suggested a Commissioner attend with staff)

- e. AIF comments re Commission's SNAP Study. (Mr. Roddis said their comments will be forthcoming soon.)
- f. Jurisdictional conflicts re regulation of radio pharmaceuticals. (AIF is studying this matter.)
- g. Interagency Committee study on use of reactors in saline water program. (Mr. Roddis expressed AIF interest in the study.)

h. Special committee study of energy resources. (AIF interest was expressed by Mr. Roddis.)

i. AIF Task Force on public understanding of the atomic energy program (Mr. Roddis discussed briefly the reason for establishing the Task Force.) (Brown-GM-Secy)

11. Confirmation Hearings For the Chairman and Dr. Tape Scheduled For June 20 - 10:00 a.m.

12. Schedule of Commission Business During August.
Noted for planning purposes. (GM-DR-Secy)

13. SNAP 50 Funding

The General Manager explained the background of the vagueness of the language with regard to funding for the joint program. The Chairman said he would sign the proposed letter. (Brown)

14. Commissioners Luncheon Meeting with Labor leaders Week of July 1

The Chairman suggested that a luncheon meeting be arranged with appropriate labor representatives. (Smith-Brown-Secy)

15. Query Re Release of Mercury

In response to the Chairman's comment, the General Manager said this matter is in review.

16. Chairman's Attendance at Cyclotron Dedication at University of Colorado June 29-30

17. 1965 Stockpile and 1972 Projections

The Chairman discussed the need for a report which would provide historical perspective to the forthcoming decisions on this matter and the Commissioner's requested preparation of a white paper which should include such considerations as the details of the construction program in the 50's, background on the NPR project and production requirements placed on the AEC. Laboratory reviews will be obtained on the proposed requirements and a DOD briefing is to be scheduled additionally. The Commissioners also requested that the criterion for projected production planning take into account such matters as balance between the AEC sites, effect on the communities and areas involved, etc. (Brown, Quinn, Betts, Secy)

18. Tarapur Reactor Project

Mr. Wells described briefly the proposed approach to Mr. Bhabha with respect to safeguards, etc. and the Chairman requested John Conway, JCAE staff, be informed of the sequence of meetings and that the Chairman will be discussing this matter with Mr. Bhabha shortly. (Wells-Brown)

• 19. Intelligence Report

20. General Manager's Report on Labor Trial in Nevada

21. General Manager's Meeting June 20 and 21 With Operations Managers (Albuquerque Operations Office)

PRESENT

Dr. Seaborg	General Luedecke
Dr. Wilson	Mr. Ferguson
Mr. Ramey	Mr. Brown
	Mr. McCool
	Mr. Wells*

DISTRIBUTION

Commissioners
General Manager
General Counsel
Secretary

*Attendance for Item 18 only.

W. B. McCool
Secretary

plans for a study of the effect of decreased plutonium and U-235 weapon requirements on the AEC production complex and shutdown schedule. This is probably the most important problem I have faced since I became Chairman. We also discussed Bundy's memo with interpretation of the President's June 10th speech and Bill Foster's May 20th letter about weapons development study (copy attached).

Helen and I attended a reception by Robert L. Stevenson (President, Allis Chalmers) at the Army-Navy Club and a reception by Secretary and Mrs. McNamara and Joint Chiefs of Staff Chairman and Mrs. Maxwell Taylor in honor of Mr. and Mrs. Gilpatric at Anderson House. I had a chance to talk to McNamara in some detail about my Russian trip, the plutonium and U-235 production curtailment problem, and my ideas about Plowshare in a test ban treaty.

Thursday, June 13, 1963 - D. C.

I spent the day with the group who went to Russia with me--Crewe, Zucker, Tape, Benedict, Luedecke, Fritsch, Wells and King (all except Ghiorso)--to work on our trip report.

I had lunch at the Roger Smith Hotel with the group.

Friday, June 14, 1963 - D.C.

From 9:30 to 9:50 a.m. I met with the President at the White House. I began the conversation by saying I had a message for him from President Leonid Brezhnev, Chairman of the Presidium of the USSR Supreme Soviet. Brezhnev said that Chairman Khrushchev wanted the President to know that he really means what he says about peaceful co-existence and peaceful cooperation in his speeches and in the documents sent to the President. I also said that Brezhnev himself extended his best personal regards to the President and to the President's family.

I told the President that Brezhnev was a personable man of nice appearance, about 55 years old, with more of a Western manner than most Soviets. I said that, although a number of people regard him as only a figurehead, there is a growing opinion, including that of Ambassador Foy Kohler, that he is assuming a position of increasing importance and may actually be the successor to Khrushchev. I said it was my opinion that he would be a man perhaps who would be easier to deal with than many Soviets we have had contact with; he has a friendly and warm manner.

I told the President that in my conversation with Brezhnev I had criticized mildly the fact that I couldn't learn what the total budget for peaceful uses was because Petrosyants had said that this was too intertwined with the total budget which includes industrial matters. I said that Petrosyants, who was present during the Brezhnev interview, responded to this by saying that the structure of his State Committee didn't allow this segregation of function and, since they didn't want to lie to me, they didn't give me this information.

I also mentioned that in my conversation with Brezhnev I had criticized the architecture in Moscow, and that Brezhnev had replied that only yesterday a government decision had been made to send Soviet architects to France and Italy, and perhaps to America, and that foreign architects were going to be invited to come to Moscow to design buildings on an experimental and competitive basis for use in the USSR.

I said that Brezhnev said he had told Petrosyants to show me everything that I wanted to see and that this edict had been followed. I said that I had deliberately asked to see some sites that had not been shown to foreigners and that all of these sites had been included and, in addition, others had been

9575 6/21-50

UNITED STATES ARMS CONTROL AND DISARMAMENT AGENCY
WASHINGTON

OFFICE OF
THE DIRECTOR

UNCL. BY DOE
NOV 88

MAY 20 1963

Dear Glenn:

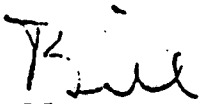
We have become aware of feasibility studies being made concerning the possibility of the development of a 100 megaton bomb capability for the United States.

While we do not have a basis for judgment as to the military necessity for such a bomb, there are a number of associated considerations related to arms control and disarmament policy which we believe should be taken into account at the time of the formulation of final recommendations to the President in connection with this matter.

These considerations, as we see them, deal largely with the effect on our negotiating position, political and psychological, and on the consistency of such a development with the principles and purposes of our nuclear capabilities, as set forth in Presidential and other statements.

We would be prepared to go into these considerations at the appropriate time and request that, if and when the military and technological requirements relating to the development of such a weapon have been further developed, a meeting of the Committee of Principals be held at which various aspects of the problem can be explored.

Sincerely,


William C. Foster

The Honorable
Glenn T. Seaborg, Chairman,
Atomic Energy Commission.

GROUP 1
Excluded from automatic
downgrading and
declassification

added. I mentioned the site some 600 miles east of Moscow where we were flown in a special plane and which is their center for the development of nuclear reactors.

I said that their work in nuclear power is similar to ours but they are not developing as many varieties and do not have nearly so much power on the line. They believe, as we do, however, that nuclear power has a role to play and that it will be competitive in high cost areas where the price of coal is high. One reason they are not so far along as we is probably because they haven't pressed so hard, due to their ample sources of conventional power. I said that they are building on a broad base, however, and that their budget for the peaceful uses of atomic energy is probably about equivalent to ours.

I said that they have a program in controlled thermonuclear reactions that is at least equivalent to ours and their budget in this field is probably larger than ours, but I reminded the President that this is a field in which the solutions probably will not come for another 20 years or more.

I said that they are making an extremely large effort in the field of the transuranium elements from the prestige point of view because they would like to be able to discover a new element and apply a Russian name, which would live in science books and history books forevermore. I said that the Russians have a good future program in the whole effort of peaceful uses of atomic energy.

The President asked me whether we received any important intelligence information, and I told him that we had a great deal. I said that much of the information available up to now is very general in nature.

The President mentioned the recent newspaper article by the Columbia professor in which he said that the U.S. has so many weapons that additional weapons only add to our over-kill capability. He asked what I thought about this, and I indicated that there is some truth in the idea that we may be reaching a point where weapons-build should diminish and mentioned the study that the DOD and the AEC are carrying on in this connection. I said that this will be one of the most serious decisions the Government has made in years and that the implementation of this will create many problems. I said the AEC is studying these problems and will be studying them in great detail in the coming months in order to decide which plutonium plants to shut down and where to lower the power to the gaseous diffusion plants. I said that this curtailment of production of fissionable material will lead to great dislocations in employment and further add to the difficulties in the coal industry due to the large amount of coal used to develop power for our gaseous diffusion plants.

The President asked whether the Commission was unanimous in its view that there is a need for cutback in weapons production, and I said we were essentially agreed although one Commissioner, Ramey, had some qualms about it. He asked how Ramey was getting along on the Commission and I said that it was going quite well and that there were a diminishing number of instances when difficulties arose.

I went on to compliment the President on his speech at American University and indicated that this will lead to problems with respect to readiness for atmospheric testing. I told him about our plans for enlarging Johnston Island and said that this and other preparations would have to begin almost immediately in order to meet the test date of a year from this summer. He indicated that we shouldn't make any preparations that would attract attention until after the forthcoming Harriman talks in Moscow in July.

The President asked me whether I believed that the recent indication of Soviet atmospheric tests of one kt. was valid. He thought perhaps this was an underground

shot that vented. I said that the acoustic and electromagnetic signals that were used in a case like this can only come from an atmospheric event, and there is no indication of debris as yet. I expressed some doubt that this could be a real atmospheric test due to its small size and the fact that it appears to have come at the same time that they were publishing the President's American University speech in Pravda and Izvestia.

The President asked if the use of his airplane had been helpful. I said that it had been, and that it made quite an impression when we arrived in Moscow and were met by Petrosyants and his four deputies. I explained that the USSR State Committee operates with a Chairman and four deputies but that the Chairman has a great deal more power than our Chairman.

The President brought the meeting to a close by saying that he was very happy that our trip to the Soviet Union had been so successful, and I indicated I thought it contributed to good relations between our countries.

At 10 a.m. Dr. Frank Long called. He wanted to know what areas of significant technical cooperation we had covered during our USSR trip. Particularly, he asked whether the very large accelerator had been discussed. I said we had discussed it informally, but there was nothing definite. At one stage I mentioned to the Russians that it might be a good idea to follow up the Russian 70-Bev accelerator with a 200-Bev one in the U.S. and then consider a 800-Bev on an international level. The Russians acquiesced in a general way. Long commented that this would not be for the immediate future. I said, no, but that the delay is partly our doing. I said that if we were going to build a 800-Bev accelerator it would not be too soon to start talking about it immediately because it will take a long time to iron out the details.

He asked whether the Russians brought up any other technical cooperation areas. I mentioned the areas covered in our Agreement of Cooperation: nuclear power, cooperation on corrosion, super-heat aspects of nuclear power. He asked whether any joint programs were mentioned. I mentioned possible cooperation along the lines of transuranium elements. The Russians might send a scientist to Berkeley for possible collaboration on the discovery of a new element. Long then asked what they have in the way of neutron flux. I said theirs is the highest in the world, and that this was the first time it was shown to Westerners.

He said they might try for size one or two papers on significant areas of technical cooperation. I told him that Petrosyants would be coming here in the fall with a group of about ten people and, if he had some ideas by then, we could work on it at the time of the visit. Also, we will begin exchanging people to work here and in Russia for a year at a time.

Regarding Long's area, I said that most of the people did not know anything about it; they were inclined to stick to the Russian line of, "Why do you need these inspections?"

As the guest of Ken Nichols and Charles Weaver of Westinghouse, I attended a luncheon at the Army-Navy Club in honor of Roger Gaspard (President, Electricite de France). Also attending were Raymond Gignet (President, Senn Project), J. D. Haight (Westinghouse), W. E. Johnson (General Manager, Atomic Power Division, Westinghouse), Commissioners Wilson, Ramey and Palfrey, Brigadier General Vogel (consultant to the World Bank), Dr. Vander Weyden and Algie Wells.

The Commission met with representatives of the Pennsylvania Power & Light Company--J. K. Busby (President), C. A. Carpenter (Vice President), H. J. West (Manager, Power Supply) and J. F. West, Jr. (Atomic Power Engineer). Their cost of

power, now 6.5 mil/KWH, in a few years 4.4 mils, means they have no interest in nuclear power at present.

From 4:30 to 5:45 p.m. I attended a meeting of the Principals in the Secretary of State's Conference Room. Present were: Foster, Rusk, Haworth, McCone, Taylor, McNamara, Nitze, Wilson, Kaysen, Wiesner, Keeny, Chayes, Kavanagh, Kelly and others.

Foster opened the meeting, saying there would be two questions for discussion: 1. the status of the test ban treaty as a whole in view of the coming meeting in Moscow, and 2. the AEC subject of Plowshare.

Rusk pointed out that with respect to the first of these, no great hopes were being entertained, but it was a matter of wanting to make the greatest possible effort; we are under no illusions as to any change in the Soviet position.

McNamara said he viewed this matter with mixed feelings. He said that the Stennis Committee hearings had changed matters very substantially. Because of this a debate on the treaty in public was in prospect and this has great disadvantages. The Joint Chiefs are going to testify and this will imply an administrative argument over the treaty. This suggests that there shouldn't be a publicly approved government detailed position but just a position that says we are in favor of a treaty with adequate inspection.

Taylor said that the Chiefs feel that valuable results can be obtained from clandestine testing and, therefore, the treaty is not in the best interests of the country. Thus, it is better to view the present draft as only one possibility. Foster expressed surprise at this position and said he thought all aspects had been explored and he thought, frankly, this present position was just one of delaying tactics. McNamara disagreed and said he thought long technical discussions were required in order to resolve the different views of scientists. Fisher again disagreed and said the April 1st documents had already been tabled and he didn't think there were any problems remaining other than the Plowshare one. McNamara said we must avoid arguing in front of Congress. McCone said he hadn't heard the Joint Chiefs agree to the present draft treaty at any meeting.

McNamara said he supports the present draft treaty and feels the U.S. holds the lead and feels a test ban would help us. However, the AEC Laboratory Directors have made damaging testimony before the Joint Committee and the Joint Chiefs, therefore, really can't take any other position.

Rusk asked if the Joint Chiefs were, therefore, not supporting the President's position and should they not as a matter of law. McNamara said this is a complicated technical problem and the law enables the Joint Chiefs to give their personal opinions.

Fisher said he thought the general decision had been made at the February 18th White House meeting as supported by the April 1st tabled document, and he wanted to know if we are withdrawing from this position. McNamara said we are not withdrawing and went on to say that Henderson's testimony that our warheads can't penetrate to Russian targets today is inaccurate and must be refuted on the record. He also said that an even worse complication is the Twinning Report which has now been requested by Stennis.

Rusk said we are faced with the problem that Harriman is going to Moscow to discuss the test ban next month, and we need a position. McNamara said he hoped Harriman won't publicly say he is supporting this particular draft treaty. He said he hopes that we won't resurface this draft treaty before July 15th. He wants to get **632** together with Wiesner next week to draw together the divergent views of the various

scientists. Wiesner said this perhaps could be done by updating the reports resulting from previous meetings of scientists. Kaysen summarized the matter by saying the problem then would be to avoid surfacing the present draft treaty and to avoid a public disclosure of this particular position in connection with Harriman's discussions in Moscow next month.

We then went on to discuss the Plowshare program. I again pointed out that essentially no progress could be made on Plowshare if the devices must be disclosed. The discussion revolved, in large measure, around the weapons progress that could be made under the guise of Plowshare experiments if weapons were not disclosed. Progress could be made despite the fact that no diagnostic instruments would be allowed due to the fact that debris analysis could be made. McNamara and Nitze supported the view that this progress would be minimal compared with progress in clandestine testing, while Wiesner felt that great progress could be made in this manner. Rusk was particularly concerned with what could be learned by disclosing the weapon and I said I would arrange for him to have an expert briefing on this matter. It was pointed out that small fission weapons are now unacceptable for Plowshare despite the fact they were thought to be adequate some years ago. Such weapons produce an unacceptable amount of radioactive fallout and are not economic compared with conventional explosives.

The conclusion was that this matter would be left somewhat open and reviewed at the proper time as the test ban talks proceed.

Saturday, June 15, 1963 - D.C.

I worked in the office until 3 p.m.

I consulted with Roamans, the Prentice Hall editor who is handling the publisher's work on my book, Man-Made Transuranium Elements. We settled all the remaining questions and the book should appear in August.

Helen and I had a picnic dinner at the Fritsches' in Damascus in honor of the Victor Schmidts who are leaving on June 28th. The Chris Hendersons, Howard Browns and Cecil Kings were also there.

Sunday, June 16, 1963

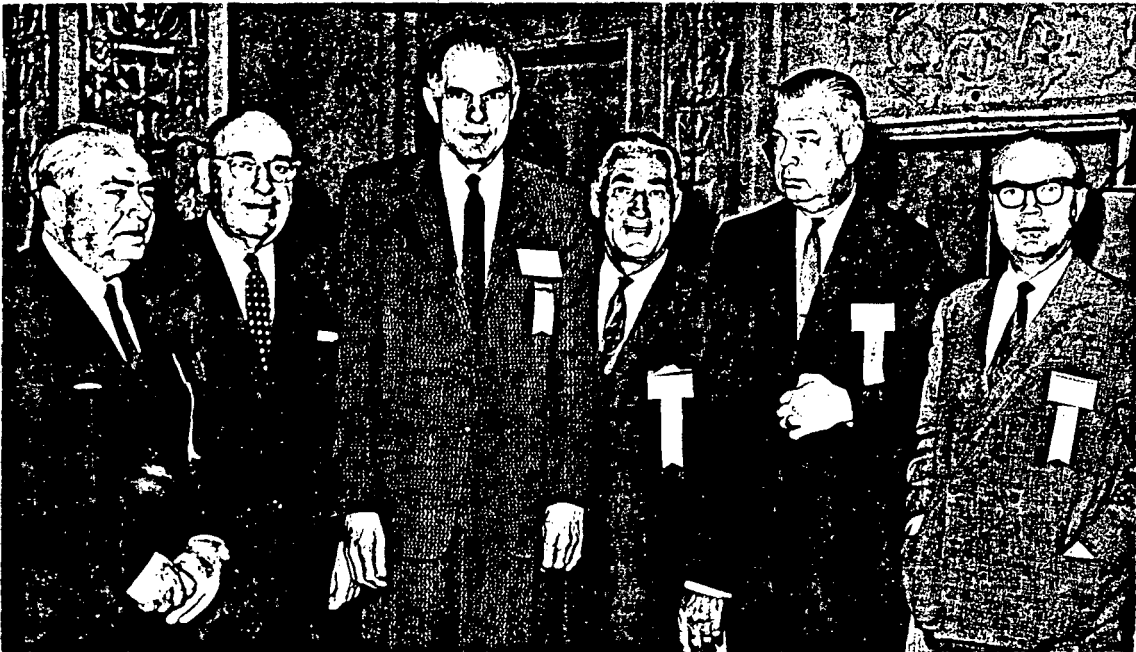
I worked on my speech, "The Promise of the Atom," that I will give at the 30th Annual Svenskarnas Dag in Minneapolis on June 23rd, and on the speech I will give at the University of Colorado on June 28th, "On the Interdependence of National Laboratories and Universities ."

I also read journals.

Monday, June 17, 1963 - D.C.

I spoke at a breakfast meeting of the 46th Anniversary Convention of the National Coal Association in the Grand Ballroom of the Mayflower Hotel on "Conventional and Nuclear Fuel - Competitors or Partners," at the invitation of Association President Stephen F. Dunn. A question period followed. My talk was well received despite some warnings that it might not be.

From 11 a.m. to 12 noon, Jim Ramey, Algie Wells and I briefed Senator Pastore and John Conway on the pending agreement with India for safeguards on the Tarapur reactor. Their fears were somewhat allayed.



National Coal Association 46th Anniversary Convention
Washington, D.C.
June 17, 1963

L to R: F. Stillman Elfred (Peabody Coal Company), Commissioner Robert E. Wilson (USAEC), Seaborg, R. E. Salvati (Island Creek Coal Company), H. Vernon Fritchman (Rochester & Pittsburgh Coal Company), and A. C. J. Rottler (West European Coal Producers)

I attended a luncheon of the National Coal Association at the Mayflower Hotel, where the speaker, Senator Jennings Randolph (West Virginia), attacked governmental subsidies to nuclear power.

At 3:25 p.m. I presided over Information Meeting 283 (notes attached).

Helen flew to Norfolk today to visit and to rent a house at Virginia Beach for our July vacation.

Tuesday, June 18, 1963 - D.C.

At 9:30 a.m. I gave a summary of my Russian trip and my observations and conclusions at a PSAC meeting.

At 11:30 a.m. Bundy, Kaysen, Chuck Johnson, Spurgeon Keeny, Jerry Johnson, Luedecke and I met in Bundy's office to discuss the test program in Nevada in view of the President's American University speech. We tentatively decided to postpone THUMBELINA (a LASL shot), scheduled for late June, until after September 1st. The preparations at Johnston Island can go forward. I briefed the group on the importance and expected repercussion of the decision to cut fissionable material production. A task force, at the working level, will make a presentation to Bundy, McNamara, Gordon and me before it is presented to the President. (Minutes of meeting attached).

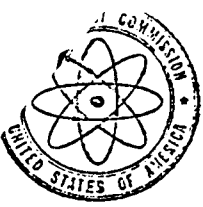
I had lunch with John McCone, two of his assistants, and Luedecke at CIA. We discussed the Russian trip.

At 2:30 p.m. the Commission met with representatives of the Potomac Electric Power Company--R.R. Dunn (President), G. Bissett (Vice President) and J. O'Hanlan (in charge of nuclear power)--to discuss their interest in nuclear power plants. They might have some interest after 1965 and also might have some interest in desalination. The present cost of 30¢ per million BTU may go down to 25¢ by 1970.

The subcommittee of the Joint Committee on Atomic Energy marked up our authorization bill, eliminating the modified third round program and recommending that JCAE have additional power so they can pass on the operating budget.

At 3:45 Wiesner called and said he expected to see Bhabha at the Indian Embassy dinner tonight and asked if there were anything new he should know about the Tarapur project. I told him there was a change; that we talked to Pastore yesterday, and by now the new safeguards regulations extending to higher power levels should have been passed at the IAEA Board of Governors meeting in Vienna. Pastore would like for us to see whether now, since we can confront him with this, Bhabha would agree in principle to the bilateral safeguards and not disagree with these safeguards in a trilateral agreement. We agreed to approach Bhabha on this. I told Jerry, if Bhabha pushes too hard and tries to get around these things, the whole thing could fall through. Jerry said that Bhabha has to appreciate that we have a Congressional problem on our hands.

I called Kermit Gordon, Director, Bureau of Budget, at 5:40 p.m. and told him we have just learned that the subcommittee of the JCAE has met on the question of broader power of authorization and they are recommending to the Joint Committee that they amend their authorization bill to take care of this. The full Committee will probably meet on this on Thursday, June 20th. He said he has been thinking of seeing the President to ask him to call Pastore and tell him this is something we really don't want. He said in our case, he thinks the justification for this is extremely weak as they are protected by existing legislation. He said he would try to see the President and call me.



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

UNCL. BY DOE
NOV 88

COPY NO. 15
June 17, 1963

INFORMATION MEETING 283

Monday, June 17, 3:25 p.m. - Chairman's Conference Room, D. C. Office

1. Chairman's Meeting with the President to discuss U. S. S. R. Trip

The Chairman said during his meeting with the President he had mentioned the forthcoming decisions on SNM production and the President's June 12 speech and its relationship to AEC work at Johnston Island. The Chairman gave Mr. Bundy a memorandum on Friday on the latter subject, which is to be discussed with Mr. Bundy at 11:30 a.m. tomorrow. The General Manager discussed briefly the problem of proposals for dredging and the recruiting of contractor people which would follow.

2. 1965 Stockpile

The Chairman said this matter will be discussed with Mr. Bundy tomorrow. The General Manager will discuss the numbers problem with Dr. Gerald Johnson prior to the meeting.

3. Chairman's Discussion with Secretary McNamara re AEC-DOD Joint Procedure for Long Range Weapons and Production Planning

The Chairman said during his recent discussion with the Secretary, he requested a DOE briefing on weapons planning and Secretary McNamara said it could be arranged. (Betts)

4. Meeting of The Principals, Friday, June 14

The Chairman reported on the discussion of positions on (a) test ban treaty, and (b) FLOWSHARE treaty article. Secretary Rusk requested a briefing on FLOWSHARE which will be arranged at an early date. (Brown/Kelly)

5. Meeting with Senator Pastore Today re Tarapur Reactor Project

The Chairman said Commissioner Ramey and Mr. Wells had accompanied him to discuss this matter with Senator Pastore this morning. AEC's next step is to determine whether Mr. Bhabha will accept in general the safeguards provisions now under discussion at the IAEA. Senator Pastore requested discussion with the Joint Committee in executive session later this week or early next week. (Ink/Wells)

6. Senator Humphrey's Invitation for the Chairman to Testify on the Technological Resources of the U. S. and Their Relationship to the U. S. Economy

The Chairman noted Senator Humphrey's invitation to testify at 11:00 a. m. on Thursday, and suggested an alternative time be requested. Testimony for his use is to be prepared. (Brown/Ink)

7. Knapp Report on Iodine Levels

In response to the Chairman's comment, the General Manager said the report is in review for recommendations to the Commission.

8. Letter from John McCone, CIA, re Personnel
The Chairman requested consideration of the request. (GM)

9. Intelligence Report on French Test

10. Status of Project Rufus

In response to Dr. Wilson's comments, the General Manager reported there will be no further surveys pending a decision on the project. Dr. Wilson indicated he favored the proposed island site rather than Alaska if the project is approved.

11. Comments on Jersey Proposal for Ozone Manufacture

Dr. Wilson commented that he considered the cost estimates too low.

12. KIWI-B-4A Cold Flow Tests

Dr. Wilson said he thought the May 15 test substantiated the need to develop core element bundles.

13. Panama Canal Company Interest in Small Nuclear Power Plant (AEC 6464)

Dr. Wilson commented on the distortion in the economic analysis.

14. U. S. /U. K. Stocktake Meeting (AEC 988/147)

Dr. Wilson's report on the meeting was noted.

15. NUCLEONICS Report on Canadian Government Receipt of Heavy Water Proposals

16. Mr. Bokum's, United Nuclear, Statement to Joint Committee re Toll Processing

Dr. Wilson discussed briefly Mr. Bokum's statement to the Joint Committee members and the Commissioners agreed it would be necessary in AEC testimony to discuss the pros and cons of Mr. Bokum's statement re sale of domestic ore to foreign users.

17. Commissioners Palfrey's and Ramey's Meeting with Joint Committee Staff to Discuss M.L.F

Mr. Palfrey reported briefly on the discussion with the Joint Committee staff.

18. Cooperation with Italy

Mr. Palfrey said he would transmit to the State Department comments contained in the General Manager's memorandum.

19. Cooperation with the French on Weapons Safety

Mr. Ramey noted his letter to Secretary Tyler on this subject and said he understood the State Department will respond affirmatively.

20. Key West Saline Water Project

Mr. Ramey reported that as a result of the recent meeting with Undersecretary Carr, agreement has been reached on an invitation for an architect-engineer study. The General Manager reported staff is developing criteria.

21. AEC Managers' Meeting June 19 and 20, Albuquerque

In response to Mr. Ramey's reference to his memorandum of June 14 to the Commissioners - Subject: AEC Policy on Maintenance of Competitive Industrial Base in Atomic Power and Related Industries - the General Manager said he planned to discuss (a) new contract policy and how it can be properly carried out (the General Manager's recommendations on the contractor selection system as discussed in paragraph (b), page 1, of Mr. Ramey's memorandum are contained in a paper for issuance today or tomorrow) (b) employment of Negroes, and (c) production planning.

22. Southwestern Experimental Fast Oxide Reactor Project

The Commissioners discussed briefly the June 13 memorandum on this subject and requested recommendations on establishment of criteria for evaluation of the proposal. (Vinciguerra)

23. Dr. Haworth's Stennis Committee Testimony

Dr. Haworth noted he has circulated a new draft.

24. Status of SNAP Study

25. AEC 101/110 - Proposed Barter Arrangement for South African Uranium

DATE: 10/11/54

To be scheduled for consideration on Wednesday. (Secy)

EXPECTED DATE

26. Evaluation of Air Force Snapshot Program

DATE: 10/11/54

The General Manager discussed his concern regarding the Aeronautics and Astronautics Coordinating Board evaluation of this program. He will discuss the problem with Harold Brown tomorrow.

27. Armed Services Committee Hearing Wednesday Morning re Camp Pendleton Site

Mr. Hennessey reported he and staff will attend.

28. John Finney Article re AEC Headquarters Relocation

The Commissioners suggested that the response to question 5 be general in nature and suggest that the matter has been explored without success. The draft letter to Mr. Finney is to be circulated for the Commissioners' review. (Ink)

PRESENT

Dr. Seaborg General Luedcke
Dr. Wilson Mr. Hennessey
Dr. Haworth Mr. Brown*
Mr. Palfrey Mr. Ink
Mr. Ramey Mr. Henderson*
 Mr. McCool

*Partial Attendance

DISTRIBUTION

Commissioners
General Manager
General Counsel
Secretary

W. B. McCool
Secretary

901976

OFFICE DIARY
GLENN T. SEABORG
Ch USAEC, 1981-72
FOLDER-PAGE <u>30 86</u>

June 19, 1963

SEC.

MEMORANDUM OF DECISIONS AT THE MEETING
ON TEST PREPARATIONS, ETC., ON JUNE 18, 1963

1. Discussed the President's wish, expressed to Chairman Seaborg, that he did not want any activities undertaken prior to, or during, the forthcoming talks in Moscow in July, the disclosure of which would prejudice the possible success of those negotiations or adversely affect the posture of the United States. Agreed that the President's injunction extended to certain other activities in addition to the test preparations and that such activities should also be reviewed.

2. Noted that certain underground events now scheduled to take place before September 1 are of a size and type that would probably draw the attention of and probably cause a reaction by the Soviets.

3. Tentatively agreed that no event with an estimated yield of 50 KT or over should be scheduled prior to September 1. The Atomic Energy Commission will immediately review the impact of this decision on the laboratories and report to the White House what problems this decision would raise.

4. Agreed that the proposed pre-event and post-event PLOW-SHARE announcements now pending with the Press Secretary should not be issued. The regular routine short-form announcement will be issued by the AEC following the event. *Keen!*

5. Reviewed the memorandum for Chairman Seaborg, dated June 13, 1963, prepared by the AEC General Manager, on the subject of "Overseas Atmospheric Test Preparations," and agreed that, by careful management, the scheduled work as set forth in the memorandum can continue with only a small increase in the present low-noise level through July, and that no real problem is anticipated until late August.

CLASSIFICATION CANCELLED *
BY AUTHORITY OF DOE/OC
In Diag 2/27/89
Mr. Nsc Grabaske TO
DOE, OCFB Siebert
dated 2/19/89
John 2/27/89

-2-

6. Agreed that the naval airport improvement program provided an adequate cover story for the improvements at Johnston Island.

7. Agreed that the site preparation for the SCHOONER event could go ahead without causing any difficulty even though the SCHOONER event itself has not been authorized. *By 10/6/64?*

8. Noted that the major event tentatively planned to take place in Alaska is under restraint and that this matter is under review in the Department of Defense pending the development of a recommendation for the White House. Meanwhile, appropriate personnel of the AEC, the Interior Department and the Army Corps of Engineers should be notified that no approval exists for this event and there should be no public discussion of or field preparations for this event.

9. Discussed the problem of getting a tentative decision on the 1965 weapons stockpile and agreed that a meeting should be held this week in an effort to reach a procedural solution.

PRESENT:

McGeorge Bundy, Special Assistant to the President
for National Security Affairs
Carl Kayson, Deputy Special Assistant to the President
for National Security Affairs
Glenn T. Seaborg, Chairman, Atomic Energy Commission ✓
Gen. A. P. Luedcke, General Manager, Atomic Energy
Commission
Gerald Johnson, Assistant to the Secretary of Defense
(Atomic Energy)
Spurgeon Keony, Office of Science and Technology
Charles E. Johnson, National Security Council

I called Gordon a few minutes later and left the message with his secretary that some of the members of the JCAE have released their markup on the authorization bill to the press and I thought Kermit should know this if he is to see the President.

Kermit called back at 6:20 p.m. and said he had just seen the President; while the President is sympathetic, he is reluctant to call Pastore himself. The President asked Kermit to pass this on to Larry O'Brien and ask him to call Pastore (which Kermit will do this evening or tomorrow morning). Kermit asked what I thought of the idea of bargaining with Pastore on the basis of producing a bill for him on a single administrator if he wishes our support on the authorization bill. I told him this was all right with me, but he might not get any cooperation from Pastore. I suggested that he pass this on to O'Brien and let him use his judgment. Kermit will call me.

Helen and I attended the dinner at the Indian Embassy given by the Indian Ambassador and Mrs. Braj Kumar Nehru in honor of Dr. Homi Bhabha, Chairman, Indian AEC.

Wednesday, June 19, 1963 - Germantown

At 9:45 a.m. I presided over Information Meeting 284 (notes attached). We also discussed a letter from Kermit Gordon about a study of administration and policy on scientific research (copy attached).

At 11:25 a.m. I presided over Commission Meeting 1941. The Commission 1. approved the Presidential directive for FY 1964 SNM Production and Utilization Program, 2. approved atmospheric tests, as revised, subject to concurrence by Commissioner Haworth. The Commission requested the draft letter to Dr. Wiesner be revised to provide greater flexibility and clearly indicate the tentative nature of the specific tests in the program being proposed for consideration. Commissioner Wilson requested paragraph two of the draft letter revised in accordance with his suggestion about verification and proof testing. Other revisions are to be made in paragraph five of the AEC 1130/4 and in paragraph nine of the draft letter, as discussed, 3. continuance of access permit program was approved. The Commissioners noted a discussion paper on the Gas Centrifuge Matter which will be presented at an early date.

I presented a 20-year service pin to Miss Cecil in the presence of the Chairman's office staff.

Dr. Bhabha came in around noon and we negotiated on the Tarapur safeguards. I then hosted a luncheon for him in the executive dining room. Others attending included C. Krishnamoorthi (Economic Minister, Indian Embassy), A. Ghosh (First Secretary, Indian Embassy), Commissioners Wilson, Ramey and Palfrey, Phillips Talbot, Ragnar Rollefson, Edwin M. Kretzman (State), Algie Wells, Howard Brown and Joe Hennessey. We told Bhabha that he must agree to the safeguards statement now being adopted by the IAEA Board of Governors. He will let us know his decision.

From 3:45 p.m. to 5 p.m. I gave a talk on my trip to the USSR to the professional staff.

Dr. W. O. Milligan phoned at 5:20 p.m. to say he is leaving Rice University to go to T.C.U. as Vice Chancellor and as President of their new Research Foundation at Fort Worth, Texas. As yet he does not know if this will affect his association with the Welch Foundation.



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

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UNCL. BY DOE
NOV 86

CCPY NO. 15
June 19, 1963

INFORMATION MEETING 284

Wednesday, June 19, 1963, 9:45 a.m., Room A-457, Germantown Office

1. PLOWSHARE Project (California-Mojave Cut)

Dr. Wilson noted the interest of the Highway Department and the Santa Fe Railroad.

2. Chairman's Speech at National Coal Association Meeting, Monday, June 17

3. Armed Services Committee Hearings on Camp Pendleton Site Bill

The Chairman noted Dr. Haworth's attendance and Mr. Ramey said Congressman Holifield had requested a letter of endorsement for the record. (Ink)

✓ 4. Kermit Gordon's, BOB, June 15 Letter Re Study of Administration and Policy on Scientific Research

The Chairman noted receipt of the letter establishing a study of this matter and the General Manager said staff will review for recommendations on a reply. (English)

5. History of Nuclear Submarine Program

In response to the Chairman's query as to the status of the 1962 proposal, the General Manager said he would review the matter for discussion with the Commission.

6. Chairman's Testimony for Senator Humphrey's Committee Hearings on the Technological Resources of the United States

The Chairman noted that the Hearings have been postponed and Mr. Ink said proposed testimony is in preparation.

7. Chairman's and General Manager's Luncheon Yesterday with John McCone, CIA, to Discuss U.S.S.R. Trip

8. Chairman's June 27 Visit to Boulder, Colorado

The Chairman said he hoped to visit NORAD during his trip to Boulder and possibly the Coors plant. Congressman Aspinall has been invited to accompany him. (Brown)

9. Commissioners' June 25 Visit to the New York Air Command (McGuire Air Force Base)

The Chairman noted plans to visit McGuire and said if the meeting with the Joint Committee to discuss the Tarapur reactor project is scheduled for that day, it will be necessary to reschedule the visit to McGuire. (Brown-Sacy)

10. Letter to Kermit Gordon, BOB, re Proposed Nevada Community

The Chairman said he would sign the letter reiterating AEC support of the community after the Commissioners' review and confirmation by the General Manager of the continued support by NASA. (Brown)

11. Historical Paper on 1972 Production Goals

The Chairman referred to his discussion of this matter at Information Meeting 282 and the Commissioners suggested the Division of Public Information assist the Division of Production in preparation of the paper. Additionally, it was suggested that the AEC Historian assist if it is considered desirable and the Chairman requested the Commissioners be kept informed of the progress on the paper. Mr. Ramey commented on the importance of including the Congressional aspects. (Quinn-Clark)

12. Discussions with Admiral Rickover

The Chairman discussed briefly his and Mr. Ramey's conversations with Admiral Rickover regarding personnel assignments.

13. Status of DOD Study re Nuclear Surface Navy

Noted.

14. Status of Energy Resources Study

Noted.

✓ 15. Proposed Letter to Vice President Johnson re Request to Study Test Results

The Chairman requested a determination of the extent of the Vice President's interest prior to transmittal of the letter. (Brown)

16. Chairman's Meeting with Mr. Bundy Yesterday

The Chairman noted that agreement has been reached on the following matters.

- a. SCHOONER Event.- Proceed but in a low key.
- b. DRIBBLE Event - Proceed and plan to announce at proper time.
- c. KENNEBEC Event (pre-COACH shot) - Proceed with no pre-announcement and a later determination as to how to announce after the event.
- d. Construction at Johnston Island. - Proceed, but in response to queries describe the work as general DOD operations.
- e. THUMBELINA Event - To be postponed until after September 1.
- f. 1965 Stockpile - A meeting is to be held with Mr. Bundy next week looking to the possibility of interim approval.
- g. 1972 Production Goals - A staff task force is to be established to present the problem to Mr. Bundy, the Secretary of Defense, the Chairman and Kermit Gordon prior to presentation to the President. (Betts-Kelly-Baranowski-Clark)

17. General Manager's Report on Joint Committee Markup of 1964 Authorization Bill.

18. Proposed Letter to Senator Anderson re Meson "factory" at Los Alamos

The Chairman requested the Commissioners review prior to his signature. (Brown)

19. July 12 BOB Preview of 1965 Budget

In response to the General Manager's request, the Chairman suggested the preview be scheduled as early in the day as practicable.

20. Chairman's Discussion with Kermit Gordon, BOB, re Joint Committee Proposed Authorization Language

21. Department of Commerce Selection of Contractor for Operation of N. S. SAVANNAH

The General Manager reported Secretary Hodges' position re AEC participation in the selection of the contractor and the Commissioners noted the importance of assurance to the Commission of the nuclear safety of the ship under any proposed operator. An appropriate letter to Secretary Hodges is to be prepared for the Chairman's signature. (Pittman)

22. Commissioner Haworth's Testimony for the Stennis Committee.

Dr. Wilson suggested and the Commissioners agreed it would be desirable for the Chairman to introduce Dr. Haworth's testimony with emphasis on its sensitivity. (Brown)

PRESENT

Dr. Seaborg
Dr. Wilson
Mr. Palfrey
Mr. Ramey

General Luedecke
Mr. Ink
Mr. Ferguson
Mr. Brown
Mr. McCool

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General Manager
General Counsel
Secretary

W. B. McCool
Secretary

EXECUTIVE OFFICE OF THE PRESIDENT

BUREAU OF THE BUDGET

WASHINGTON 25, D.C.

JUN 15 1963

ENCL. BY DOZ
NOV 86

Honorable Glenn T. Seaborg
Chairman
Atomic Energy Commission
Washington 25, D. C.

Dear Mr. Chairman:

The rapid growth of Federal grants and contracts for support of scientific research has steadily increased and has complicated agency administrative responsibilities with respect to these programs. This growth likewise has given added emphasis to the necessity for universities and other recipients of Federal grants to improve their administrative procedures. As a consequence, the administration of Federal grants is now a subject of major concern within the executive branch and is drawing much attention from Congressional committees.

In light of these concerns, the Bureau of the Budget is initiating a survey to provide comparative data -- and an analysis and evaluation of this data -- on the administration of research grants and grant-type contracts by Federal agencies and by a selected number of private foundations making grants to colleges and universities for research. The survey will provide information on the management of grants and contracts received from Government and private sources by a selected number of recipient universities.

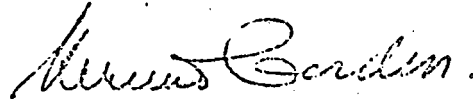
The Federal agencies to be studied include the National Science Foundation, the Department of Health, Education and Welfare, the Department of Defense, National Aeronautics and Space Administration and Atomic Energy Commission, which fund all but a very minor portion of Federal grants and grant-type contracts.

The Bureau will study the organization, policies, and the administrative and technical procedures employed to determine differences among the agencies and foundations selected and to identify their problems. From the information collected from all sources -- Federal, universities and foundations -- the Bureau expects to develop guidelines for grant administration having Government-wide applicability.

It would be appreciated if your Agency would designate an individual to serve as the point of contact with the Bureau of the Budget during the course of the study. Responsibility within the Bureau of the Budget has been assigned to the Office of Management and Organization and Mr. J. Lee Westrate of that office will act as project supervisor.

It is expected that an early meeting will be held with agency representatives to discuss in detail the specific questions to be considered in the study, the time schedule, and detailed procedures for developing necessary data. Your cooperation in the conduct of the study and an early reply will be appreciated.

Sincerely,

A handwritten signature in cursive script, appearing to read "Kermit Gordon".

KERMIT GORDON
Director



Presentation of 20-Year Service Pin to Mildred Cecil, Secretary
Germantown Headquarters, June 19, 1963

Thursday, June 20, 1963 - D.C.

Gerald Tape and I had our confirmation hearings before the JCAE this morning. Senators Pastore and Curtis and Congressmen Holifield and Price were present. It was primarily a laudatory session and went quite well.

At 12:05 p.m. Kaysen called to say that there will be a meeting with the President at 11:30 a.m. tomorrow on the Harriman mission to Moscow on the test ban treaty. He asked that Dr. Haworth and I attend.

I had lunch at the Cosmos Club with President Thomas Carroll and Vice President John Brown of the George Washington University. We discussed the possibility of the AEC's participating in a conference on the humanities and sciences which probably will be held in Warrenton, Virginia. We also discussed the possibility of holding a meeting (similar to the one held last fall) with perhaps Reston as the focal point, with Webb, Haworth and Keppel in attendance, to discuss the possible buildup of sciences at George Washington University.

I attended an MLC meeting at the Pentagon where we discussed the tactical weapons study and the atmospheric test plans.

At 5 p.m. Roger Batzel, John Kelly and I saw Dean Rusk in his office and briefed him on problems connected with revealing Plowshare devices.

Our entire family had dinner with the Vic Schmidts at the Chevy Chase Club.

I sent a letter to Manson Benedict (copy attached) in response to his report of the 84th GAC meeting.

Friday, June 21, 1963 - D.C.

From 9:30 a.m. to 11:20 a.m. I met with Wiesner, Foster, Brown, Haworth, Jerry Johnson, Keeny and others (in Wiesner's office) to discuss the proposed shots for the 1964 atmospheric test series.

From 11:35 a.m. to 12:15 p.m. I attended a meeting in the Cabinet Room of the White House.

Removed pending review by other agencies

JUN 20 1963

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Dear Hanson:

Thank you for your letter of April 27, 1963, reporting on the 84th meeting of the General Advisory Committee. We have given careful attention to the items in your letter and have the following comments:

a. High Energy Physics

We appreciate the participation by the GAC in the establishment and deliberations of the GAC-PSAC Panel on High-Energy Accelerator Physics, and the attention and consideration that the GAC has given to the Report issued by the Panel. We too feel that the Report is an excellent statement of the importance of advancing U.S. capabilities for research in high-energy physics.

The Commission plans to discuss at an early date the recommendations of the Panel Report, their possible implementation, and several alternate courses of action, so that we may contribute to the determination of the overall position that the Executive Branch will take on the future U.S. program in high-energy physics. This position will undoubtedly be taken in full consideration of the effect that the recommended program might have on other areas of basic research. We would be pleased to have the further thoughts of the GAC on this matter, as well as on any other factors that should be taken into account in considering our future high-energy physics programs. In this regard, we note with interest that you intend to discuss at your 85th meeting the value of high-energy physics research.

b. Gaseous Diffusion Plant Operations

We would be glad to schedule a discussion of the gaseous diffusion plant operations with the Committee during your July meeting. We will keep the Committee informed of any significant developments in this area.

c. Educational Matters

The Division of Nuclear Education and Training is actively working to develop additional factual information on educational activities at our major sites. Results of this study are expected to be available towards the end of the year.

d. Project Shared

We appreciate the continued interest of the GAC in the CTR program. We will keep you informed of changes and progress in the program, by way of the Monthly Report and oral presentation at your meetings, when desired.

e. Large Reactors for Saline Water Conversion

Your comments on your review of the work on large reactors for saline water conversion were quite interesting and in general agreement with the observations and thinking of the AEC. We agree that work should continue on scaling nuclear reactors to larger sizes, but in accord with established policy and in a way so as not to project the Commission into controversial political areas. We most heartily agree that this can best be accomplished by presenting information on the practicality and cost of using nuclear reactors for saline water conversion to potential customers in such a way that they can make their own judgment concerning proceeding with such ventures.

In order to apprise you of the progress of the AEC and the Interagency Sub-committee Studies in this field we plan to provide you with a brief written status report prior to your coming meeting.

f. Third Geneva Conference

We have noted the GAC recommendations concerning the size and scope of the Third Geneva Conference. With respect to your remarks concerning an all-out competitive conference, we believe that we are not in a position at this time to influence the convening of such a conference, even though the concept has appeal to us. The AEC and the Department of State have been faced, since the early planning stages, with the problem of

advocating a broad conference only as far as is consistent with the ability of the U.N. to bear the costs; and the U.N. has consistently indicated that its limited funds will not permit financing a large conference.

With respect to your recommendation that the conference be limited to the topic of nuclear power alone, it is our judgment that, in view of developments to date, it will be very close to a topical conference with the principal theme being nuclear power. It would be difficult formally to identify this topic as the only one because the primary concept and intent for a Geneva-type conference is to review progress in nuclear energy broadly so that each Member Nation of the U.N. can participate and derive some benefit regardless of its state of development.

g. Reactor Subcommittee: 65th CAC Meeting

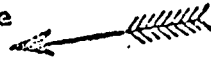
We understand that appropriate arrangements are being made by AEC and ANL staff with respect to the Agenda for your next meeting, and by the AEC Reactor Development staff with respect to your Reactor Subcommittee visits.

Sincerely yours,

(Signed) Glenn T. Seaborg

Chairman

Dr. Hanson Benedict, Chairman
General Advisory Committee to the
U. S. Atomic Energy Commission

- no/ccc: Addressee
- 2bcc: Chairman 
- 2bcc: Secretary
- 2bcc: GH
- bcc: AGMRD File

AGMRD GH CHAIRMAN

SGEnglish/grj

6/19/63

Removed pending review by other agencies

I had lunch with Jerry Luntz (Editor and Publisher, Nucleonics), Joseph H. Allen (Vice President, McGraw-Hill) and Ed Brunenkant at the Hay Adams Hotel to discuss problems caused by AEC competition in review type publications.

At 3:25 p.m. I met with Admiral Rickover, who said that he received a letter from Secretary Korth late last week saying that he could stay on in charge of Naval Reactors as a civilian, provided he had an assigned deputy. Rickover told the secretary that the condition of an assigned deputy was not satisfactory. He saw Secretary Korth again this morning and the Secretary said he could stay on in his present position but with indefinite tenure. Rickover indicated to the Secretary that this is not satisfactory. Rickover told me that the JCAE may hold executive session hearings on this matter next week. He indicated that he needs my help for the next step, whatever that may be.

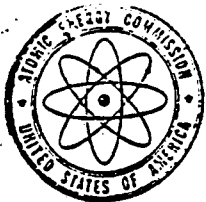
Joe Hennessey and Roland Anderson showed me evidence that leads them to think that John Dunning has faked a carbon copy of a letter dated September 18, 1940, to establish claims for compensation for discoveries in connection with the barrier for gaseous diffusion separation of U-235; perhaps this is a misunderstanding.

At 4:40 p.m. I presided over Information Meeting 285 (notes attached).

Saturday, June 22, 1963 - D.C. - Minneapolis

I worked at the office until noon.

I called Scotty Reston and told him I had lunch with President Carroll and Vice President Brown of the George Washington University a few days ago and we discussed a follow-up luncheon to the one we had last year, probably including people like Jim Webb, Lee Haworth, Frank Keppel and some others, to map out some course of action on cooperation between government agencies and the University to build up



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June 21, 1963

INFORMATION MEETING 285

Friday, June 21, 1963, 4:40 p. m. - Chairman's Conference Room, D. C. Office

1. Joint Committee Hearings on Private Ownership scheduled for July 29, 30 and 31
2. Joint Committee Hearings on Los Angeles and Connecticut Yankee Proposals scheduled for July 8 and 11
3. Joint Committee Hearings on AEC Omnibus Bill Scheduled for July 15
4. Meeting, Tuesday, June 25, re 1965 Stockpile

The Chairman said the meeting is tentatively scheduled for 3:00 p. m. The Commissioners agreed the letter to the White House re the 1965 stockpile should be a joint AEC-DOD one with appropriate editorial revisions identifying the separate areas of responsibility. The letter is to be reviewed today for transmittal tomorrow. (Henderson-Ink)

5. June 20 PLOWSHARE Briefing of Secretary of State Rusk

The Chairman said he and Messrs. Baitzel and Kelly had briefed Secretary Rusk yesterday on the PLOWSHARE program. Mr. Palfrey suggested consideration of the desirability of a similar briefing for Department of State staff. (Henderson)

6. Meeting at the White House Today
7. Stennis Committee Hearings re Test Ban

Mr. Palfrey will determine with the Department of State whether it would be useful for the Chairman to attend.

8. Meeting Today to Discuss Test Planning (NSAM 238)

The Chairman reported briefly on the meeting with Dr. Wiesner and said no conclusions had been reached. The letter contained in AEC 1130/4, as revised, will be transmitted on the weekend.

9. Proposed Letter to Wisconsin Delegation re MURA Accelerator
The Chairman requested the Commissioners's review. (Henderson)
10. June 14 Letter From Dr. Harold Brown re DRIBBLE Program
In response to the Chairman's query, Mr. Ink said a staff paper is in preparation for early Commission consideration. (Ink)
11. Letter From Edward A. McDermott, Office of Emergency Planning, re Release of Mercury
The Chairman requested review and preparation of a reply.
12. Letters to Congress Transmitting AEC Omnibus Legislation
The Chairman said he would sign the letters today.
13. Chairman's Discussion with Jerry Luntz re Technical Journals
The Chairman said he had assured Mr. Luntz of the Commission's interest in the Nucleonics problem. The Commissioners requested a report on TIS issuances. (Brunenkant)
14. July 12 FY 65 Budget Preview at the Bureau of the Budget
The Chairman noted the Preview is scheduled for 2:00 p. m. and suggested the Commissioners, General Manager and appropriate staff plan to attend. The Commissioners requested a pre-meeting briefing. (Abbadessa)
15. Dr. Wilson's Report on Saline Water Study, and Production of Curium-244 and Plutonium-238
In response to Dr. Wilson's query, the Chairman noted the desirability of careful consideration. Mr. Ink said this matter will be reviewed for consideration in connection with the SNAP Study. (Pittman-Baranowski)
16. Chairman's Meeting with Admiral Rickover

17. Hanford Seminar on Iodine-131

Mr. Ink reported the Seminar went well.

18. FY 1964 AEC Authorization Bill

Mr. Ink said the Bill has been reported out to the House and Senate.

19. Panama Canal Company Request for an Engineering Study of Fossil Fuel and Nuclear Fuel Power Plants

20. McClellan Committee Investigator's Request for Information on NTS

21. Letter to Department of Justice re NFS Contract

Mr. Hennessey said the letter will be circulated for the Commissioners' review. (Hennessey)

22. General Advisory Committee Meeting at Argonne July 18, 19 and 20 and Joint GAC-ACBM Meeting July 20, Argonne

The Commissioners will inform the Secretary if they plan to attend. (Secy)

23. Agenda for Week of June 24

Approved, as revised.

PRESENT

Dr. Seaborg
Dr. Wilson
Mr. Palfrey
Mr. Ramey

Mr. Ink
Mr. Hennessey
Mr. Henderson
Mr. McCool

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Commissioners
General Manager
General Counsel
Secretary

W. B. McCool
Secretary

sciences there. I asked Scotty if he would act as the focal point. He said he would be glad to, but it would have to be early September as he plans to leave for Europe next Thursday and will not be back until August 15th. He said he will call President Carroll and try to set a date. He will call to let me know the result.

Pete, Lynne and I flew from Dulles to Minneapolis on Northwest Flight 77, leaving at 1:20 p.m. and arriving at 3:40 p.m. We were met by Iner Johnson (Chairman, Svenskarnas Dag), his son Roger and others. I held a press conference at the airport--Channel 9, ABC, Channel 4, CBS, and Minnesota Tribune (Nordling).

We visited the Minnesota State Capitol, where we were shown around by Mr. Donovan, the Secretary of State.

Pete, Lynne and I attended the Svenskarnas Dag dinner at Edina Cafeteria, where I gave a short talk in Swedish and English. We spent the night at the Ritz-Carlton Hotel.

Sunday, June 23, 1963 - Minneapolis - Washington

Roger Johnson (relative of Iner Johnson) drove Pete, Lynne and me to Northfield, where we visited Carlton and St. Olaf colleges. Then, escorted by John and Vera Williams, we visited the University of Minnesota.

I attended the 30th annual Svenskarnas Dag at Minnehaha Park, where I spoke on "The Promise of the Atom." It was held outdoors and a crowd of about 10,000 attended. I began my remarks in Swedish, after acknowledging the presence of Minnesota governor Karl F. Rölvaag, Iver Johnson, Miss Norell and Baron Nauckhoff.

The program was very interesting. Susan Johnson was chosen queen with runnerups Karen Carlson (alternate), Connie Holcomb, Sandra Landall and Virginia Bathre. I had my picture taken with Karen and Virginia. I received a huge Chippewa peace pipe. I met Bert Merling who is investigating the Kensington Runestone. Bert lives in Lindstrom, Minnesota. I also met Ann and Gordon Augustson, the sister and brother of O. B. Augustson.

We returned to Washington on Northwest flight 70, leaving at 6:30 p.m. and arriving at 10:30 p.m.

Dan, Evelyn and Shelley Wilkes had arrived to be our house guests.



Seaborg and Karen Carlson
(beauty contest runner-up)



L to R: Mrs. Rölvaag, Seaborg,
Governor Rölvaag, Peter Seaborg

Monday, June 24, 1963 - D.C.

At 9:45 a.m. I presided over Information Meeting 286 (notes attached).

I hosted a luncheon at the Mayflower Hotel for Sir Allan Hitchmann (UKAEA Minister for Finance and Administration). Others present included Joseph Stephenson (Scientific Attache, British Embassy), Commissioners Wilson and Palfrey, Ragnar Rollefson (State), Algie Wells, Myron Kratzer, Al Luedecke, Frank Pittman and Chris Henderson.

At 2:20 p.m. I presided over Commission Meeting 1943 (action summary attached). We discussed the difficult decision we have to make on which machines to build in high energy physics--the \$150 million MURA 12.5 Bev accelerator involves an especially difficult decision.

Commissioner Ramey, Carl Thomas (State), Algie Wells, Kratzer and I met with Bhabha, Aaran Ghosh and Maheshwar Dayal and reached a final agreement on Tarapur safeguards. They agreed that the IAEA proposed safeguards are consistent with the U.S.-Indian bilateral safeguards, which is the key question bothering Pastore, et al.

I met with John Dunning and his lawyer, Morton Adams, to discuss their award and patent claim case. This is too long and drawn out; it turns out that the carbon copy paper of alleged wrong date was, according to them, actually copied from a true 1940 carbon in 1952 or so on paper of 1952 vintage.

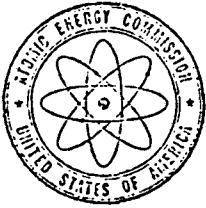
Lynne left for a vacation in the Pennsylvania mountains with her friend Nora Blaufarb and her family.

Tuesday, June 25, 1963 - D.C.

From 10 a.m. to 11:30 a.m. I met in executive session with the JCAE and reported to them on the status of our negotiations with India re Tarapur. Since the safeguards arrangements under IAEA have been satisfactorily negotiated, the hearing went very well. Pastore, originally a real skeptic, is now satisfied.

Wiesner called at 12:20 p.m. to "bat around" some ideas about the next steps to be taken in regard to Oppenheimer. He had Kistiakowsky talk to Oppenheimer to see how he felt about going through some review process, if we thought it would work out.

The idea would be to have some distinguished lawyers review the record and listen to outside people who wanted to help. Oppenheimer would be glad to have this done, but he doesn't want to do it just for sentimental reasons. Wiesner asked my opinion on an idea whereby the National Academy of Sciences would be asked for an extensive study in the ecological field on radiation effects, which would mean that the Academy would ask for Oppenheimer to handle it. Eventually, this would require asking AEC to approach the White House regarding setting up a review board for his case. I said that one of the disadvantages would be that the study would throw him into the middle of a difficult and emotional area, which might not be fair to him. I said I would think about this entire matter and see what suggestions I might be able to come up with. I mentioned the letter which I received from Al Crewe re MURA (copy of this and related correspondence attached), and said that I had sent Wiesner a copy of my letter to review on the subject this morning. Wiesner mentioned that we would be getting together on July 8th to discuss high energy physics.



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

JH
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NOV 86

COPY NO. _____
June 24, 1963

INFORMATION MEETING 286

9:45 a. m., Monday, June 24, 1963 - Chairman's Conference Room, D. C. Office

1. Chairman's June 23 Visit to Minneapolis
2. White House Meeting 3 p. m. Tuesday, to Discuss 1965 Stockpile

The Chairman said Dr. Gerald Johnson, MLC, is sending to the Commission today the proposed joint letter in anticipation of the discussion.

3. June 21 Navy Announcement re Retention of Admiral Rickover

The Commissioners discussed the Navy announcement and suggested the matter be discussed with Senator Pastore at tomorrow's meeting with the Joint Committee. (Henderson-Ink)

4. Commissioner Haworth's Testimony at Stennis Committee Hearing Tomorrow

5. Joint Committee Hearing Tomorrow re Tarapur Reactor Project

The Chairman said he and Commissioner Ramey would attend with the General Manager and Mr. Wells. A determination is to be made today as to Mr. Bhabha's position. (Wells)

6. Nuclear Science and Engineering Corporation, Pittsburgh. Request for Commission Review of Negotiations with Staff

The Chairman noted receipt of the background correspondence, and the Commissioners suggested the General Manager review the matter for the Commission. An interim response is to be prepared for the Chairman's signature. (Henderson-English-Trenmel)

7. Letter to Wisconsin Congressional Delegation re MURA Accelerator

The Commissioners requested revision of the letter. (Ink)

8. NSAM 250

The Chairman noted the directive is available for the Commissioners' review. (Henderson)

9. June 19 Report on Pending Contractual Matters

The Chairman noted receipt of the General Manager's report and the Commissioners discussed briefly the status of the fast reactor test facility (FARET) construction contract. It was agreed the General Manager should proceed, and the Chairman noted the usefulness of this type of report in flagging for the Commissioners contract matters of interest to them.

10. SNAP Study Briefing, Thursday, 10 a.m.

11. Cost Study on Curium-244

The Chairman requested information on the new cost estimates and suggested appropriate laboratory representatives be used as consultants. (Pittman-Baranowski)

12. Commissioners' Luncheon for Sir Alan Hitchman Today

13. Cooperation with the French re Weapons Safety

Commissioner Ramey reported the State Department had telephoned to say a letter affirming State support is in transit to the Commission.

14. General Manager's Report on Managers' Meeting, Albuquerque, June 20 and 21

The General Manager reported briefly on the matters taken up at the meeting, i. e., contract policy, integration, and production planning. With respect to the latter, the Commissioners agreed it would be desirable for Mr. Sapirie to discuss preliminarily with ERI, OVEC and TVA the possibility of power cuts.

15. Chairman's Discussion with Dr. Panofsky re Control Provisions of Stanford Accelerator Contract

The Chairman discussed briefly his conversations with Dr. Panofsky and the General Manager said he would review the matter and discuss it further with Dr. Panofsky.

PRESENT

Dr. Seaborg General Luddecke
Dr. Wilson Mr. Ink
Dr. Haworth Mr. Henderson
Mr. Palfrey Mr. McCool
Mr. Ramey

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Secretary

UNITED STATES GOVERNMENT

Memorandum

UNCL. BY DOE
NOV 86

TO : A. R. Luedecke, General Manager

DATE: June 25, 1963

Approved *A. R. Luedecke*

A. R. Luedecke

FROM : W. B. McCool, Secretary *W. B. McCool*Date *6/25/63*SUBJECT: ACTION SUMMARY OF MEETING 1943, MONDAY, JUNE 24, 1963, 2:20 P.M.,
ROOM 1113-B, D. C. OFFICE

SEGY:JCH

Commission Business1. AEC 603/63 - Accelerators for High Energy Physics

Discussed.

The Commission noted staff will provide a table showing a technical comparison of the proposed improved ZGS and the proposed MURA machine.
(McDaniel)

The Commission requested review of the low energy physics program vis-a-vis the proposed high energy physics program with special emphasis on the possible need for low BEV range machines.
(McDaniel)

You noted that a preliminary decision should be made prior to July 12, 1963, in order to include a proposed program in the FY 1965 budget estimates.

2. AEC 171/64 - AEC's Role in Civil Defense Research

Discussed.

The Commission requested a meeting be scheduled for the last week of July between the AEC, Mr. Stewart Pittman, and Dr. Wigner.
(Dunham/Secretary)

cc:
Commissioners

Argonne National Laboratory

OPERATED BY THE UNIVERSITY OF CHICAGO

9700 SOUTH CASS AVENUE
ARGONNE, ILLINOIS

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June 11, 1963

SSS 6/13/63

UNCL. BY DOE
NOV 86

Dr. Glenn T. Seaborg, Chairman
U. S. Atomic Energy Commission
Washington 25, D. C.

Dear Glenn:

I have just received my copy of the report of the Ramsey Panel, and while I believe that there are some very important conclusions of the Panel, some of the others disturb me deeply and I would like to present my views to you.

The great majority of the report is excellent. It contains one of the best expositions of the importance of high energy physics that I have read, and I and my colleagues utterly endorse the support which the Panel gives to high energy machines. In particular, we are very pleased with the stress which the Panel places on "Users' Groups," for, after all, the term itself and this kind of organization were invented here at Argonne.

The matter which disturbs me is the recommendation for the construction of the MURA machine because the Panel has apparently ignored the statement which Roger Hildebrand and I made before the Panel. I would therefore like to give you a brief summary of that statement.

The Panel recommends that the MURA machine be redesigned for 12.5 Bev, which is exactly the energy of the ZGS, and that the machine be constructed near Madison, which is only 150 miles away. I think you would agree that two machines at the same energy would be better either 1500 miles apart or 150 yards apart, the former to allow a completely different group of physicists to use it, or the latter to make use of common facilities. This, however, is not the main point.

If the machines are to be of the same energy and to be located fairly close together, it is naturally of interest to compare them closely, and I would like to make the following simple argument. If we were to take the same injector which is proposed for the MURA machine and install it on the ZGS, the intensity of the ZGS would increase because the space charge limit is increased. Lee Teng and I have calculated this and the position is summarized in the following Table, which was calculated for 10 Bev, although the situation is not much different for the 12.5 Bev.

Reply attached

June 11, 1954

	<u>MURA</u>	<u>ANL</u>	
Energy	10	10	Bev
Intensity	2×10^{14}	5×10^{13}	Protons/sec.
Duty Factor	1	0.38	
Cost	98.8	9.85	Million Dollars

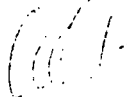
It is apparent from this Table that, if our calculations are correct, the MURA machine is indeed an extremely expensive machine whose principal advantage derives from the high injection energy rather than the intrinsic design of the machine. This fact has been somewhat obscured by the novelty of the design of the machine, but, nevertheless, I believe the numbers in the Table speak for themselves. As a taxpayer, it seems to me unreasonable to spend 98.8 million dollars on the MURA machine when the expenditure of about 10 million dollars on the ZGS approaches within a factor of four of the more expensive machine.

Needless to say, there is another factor to be considered and that is that if the ZGS is not improved by the addition of a new injector, and at the same time the MURA machine is authorized, we will undoubtedly witness the demise of high energy physics at Argonne, with the consequent waste of a 50 million dollar installation. This also disturbs me deeply.

We at Argonne have struggled over the last few years to rebuild high energy physics in the Midwest. We have succeeded in doing this, using the ZGS as a focal point, and are very proud of the spirit of cooperation and the enthusiasm which is now apparent both at the Laboratory and in the surrounding universities. I realize that this is an intangible factor to take into account, but I would hate to see the spirit weakened by the implementation of the recommendations of the Ramsey Panel.

I enclose a copy of the statement made to the Panel, prepared by Roger and myself. I trust you will not feel this letter to be an impertinence, but I did feel very strongly that I should make my thoughts known to you.

Sincerely,



Albert V. Crewe
Director

AVC:hl

Enclosure

THE MURA PROPOSAL AND ITS IMPACT ON
ARGONNE NATIONAL LABORATORY

Albert V. Crewe

UNCL. BY DOE
NOV 86

The MURA proposal is unquestionably an important and significant document. It has been carefully prepared by people who are experts in their field and eminently qualified to submit such a proposal. The machine described therein constitutes a significant advance in the state of the art of high energy accelerators and deserves to be considered with great care. Needless to say, we have come to expect imaginative and significant suggestions from the MURA organization, which has done so much to further the advance of accelerator technology.

The proposal raises a number of interesting questions which may or may not have relevance to the work of the Panel. For example, one can ask whether the cost estimate included in the proposal is a reasonable estimate for the machine described. I believe that the estimate which is given is considerably on the low side and have made some comments to this effect in a letter to the Director of the Division of Research, USAEC. I will therefore not consider this matter further at this time. Questions of greater importance are ones such as: Should this machine be constructed, and, if so, should it be constructed in the Midwest? I will make some remarks in this connection.

Should the MURA Machine be Constructed?

It is important to recognize that a given intensity energy and duty cycle can be achieved in different ways at different costs and it is incumbent on the proponents to show that their proposal represents the lowest cost for achieving the objectives. It seems reasonable, therefore, to compare the MURA machine with other methods for achieving at least some of the objectives. I will take as an example the cost of increasing the intensity of the ZGS and the limitations of this intensity, although it must be stressed that it would also be reasonable to do similar calculations for the AGS.

The intensity of the ZGS is, of course, limited by a space charge consideration. These limitations occur at injection and are insignificant soon

The space charge limit is a relative to the injection energy and can be lowered by raising the energy of injection. It should be pointed out that the ZGS has been specifically designed for multiple turn injections and has a large vacuum chamber so that it is simple to inject several hundred turns.

With an injection energy of 50 Mev, the space charge limit of the ZGS is several times 10^{13} protons/pulse, and by raising the energy injection to 200 Mev, which is the same injection energy as the MURR proposal, the space charge limit is raised to 3×10^{14} protons/pulse, which is comparable to the intensity claimed for the MURR machine. The cost of installing a 200 Mev injector onto the ZGS has been estimated by our accelerator staff at \$9,650,000.

It should perhaps be pointed out here that the use of a 200 Mev injector is a significant step forward in achieving higher intensities and indeed is one of the principal reasons why the intensity of the MURR machine is so good. It therefore seemed to us perfectly reasonable to analyze the performance of the ZGS when supplied with the same injector. This has the added advantage that it makes possible the comparison of cost estimates from our own staff and from the MURR proposal. This gives us added confidence that the cost estimate which we provide is indeed close to the truth.

We must, of course, recognize that this space charge limit is a factor of three or so less than for the proposed MURR machine, but, nevertheless, it should be possible to attain an intensity of, say, 2×10^{14} protons/pulse. Therefore, at least from the point of view of intensity and energy, it would be much cheaper to install a new injector on the ZGS than to build the MURR machine. With regard to duty cycle, it is unquestionably true that the MURR machine would have a better duty cycle than the ZGS, although it should be pointed out that at an operating energy of 10 Bev the ZGS can operate with a "flat top" of 1.5 seconds every four seconds so that the duty cycle of the MURR machine is only a factor of three or so better than the ZGS.

In view of these considerations, our next answer the question as to whether the difference between the cost estimates for the MURR proposal and a new injector for the ZGS is worth a factor of four or so in intensity and four or so in duty cycle. I personally will venture the difference is not worth \$100 million.

The following table summarizes the situation.

	<u>MURA</u>	<u>ANL*</u>	
Energy	10	10**	Bev
Intensity	2×10^{14}	5×10^{13}	Protons/sec.
Duty Factor	1	0.38	
Cost	98.8	9.85	Million Dollars

*The shielding around the ZGS has been calculated to be sufficient for this intensity, and therefore the machine modifications needed to achieve this intensity involve the same injector as proposed for the MURA machine and an increased power in the R.F. system.

**12 Bev full energy. 10 Bev shown for more direct comparison to MURA proposal.

The cost estimates are believed to be strictly comparable in that they include and ignore the same factors. For example, one criticism of the MURA proposal is that no account is taken of the difficulty of handling the targets and maintaining the machine when it achieves the high degree of radioactivity which it certainly will. The solution of this problem will involve a great deal of expensive remote handling equipment. The provision of this equipment was ignored in the MURA proposal and has been similarly ignored in our own cost estimate for the ZGS. Any complete study of this improved version of the ZGS would have to involve these factors.

The Future of a MURA Machine at Argonne

The ZGS at Argonne is being considered as a central facility for Midwest high energy physicists. The machine and its experimental facilities have been designed in collaboration with these physicists so that the machine will truly represent their interests and will be suitable for their use. It has always been intended that the major use of the machine will be by outside groups and that full-time Argonne employees will have less than 50 percent of the available time on the ZGS. The working groups form a loose organization known as the Argonne Accelerator Users Group which meets regularly at the Laboratory. This Users Group represents virtually all high energy physicists in the Midwest. It is clear then that the MURA machine would have to draw on this same group of physicists for their experimental groups. Therefore, the situation would not be the usual one of rival groups of experimentalists each supporting its own machine, but rather a large group of experimentalists dividing its interest between two different machines.

We can assume that if the MURA machine were supported there would be no support for a new injector for the ZGS. At the time of completion of the MURA machine there would be two similar machines in the Midwest, one of which (the MURA machine) would have an intensity some twenty times greater than the other (the ZGS). This would lead to a movement of experimentalists from Argonne to MURA. While this in itself would not be significant to the outside world, it would probably cause a severely damaging effect on high energy physics throughout the Midwest in the period from now until the MURA machine becomes available. One may expect a tendency for the government to withhold adequate financial support from the ZGS during this period because one could always argue that the MURA machine would be "taking over" in a few years. The ZGS can sustain a competitive research program only with the construction of essential experimental facilities such as a large bubble chamber, new beam systems, additional experimental areas, and automatic data reduction apparatus. We could hardly expect the AEC to provide these facilities at Argonne with a new and expensive but similar machine in construction so near at hand. We fear that in spite of possible assurances to the contrary a decision now to build the MURA machine would send the ZGS on a decline just as it is going underway. The confidence and enthusiasm of our Users Group could hardly

with the next year of decline. This would amount a major objective of the ZGS program to move quickly in order to strengthen the Midwestern universities which were losing faculty to the two coasts. We are pleased with the success we have thus far achieved toward this goal in cooperation with the universities. It is important for this to continue. The Midwest has far more to gain by combining its efforts than by dividing them.

Suggestions for Future Program

Apart from the AFURA proposal, there appear to be three significant proton accelerator facilities which are well worth while pursuing. These are:

- (1) A machine of about 200 Bev which could be constructed fairly rapidly.
- (2) A clashing beam facility using a pair of storage rings.
- (3) A machine in the 1000 Bev range which will take some time to specify and construct.

It seems most reasonable to locate the first of these at Berkeley, the second at Brookhaven, and the third in the Midwest.

The group of experimentalists and theoreticians gathered around the accelerators at Berkeley undoubtedly represent the strongest such group in the world. In order to keep this group pre-eminent, it would be necessary to provide it with a modern research tool in a reasonable period of time. It appears that this could best be done by the construction of a machine of about 200 Bev which would be reasonably conventional. One cannot doubt that the combination of talents of the physicists in Berkeley and the availability of such a research tool would insure for the country an extremely valuable program of high energy research. It is unlikely that any other laboratory is now prepared to build such a machine so rapidly.

The AGS has proven to be an efficient, effective and reliable accelerator with an internal circulating beam of high quality. If this machine were provided with colliding beam storage rings, we could achieve a greater increase in center-of-mass energy than could be achieved by any other machine now conceived. Neither the CERN nor the ZGS could provide as high quality external beams for transfer into the storage rings.

A machine in the 1000 Bev range could be designed and constructed by the Brookhaven-MIT group which, taken together, would represent our

of the strongest accelerator groups in the world. I believe that the suggestion is a reasonable one and I have some indication that the MURA technical staff would cooperate in such a program.

It would appear that this three-point program would provide the country with a continuing high energy physics program of great strength and versatility. I trust that it will be given serious consideration.

2/15/63

DO FILE

JUN 25 1963

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NOV 86

Dear Al:

I wish to acknowledge the receipt of your letter of June 11, 1963, concerning your reaction to the Ramsey Panel report, a subject which we discussed during your visit here on June 13 and 14.

I share your view that the report contains one of the best expositions of the importance of high energy physics. It is gratifying to see the emphasis which the Panel has placed on the Users' concept which is presently being manifested not only at ARL but at our other laboratories as well. I, too, am gratified with the role which the TGS complex has played in establishing strong ties with the Mid-Western Universities; a role which should benefit both Argonne and the universities.

Your concern with the future of the TGS in view of the possible construction of the MIRA accelerator as recommended by the Panel is understood. The Commission is fully cognizant of the large capital investment made by the country in the TGS; every effort will be made to insure the productive operation of the machine sufficiently far into the future to justify the funds expended and the large effort made by your laboratory in constructing the accelerator and its associated laboratories and facilities. The Commission certainly regards the TGS as an important aspect of its research program.

You have raised a series of technical considerations on comparing the capabilities of the TGS, if it were to undergo an improvement program, with the capabilities of the proposed 12½ Bev FFAG accelerator which the Panel recommends be constructed near Madison, Wisconsin. We recognize that an evaluation of the potentialities of an improved TGS is an important task which must be carried out as soon and as carefully as possible. We are, therefore, giving serious consideration to the points mentioned in your letter. You realize, of course, that some time may elapse before I will be in a position to respond to your letter in a technical manner.

In the meantime, I wish to assure you that in our planning for the use of the LGS every consideration will be given to the important role which that facility will play in the Middle West.

Sincerely yours,

(Signed) Glenn I. Seaberg

Chairman

Dr. Albert V. Crane, Director
Argonne National Laboratory
9700 South Cass Avenue
Argonne, Illinois

Enclosures:

1. Ltr. fr. Chm. Seaberg to Prof. Ramsay
2. Ltr. fr. Chm. Seaberg to Dr. Wiesner

cc: Professor Norman F. Ramsay
Harvard University

Dr. Jerome B. Wiesner
Executive Office Building

cc: Chairman (2) ✓
General Manager
AGIRD

RES:JCSeveriens/br

From 3 p.m. until 4:15 p.m. I met in the White House Situation Room with Kaysen, Gilpatric, Wiesner, C. Johnson, Keeny, Shapley, Palfrey, Luedecke, Crowson, Schuldt, and Henderson to arrive at final conclusions on recommendations to the President for the FY 1965 stockpile. A joint letter from McNamara and me will be sent. We also made plans for the handling of the FY 1972 long-range stockpile problem: a task force will present all aspects, including economic and sociological, to McNamara, Bundy, Gordon and me before the problem is placed before the President for decision.

I sent my biweekly report to the President, who is in Europe this week.

I attended the FCST reception for Dr. Waterman at the Cosmos Club. He is retiring as Director of the National Science Foundation on July 1st, when Haworth takes over.

Wednesday, June 26, 1963 - Germantown

At 10 a.m. I presided over Information Meeting 287 (notes attached). We discussed our June 24th letter to Senator Pastore on private ownership of nuclear fuel (copy attached). During the meeting Senator Jackson called me and said he plans to visit the State of Washington over the July 4th weekend and go to Richland on July 8th to talk with Travis and Johnson. He wondered if I had any objection to his inviting Jim Ramey to go along. He said that John Conway probably would be going also. Jackson is worried about the situation, and he and Senator Magnuson hope to have Jim Webb visit the installation. He mentioned that Finger is impressed with the setup. I told him I thought they were working in the right direction by getting Webb out there as Finger could go just so far. I also said that I thought it was a good idea to invite Ramey as this would have advantages from our point of view. I suggested that Scoop might want to see the President or Bundy on the Hanford situation. I said that I have made the point to the President and to Bundy that consideration should be given to the economics of the situation; so they are aware of the problem. However, I did say we probably will undertake a task force study of the situation which will be discussed at the Principals' level before it is finally considered by the President.

The Authorization Bill giving the JCAE increased power (covering operating expenses) passed the Senate and found no opposition in the White House.

At 12:05 p.m. I presided over Commission Meeting 1944 (action summary attached).

I had lunch with Dan Wilkes to discuss a book on AEC Educational Activities which we are writing for the 1964 Geneva Conference on the Peaceful Uses of Atomic Energy.

At 2 p.m. I presided over Commission Meeting 1945 (action summary attached).

Helen and I attended a reception for the Foreign Science Attaches of the Washington Embassies, given by Wiesner and Rollefson, at the State Department. I saw M. A. Shumaev, the Soviet Scientific Attache, who said he had attended my press conference on June 3rd and reported favorably to Petrosyants.

Thursday, June 27, 1963 - D. C. - Denver

The staff briefed the Commission on the status of the SNAP study. They are veering away from the use of Cm-244 as fuel due to cost.

Fritsch, Henderson, King and I had a farewell luncheon for Vic Schmidt at Le Gourmet.

I met with John Dunning again regarding a possible patent settlement.

#

June 25, 1963

PERSONAL AND CONFIDENTIAL

UNCL. BY DOE
NOV 88

Dear Mr. President:

I have the pleasure of submitting to you the regular bi-weekly report on significant developments in the atomic energy program:

1. Proposed U.S.-India Safeguard Arrangements - Tarapur Project
(Official Use Only)

In my last report, I discussed the captioned matters at some length and would now like to update the June 11th report as follows:-

a. IAEA Approves Safeguards for Reactors Larger than 100 Thermal Megawatts. The Board of Governors has approved a system of safeguards procedures applicable to reactors larger than 100 thermal megawatts. Present IAEA safeguards apply only to reactors of less than 100 megawatts. The action is significant in that when the Agency finally approves the system it will be in a position to enter into appropriate agreements to provide safeguards for power reactors around the world.

In the vote on the resolution, the Soviet Union joined with Western nations in voting approval. There were three abstentions and no negative votes. Those nations abstaining were India, Japan and South Africa. India based its abstention on the assertion that it did not have adequate time to study the proposal. Japan's abstention involved some opposition by Japanese industry to a number of technical points in the safeguards proposal.

b. IAEA to Assume Safeguards Responsibilities in Japan. During their current series of meetings in Vienna, the International Atomic Energy Agency's Board of Governors approved a trilateral agreement between the Agency, Japan and the United States whereby the Agency will assume safeguard responsibilities over nuclear material and equipment which the United States supplies to Japan under its Agreement for Cooperation on the Peaceful Uses of Atomic Energy. Signing of the agreement is expected to occur within several weeks.

c. Indian Tarapur Negotiations. Discussions with Dr. Bhabha were resumed on June 19th and substantive agreement has been reached on the text of the Agreement for Cooperation between the United States and India covering construction of the Tarapur reactor. As soon as a final text has been developed, it will be submitted to you for approval.

2. Key West Saline Water Project (Unclassified)

The AEC is cooperative with the Office of Saline Water, Department of the Interior, in evaluating the feasibility of utilizing a nuclear reactor as the power source for a combined electric power plant and saline water conversion plant for the Florida Keys area. The Department of the Interior issued an invitation for proposals for an engineering and economic feasibility study of this project on June 21st. Present planning contemplates award of the contract by August 1st, and completion of the study by November 15th.

The nuclear portion of the study involves evaluation of the use of a light-water reactor, pressurized or boiling, to provide approximately 22 Mw for the City of Key West and steam for the production of approximately 7.5 million gallons of water per day. The over-all plant size contemplated is in the range of 150 to 175 MW thermal.

3. U.S. Savannah (Unclassified)

In my report of May 14th, I stated that the U.S. Savannah will be out of service for at least four to six months. The U.S. Department of Commerce has invited ship operators to submit proposals for operating the U.S. Savannah as General Agent. Port visitations by the U.S. Savannah are scheduled to resume in June, 1964.

Until the ship is delivered to the as yet unselected, new General Agent, it will be manned by Babcock & Wilcox, Todd Shipyard, and Government personnel under the direction of the U.S. Atomic Energy Commission-Maritime Administration Joint Group.

Babcock & Wilcox, by contract signed June 11th, has assumed responsibility for the shore supporting activities and has also instituted a program for training instructions in operating and academic phases of ship operation.

4. Congressional Notes (Unclassified)

a. The Joint Committee on Atomic Energy has reported out Authorization Bill for FY 1965. Highlight of JCAB action is an amendment extending JCAB authorizing jurisdiction to the Commission's total budget. Points for the Military Compact Reactor were spelled, and reservations were expressed regarding the general direction of the military reactor program.

b. Hearings on my nomination and that of Dr. Gerald Tapp were held on June 20, and the nominations were reported to the Senate on the same day where they were confirmed on June 24. Representative Whitfield took occasion to pay tribute to the record of departing Commissioner Fourth.

c. On June 19, Commissioner Fourth appeared before the House Armed Services Committee in support of H.R. 3940, which would permit use by the Southern California Edison Company of a portion of the Camp Pendleton Marine Base for a nuclear power reactor. Committee reaction was favorable.

d. Senator Humphrey has invited me to appear before the Senate Select Committee on Small Business on July 15 to discuss the influence of technological resources on economic growth.

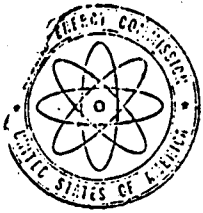
e. The AEE will contribute a witness for hearings before the House Committee on Labor and Education regarding the relationship of elementary and secondary educational opportunities to national manpower needs. My appearance is scheduled for June 25.

f. With the completion of authorization hearings, the JCEC can be expected to turn increasingly to the subject of nuclear weapons for RMO.

Respectfully submitted

Clayton T. Searcy

The President
The White House



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

COPY NO. 15
June 26, 1963

UNCL. BY DOE
NOV 86

INFORMATION MEETING 287

10:00 a.m., Wednesday, June 26, 1963 - Chairman's Conference Room, A-457

1. Meeting Yesterday with White House Staff to Discuss 1965 Stockpile

The Chairman reported briefly on the meeting which he and others attended and said essential agreement had been reached on the joint AEC-DOD letter with some minor exceptions. The group reiterated plans for the task force study of 1972 projections.

2. Appointment of Argonne Staff Member

The Chairman noted Dr. Crewe's letter regarding Dr. Spinrad's departure from the laboratory. The General Manager said Dr. English is discussing with Dr. Crewe the matter of replacement, and the Chairman emphasized the Commission's desire that a competent person be appointed for the vacancy.

3. Status of AEC 1964 Authorization Bill

4. Commissioner Haworth's Testimony Yesterday at the Stennis Committee Hearing

The Chairman and Commissioner Palfrey reported briefly on Dr. Haworth's testimony at the Hearing.

5. KENNEBEC (pre-COACH) Event at NTS Yesterday

The Chairman commented briefly on the success of the event.

6. Chairman's June 25 Letter to Secretary Hodges re Selection of N. S. SAVANNAH Operator

Noted.

7. Draft Letter to Senator Bennett re Tests During Grazing Season

The Chairman requested revision of the draft letter. Additionally, Mr. Ink suggested this matter be discussed with Mr. Johnson, White House staff. (Henderson)

✓ 8. Proposed Letter to Senator Anderson re Los Alamos Accelerator

The Chairman requested review by the Commissioners. (Henderson)

9. Tarapur Reactor Project

The Chairman spoke briefly of the Commissioners' meeting with Mr. Bhabha on Monday, at which time Mr. Bhabha accepted the proposed position re IAEA safeguards. He discussed further the Joint Committee Hearings yesterday and the affirmative statements made by Senator Pastore and others in support of the project.

10. Peach Bottom Reactor Dedication, Tuesday, July 9

Dr. Wilson noted the invitation to the Commissioners to attend. (Secy)

11. Commissioners' Meeting with Southern California Edison Officials to Discuss Saline Water Plant Utilization

Dr. Wilson reported briefly on the Monday meeting at which he and Commissioner Ramey discussed this possibility with the Southern California Edison officials. He said Southern California Edison considers the project too far advanced at this time for them to include consideration of the use of a saline water plant.

12. Alternative Language re Toll Processing Under the Private Ownership Bill

Dr. Wilson reported on his meeting with Messrs. Bokum and Bush of United Nuclear, at which they discussed the matter of toll processing. The Commissioners agreed the General Counsel should draft alternative language for possible use in coordination with the Joint Committee staff. (GC)

✓ 13. June 24 Letter to Senator Pastore re Private Ownership

Mr. Ramey commented he had not had an opportunity to review the letter prior to its transmittal, but said he joins the General Counsel in his opinion on the matter. In response to Mr. Ink's comment re the Joint Committee's query, the Chairman suggested the staff be informed of the reason for transmittal of the letter at this time. (Ink)

14. Senator Jackson's Invitation to Commissioner Ramey to Accompany Him on a Visit to Hanford, July 8

The Chairman noted Senator Jackson's invitation in a telephone conversation during the meeting. He said Senator Magnuson was considering inviting Mr. Webb, NASA, to join the group, and that he had said he thought this was desirable.

15. SEFOR Evaluation Project Criteria (see Mr. Ink's June 22 memorandum to the Commissioners)

The Commission approved the criteria, as revised. (Vinciguerra)

16. AEC 974/4 - Availability of Highly Enriched Fuel for Proposed German Power Reactor

Approved, as revised. (Wells)

17. General Manager's Report on Yesterday's Meeting with Kentucky Delegation to Discuss Paducah and Allied Chemical

18. Mr. Ink's Report on Security Investigations

PRESENT

Dr. Seaborg General Luedecke
Dr. Wilson Mr. Ink
Mr. Ramey Mr. Hennessey
Mr. Palfrey Mr. Henderson
 Mr. McCool

DISTRIBUTION

Commissioners
General Manager
General Counsel
Secretary

W. B. McCool
Secretary

C O P Y

June 24, 1963

Senator John O. Pastore, Chairman
Joint Committee on Atomic Energy
Congress of the United States
Washington 25, D. C.

UNCL. BY DOE
NOV 86

Dear Senator Pastore:

With regard to the private ownership bill, I was somewhat concerned recently to hear the rumor that there was some reluctance on the part of some members of the Joint Committee to consider the private ownership legislation at an early date because it would not become fully effective for ten years and therefore it could not be a matter of urgency. I should like to make clear that there are at least two problems intimately connected with private ownership which do have real urgency, for which reasons we feel it is important that some legislation along these lines be completed at this session of Congress.

The first of these is the fact that our \$30 per gram buy-back price on plutonium expires July 1 and that the Commission, for reasons explained by Commissioner Wilson and Mr. Hennessey at recent executive hearings, feels that it would be in a difficult position, as the law now stands, to establish a lower price based on fuel value for plutonium delivered to us by domestic reactor operators subsequent to July 1, 1963. You will recall that the law requires, in essence, that we pay a fair price to all domestic producers of plutonium, taking into consideration the value of the material for its intended use by the United States.

As was pointed out, for several years this intended use will be primarily for research and development purposes and therefore it is not possible to determine with any accuracy the value for this intended use. Any assessment of the value of plutonium for this intended use may be affected by the fact that the French have agreed to pay the British over \$100 per gram for half the plutonium required for RAPSODIE, and that we have recently set a charge of \$43 per gram of plutonium, based on the cost of production in our most efficient production reactors. If a reactor operator offers us some plutonium in the next few months, instead of accepting a price reduced from \$30 per gram to a near-term fuel value of \$8 per gram of plutonium (or \$10 per gram of the fissionable isotopes), he might well contend that the fair value is not less than \$43, the charge established for plutonium distributed by AEC, which is the cheapest available alternative source for most of our needs the next few years. Payment at the \$43 rate would give reactor operators a tremendous windfall and possibly lead to a rush to get

June 24, 1963

plutonium out of the reactors and into our hands before the law is changed. We would, of course, not want to spell out these possibilities in any public hearings.

This difficult situation would be eliminated if our proposed private ownership legislation were enacted. The Commission would have complete discretion to establish a guaranteed price for plutonium that would not exceed its value as fuel in a nuclear reactor. There could be no charge that the Commission was arbitrarily establishing unreasonable and unfair prices for the plutonium produced by licensees, since under the proposed legislation the producer would have the option of retaining title and holding the material until it had attained a higher value. If the Act were amended only to base the determination of fair price on the value of plutonium as fuel in nuclear reactors, and mandatory Government ownership continues, producers might contend, and possible institute litigation based upon the theory (with which our General Counsel is not in agreement), that the mandatory government ownership provisions of the Act constitute a taking of his property, that he is constitutionally entitled to just compensation, and that the fuel value price does not amount to just compensation.

The other question of real urgency is with regard to toll processing of enriched fuel for foreign reactors, which is very important to our reactor manufacturers. We understand that the Spanish Government decision on this is primarily awaiting U.S. Government action, and we have advised them that we hope to get this matter cleared up in the near future. We could, of course, have some special legislation permitting toll processing for foreigners without passing the entire private ownership bill; but we feel that domestic operators would consider that they were being discriminated against if they did not have similar privileges, even though they might be limited to buying domestic ore.

There are additional arguments for acting at this session of Congress, in that those now considering the installation of reactors would like to be able to figure more certainly on their costs, which can only be done if the private ownership provisions and the buy-back prices are determined. Also, since we have been generally talking a period of ten years before making private ownership compulsory, if the legislation is not passed for another year and the ten-year provision were retained, it would mean that the Government was that much deeper in the fuel ownership and accounting problems mentioned in Commissioner Wilson's letter of last January 25.

Trusting that these matters will have your careful consideration, I am,

Very truly yours,

/s/ Glenn T. Seaborg
Chairman

UNITED STATES GOVERNMENT

Memorandum

UNCL. BY DOE
NOV 86

TO : A. R. Luadaska, General Manager

DATE: June 23, 1963

Approved: A. R. LuadaskaFROM : A. R. Luadaska, SecretaryDate: 6/27/63SUBJECT: ACTION SUMMARY OF MEETING 1944, WEDNESDAY, JUNE 26, 1963, 12:05 P.M.,
ROOM A-410, GERMANTOWN, MARYLAND

SECY: JFG

Commission Business1. Minutes of Meeting 1925

Approved, as revised, subject to comments by Commissioner Haworth.

2. AEC 25/262 - Proposed Air Force Safety Rules

Approved. (Betts)

Colonel Crowson said information will be provided the Commission on retrorocket malfunctions.

3. AEC 25/263 - Proposed Navy Safety Rules

Approved. (Betts)

4. AEC 25/264 - Proposed Air Force Safety Rules

Approved. (Betts)

5. AEC 25/265 - Proposed Air Force Safety Rules

Approved. (Betts)

6. AEC 25/266 - Proposed Army Safety Rules

Approved, as revised. (Betts)

The Commission requested paragraph 5 of the draft letter to the Secretary of Defense be revised in accordance with the discussion at the Meeting. (Betts)

7. AEC 25/267 - Proposed Navy Safety Rules

Approved. (Betts)

8. AEC 1120/7 - Additional Proposal for Annual Legislative Program
Approved. (Marshall)
9. AEC 890/93 - Fully Enriched Uranium for Foreign Reactors
Deferred.

Other Business

Special Production Facilities Problem

The Commission noted a staff paper is in preparation.
(Marshall)

Items of Information

1. Sensing Device for Davy Crockett/Falcon
2. Report on JCAE Meeting with Rules Committee
3. Report on Kennebec Event

cc:
Commissioners

UNITED STATES GOVERNMENT

Memorandum

UNCL. BY DOE
NOV 86

TO : A. R. Luedcke, General Manager

DATE: June 27, 1963
Approved: *A. R. Luedcke*

FROM : W. B. McCool, *Secretary*

Date: 6/27/63
A. R. Luedcke

SUBJECT: ACTION SUMMARY OF MEETING 1945, WEDNESDAY, JUNE 26, 1963, 2:20 P.M.,
ROOM A-410, GERMANTOWN, MARYLAND

SECY:JCH

Commission Business

1. AEC 1134 - Extension of Contract with University of Tennessee
Approved. (Vinciguerra)

The Commission noted there would be early submission of recommendations regarding extension of the contract with Union Carbide for operation of ORNL. (Vinciguerra)

2. AEC 1135 - Architect-Engineer Contractor for Test Cell "E" and Modification of Test Cell "C" (NRDS)
Approved. (Vinciguerra)

3. AEC 194/45 - Proposed Extension of Contract with Mallinckrodt Chemical Works
Approved as revised. (Vinciguerra)

The reason for the one year extension is to be discussed with Mallinckrodt top management and it should be indicated that there will be solicitation for proposals for any further extension of this contract which may be in combination with the other feed materials contract. (Vinciguerra)

The Commission requested the possibility of solicitation of firms for one operation of both feed material processing facilities not be announced at this time nor discussed with National Lead. (Vinciguerra)

4. AEC 1099/4 - Amendment to Charter of the Labor Management Advisory Committee
Discussed.

The Commission approved the principle of expanding the scope of the charter through the mechanics of careful agenda planning and review of proposed topics with the Commission. (Smith)

AEC 1099/4 (continued)

The Commission requested arrangements be made for an early meeting with Mr. Meany and the Labor members of the Labor Management Advisory Committee. (Smith/Secretary)

5. AEC 181/106 - Contractor Selection Procedures

Discussed.

Other Business

1. Dr. Harold Brown's May 31 Letter re MCR

The Commissioners had no objection to your providing the letter to the JCAE. (Donovan)

2. Informal PRDC Proposal re Research Contract

The Commissioners had no objection to PRDC's submission of a proposal. (Pittman)

Commissioner Ramey requested a report on the financial capability of PRDC. (Pittman)

The Commission deferred action on the submission of a proposal by Westinghouse and others.

Items of Information

1. AEC Authorization Bill to Floor of House - Week of July 9

2. Report on NRDS Support Services Contractor (Pan American Airways)

3. AEC 1131/6 - PDRP - Proposed Cooperative Arrangements with Department of Water and Power of the City of Los Angeles

You requested consideration on Friday.

4. Report on Niagara-Mohawk Proposal re Construction of 500 MW Water Reactor

cc:
Commissioners

The Commission met with Commonwealth Edison officials - Willis Gale (Chairman, Executive Committee), Gordon E. Corey (Executive Vice President), Robert Bauer (Treasurer) and I. L. Wade (Administrative Engineer). They have no immediate prospect for more nuclear power because the cost of coal in Chicago is down to 22 cents per million BTU.

I flew to Denver on United Flight 767 which left at 7 p.m. I arrived at 7:25 p.m. I was met by Eleanor Finley and her sister Virginia Grahame (visiting her). We were driven to the Finley's home in Golden at Lookout Mountain where I spent the night. Virginia's son John was also visiting there and Eleanor's husband Bob was away on a trip.

Friday, June 28, 1963 - Denver

I was driven by Eleanor to the University of Colorado in Boulder where I toured the Nuclear Physics Laboratory cyclotron area with Professor David Lind and Kraukshaar. I had a press conference and recorded for KOA-TV.

At 11 a.m. I attended the dedication of the Nuclear Physics Laboratory. Colorado Governor John Love made welcoming remarks. After being introduced by the outgoing President, Quigg Newton, Professor Lind and I gave the dedicatory address, "On the Interdependence of National Laboratories and Universities." I left soon after my talk.

Accompanied by Seth Woodruff (Rocky Flats AEC Area Office Manager) I flew in an Air Force Convair (ADC LT-29 aircraft) from Lowry Air Force Base to Colorado Springs, where I visited NORAD headquarters. I met Canadian C. R. Slemon (Deputy Commander-in-Chief) and was briefed by Brigadier General R. S. Abbey (Organization and Mission), Lieutenant Colonel R. F. Kubiszewski (Intelligence), Colonel W. E. Corley, Jr. (Aerospace Defense) and Brigadier General R. S. Abbey (Future Aerospace Defense). I visited the Combat Operations Center where I was briefed by Brigadier General L. W. Stocking and Lieutenant Colonel J. R. Baudy, Jr. I saw all the means for keeping in touch with operations centers in the U.S., Canada and elsewhere. I also met Major General Webster (Chief of Staff, USAF Air Defense Command) and Brigadier General Curtis.

I flew back to Denver in the Air Force Convair.

I had dinner at the Brown Palace Hotel with Virginia Grahame and Eleanor Finley. A band played dance music of the 1930s and 1940s era.

Saturday, June 29, 1963 - Denver - Washington

I toured the Coors Pluto Fuel Element facility in Golden under the auspices of Joseph Coors (President) and Bob Mornin (in charge of operations). All the key people were on hand to brief me as we proceeded through the plant. It is a very impressive operation.

I had lunch at the Coors' home on the Beer Plant grounds with Mr. and Mrs. Adolph Coors, sons Joe Coors and Bob Coors, and Seth Woodruff. Another son, Adolph Coors, Jr., was kidnapped and killed about three years ago.

I visited Mr. and Mrs. Rockel (Ebba is a cousin of mine) who are Denver residents and Mrs. Wally Eggen who is visiting the Rockels.

I flew back to Washington on United Flight 868, leaving Denver at 4:40 p.m. and arriving at Dulles Airport at 10:55 p.m.

Sunday, June 30, 1963

I read AEC papers at home.

Helen and I attended an AEC reception for foreign Scientific Attaches at the Mayflower Hotel and then went to the Rameys' home for dinner.

LAWRENCE BERKELEY LABORATORY
TECHNICAL INFORMATION DEPARTMENT
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