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JOURNAL OF  
**GLENN T. SEABORG**

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

*July 1, 1968 - January 19, 1969*

Lawrence Berkeley Laboratory  
University of California

PUB-625  
v.17  
.2

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PUB-625

JOURNAL  
OF  
**GLENN T. SEABORG**

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

VOLUME 17

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## PREFACE

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

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

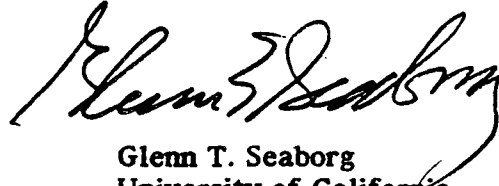
When I returned to the University of California, Berkeley, in November 1971, a couple of months after my tenure as Chairman of the Atomic Energy Commission, the two copies of my journal, which I presumed had been cleared, were sent there. Copy #1 eventually came to my Lawrence Berkeley Laboratory office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

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

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

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

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



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

## INTRODUCTION

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

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

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

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

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

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

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



Monday, July 1, 1968 - Los Angeles

I had breakfast in the Jubilee coffee shop.

I then watched on channel 4 (NBC) the ceremony held in the East Room of the White House (8:30 a.m.- 9 a.m. PDT) for the signing of the Non-Proliferation Treaty. Secretary Rusk, Ambassador Patrick Dean, Ambassador Anatoliy Dobrynin, and representatives of about 50 other nations signed the treaty. Then Rusk, Dean, and Dobrynin spoke, followed by President Johnson who repeated his offer to place U.S. peaceful nuclear facilities under IAEA Safeguards and said talks have been arranged between the Soviet Union and the U.S. on limitation of offensive and defensive nuclear weapons and ballistic missiles. I saw Helen in the audience, sitting next to Jerry Tape, as the TV cameras put her into view about four or five times.

Jim Renhult (Project Officer) and John Mason (Chief Engineer, Garrett Corporation) picked me up at the motel and drove me to the Air Research Plant of the Garrett Corporation (a subsidiary of Signal Oil Company) in Torrance. Here I met Harry H. Wetzel (President and Chief Executive Officer of Garrett) and Friedericy (scientist on the project who transferred from Oak Ridge a few years ago). They showed me their centrifuge project, including a centrifuge in operation and the manufacturing process. Renhult and Mason then drove me back to the motel where I had lunch in the coffee shop.

I then went to visit Mother in St. Francis Hospital. Her housekeeper, Ruth Ryan, and Ann Engstrom also visited her while I was there. I had a good visit with her and we discussed many things and reminisced.

I then took a walk as far as Tweedy Boulevard and back and returned to the motel where I had dinner at the coffee shop after calling Helen to give her a report.

I then went to the hospital where I found Jeanette already visiting Mother. Ethel Clauss also visited for a while. We had a good talk and discussed such things as Mother's trip to America in 1904, her meeting and courtship by Pa, early days in Home Gardens, etc.

We discussed a number of things during the afternoon and evening visits.

Mother described the circumstances under which she came to America in 1904. On a visit to Grangesberg in April 1904, her uncle, Erik Hedstrom, called on her in the Konditorium where she was working and recognized her immediately as a member of the "slecht" (relationship). He asked if she wanted to go to America with him and she immediately said she would, but asked where could she get the money. After an attempt to borrow it from an uncle in Orthän (Urchin), her father gave her the needed 200 kroner which was, in any event, due to her as part of her inheritance from her mother. The implication was that her stepmother was glad to see her go. (Her sister Hilda came to America the following year.)

She left Grangesberg on April 22nd. They spent five days in Gothenburg waiting for the boat to leave and hence must have left there on April 27th or 28th. They landed in New York and were processed through Ellis Island, but did not spend the night in New York. They went immediately on, changing trains in Chicago (where they didn't stay overnight) and in Milwaukee. They arrived in Ishpeming, Michigan on May 12, 1904. (Hilda, who came with Mrs. Schuld, went first to Norway and Iron Mountain area.)

Mother worked in various households as a live-in maid after staying with relatives for a while in order to get started. She was working for the Outhwaites on Strawberry Hill when she met Pa on Midsummer's Day, June 24, 1908. They met at the Vasa picnic in the Deer Lake Grove. Aaron Johnson and Hannah Nilson were their friends and they played a key role on the occasion. Hannah was very interested in Aaron and particularly wanted Mom to meet Pa so that she could have a good chance to be together with Aaron. After the introduction Mom tried to run away but Pa caught her. Then all four of them were together the rest of the afternoon and evening. They went dancing in the Grove Pavilion, late into the night. In fact, Pa didn't bring her home to the Outhwaites' until around 2 a.m. (Incidentally, I caddied for the spinster daughter, Mary Outhwaite, on the Ishpeming Golf Course sometime during the summers of 1920, 1921, and 1922, perhaps all three, which was the period that I caddied on this golf course.)

They were married in the pastor's residence of the Mission Covenant Church, presumably by the pastor, Ture Jacobson, at 8 p.m. on Midsummer's Day, June 24, 1911, exactly three years after they met. Incidentally, they went rather steady during this three-year period but had a two-month hiatus as a result of his coming to see her with a flask full of liquor in his pocket. However, Pa pursued her during this period and finally convinced her he would behave in this respect and they continued to go together (this incident probably took place in 1909). The marriage was a private ceremony with only Hilma Hedstrom and Henry Seaborg present.

They spent their first marriage night in their upstairs apartment in the big house on the rock in the Old Location (the house where I was born). They had furnished this quite well with \$500 worth of furniture, completely paid for with money they had saved. The bed was a brass bed, presumably the one in which I was born. The family moved to our Wabash Street (#802) home in about May 1915 when Jeanette was a year old. The marriage pastor's (Ture Jacobson) home was in the neighborhood of Michigan Street and 2nd, 3rd or 4th Streets.

I was baptized by the Methodist Church when I was a few months old in a double ceremony with Clarence Samuelson at the home of Hedda Samuelson (near our home) where a dinner was served for friends following the ceremony. Jeanette was baptized at our home by the Mission Covenant Church, followed by a dinner served by Mom in our home for a number of close friends and relatives, such as Henry Seaborg. (Oscar, Mom's brother, came to America in 1908 with Ebba Rockel.)

Jeanette broke her collarbone on rocks near the Swanbergs' in the spring of 1922 as she was running ahead to tell Mrs. Swanberg that Mom was on her way to join her for a visit downtown. She had the collarbone attended by a Dr. Smith. Jeanette was afraid that Pa would be mad when he learned about it that night, but he, of course, was not.

After Pa's second accident while a passenger on Uncle Henry's motorcycle (the one in which he broke some ribs, from which he recovered at home rather than in the hospital), Mom forbade him to ever ride with Uncle Henry again, saying she would "do a Carrie Nation" and destroy Henry's motorcycle with an axe if Pa rode on it again. Uncle Henry was living with us at the time. This was the time that I came home with Pa's smashed dinner bucket as the first evidence that Pa had been in an accident.

Mom also described the circumstances of our move to California in 1922. Bob and Ruth Engstrom came to visit us in our Wabash Street home in February 1922 and told us they were moving to Los Angeles, California, and asked if we would like to join them later. Mom said she would like to go and after some convincing, Pa agreed to go. They sold our Wabash Street home for \$1,200 cash; I believe this included a good part of the furniture. This, plus some modest savings, constituted the sum total of our family's fortune as we left to start life anew in California.

We left Ishpeming on the evening of October 7, 1922 by train after having dinner with newly married Uncle Henry and Aunt Minnie Seaborg. We went by way of Duluth, Minnesota, where we visited one of Mom's friends (or tried to, but I don't remember for sure) and then nearly missed the train due to the slow streetcars. We went on to Minneapolis where we stayed with Aunt Hilda and Uncle Axel Johnson's family for about ten days. (Sidney, the youngest, was about a year old.)

The Johnsons joined us in California in May 1923 and lived with us while their home was being built across the street from our house. It was while the Johnsons were living with us that we had a big wind storm that nearly blew down our house. It had been poorly braced by Bob Engstrom, the builder. Pa, Mr. Johnson, and others of us actually stood against the walls trying to brace them against the wind. Then Bob Engstrom came hurrying over with hammer, nails, and wooden braces, which he hurriedly nailed into place to save the situation.

After the stay in Minneapolis we took the train on to Denver, where we stayed for about ten days with Ebba Rockel, Mr. Rockel and their son Clifford. This length of stay wasn't planned but was found necessary because of Jeanette's serious case of train sickness, which required the ten days for a cure and which wasn't effected until we found a doctor who gave her a medicine that led to a cure.

We then took the train to San Francisco, arriving on November 1st at the Oakland Pier in the late afternoon, and then took a ferry across the bay to San Francisco. Here we were met by a lot of representatives offering transportation to hotels--we chose one to the Argonaut Hotel (if my memory serves me correctly) where we spent the night. We had dinner here and breakfast early the following morning.

We then went to the railroad station (presumably at 3rd and Townsend) and took the train (Coast Line) to Los Angeles. We arrived at the Los Angeles railroad station about 9 p.m. on November 2nd, where we were met by Bob and Ruth Engstrom who drove us to their home on San Antonio Avenue in Home Gardens. We stayed with the Engstroms until about February, when we moved into our unfinished home at 9237 San Antonio Avenue, built for us by Bob Engstrom.

I went to school at the Wilmington Avenue Grammar School in Watts for the rest of the school year. Jeanette went to the Wilmington Avenue School for a few months, then to a school in a store building on California Avenue (which included grades one to three) for the rest of the school year.

Mom also told me about her cousins on her father's side that I haven't visited yet, who helped look up her genealogy. Sigurd Nauckhoff had looked it up as far back as a woman who had married a Perner (possibly a Dutch or Belgian name). Her cousin, Gunhilde Lindos, sister to Nils, cousin to Albert Erickson, found that this woman was the daughter of Michel Hinderesson, the man who married Maria Van Gent and who as the representative of the Dalarna Region occupied the house that is now in Skansen Park in Stockholm.

She also told me about Sven Lindos, Nils' brother, who owned the pig farm she and I visited in 1957 on the way to visit the Albert Ericksons.

She also said we have relatives on her mother's side in Orthän (Urchin) on a farm near Grangesberg that I haven't seen and who would like to see me. There are twins, Halmer and Henry (or Harry), sisters Josephine Carlson (or Erickson) and Gjarda Hedman (who had three girls). Mom visited them in 1957 while I was in Paris. Mom and Pa also visited them in 1948.

### Tuesday, July 2, 1968- Los Angeles

I had breakfast in the Jubilee coffee shop and then Jeanette and Ray joined me and we went to St. Francis Hospital about 10 a.m. to see Mom in Room #405. We spent a little over an hour with her trying to keep her spirits up with reminiscences and positive conversation. She was very alert and in fairly good spirits.

I saw Dr. Hamilton, who said he was ready (and still confident). He was in surgical uniform, ready to start the operation when a room was ready. About 11:15 a.m. a nurse came in to give her pre-surgery injections and we left and waited in the waiting room. Jeanette went back to Mom's room about 11:45 a.m. to find she had already been removed to surgery. Jeanette and Ray then left to do some errands during the operation. I went down to the second floor where the surgery was taking place and sat in the waiting room.

Dr. Zimmerman (head of the Department of Radiation and Nuclear Medicine) came up to me and introduced himself and invited me down to the coffee shop with him. Here he bought me lunch (hamburger and rhubarb pie). We were joined at lunch by Dr. Tom Kidd (cardiologist) and Dr. Lawrence Jacobs (neurologist).

During lunch Dr. Zimmerman and Dr. Rabinou (radiologist and nuclear medicine diagnostician) who was sitting at a neighboring booth, explained to me about the radioactive scans. The kidney scan was made with mercury-197 neohydrin. The left kidney showed no function whatsoever, which Dr. Zimmerman found to be mystifying. This could be due to edema induced by the retrograde examination (cystoscopic examination) or, of course, it could be due to involvement of the renal artery or vein which would not be so good. They previously made an IVP (intravenous pilogram) and, of course, the retrograde pilogram (the cystoscopic examination). The scan of the right kidney showed normal function. The liver scan was made with iodine-131 rose bengal. This was normal, showing no function impairment or space-occupying growth.

Dr. Zimmerman told me that he had talked to Dr. Henry Jaffe (head of the Radiology and Nuclear Medicine Department at Cedars of Lebanon Hospital) by phone. Dr. Jaffe agreed now that surgery was the right thing to do. He had suggested radiation treatment earlier after talking to Dr. Attyah, who gave him the impression that she had only about a 30% chance of surviving surgery.

After lunch I met Dr. William Henry (Chief of Staff) and Sister Christine (Hospital Administrator). Dr. Zimmerman then took me on a tour of the Department of Radiation and Nuclear Medicine. It is a well-equipped department, with 250 keV x-ray, 20,000-curie cobalt-60, 1 gram radium, modern equipment for radioactive scans of all kinds, a Mo-99, Tc-99 source, etc.

Following this tour, about 1:45 p.m., Dr. Zimmerman checked on the progress of the operation and told me while I was waiting in the second floor waiting room

that it was nearly over--they were sewing her up. About 2:10 p.m. Dr. Hamilton, Dr. William Wilson (St. Francis Hospital urologist who stood by at the operation), Dr. Dreher, and Dr. Kirkpatrick (the lady anaesthesiologist who had charge of the anaesthesia at the operation) came into the waiting room to report to me. Dr. Hamilton said that Mom withstood the operation well, her heart and breathing were okay. She was a little anaemic, about 11.4 mg. She bled somewhat during the operation and was given about a pint of blood. Dr. Hamilton told me that they found multicentric cancer. This means that they found at least two kinds of carcinoma. One was transitional, as expected, the other renal cell.

They then took me down to the Pathology Laboratory (Dr. Robert Hufner, head pathologist) where Dr. Joseph Carberry (the pathologist on the job) showed me Mom's kidney. Drs. Hamilton, Wilson and Dreher were present. Basically, it represented bad news. There were present at least two renal cell carcinomas (also known as hypernephroma, Grawitz's tumor, cortical or clear cell carcinoma) which includes growth into the renal vein. (This latter suggests the strong possibility of metastasis occurring, if not already, then sometime in the future.) I also saw several small separate gelatinous ball-like transitional tumors. Actually it was the renal cell tumors that had been bleeding. Also present was a retention cyst or two.

All in all, it was about as complicated a kidney as they had ever seen. They did feel that it is still possible that it will be slow-growing or slow in spreading. Dr. Wilson assured me that Dr. Hamilton had performed a practically perfect operation under the circumstances. Dr. Hamilton said that it turned out that the operation was the correct course of action. He said the operation turned out to be a more complicated operation than he anticipated but said he was satisfied that technically it went about as well as could be expected.

I thanked the doctors and then went out to take a walk, returning about 2:40 p.m. Ray, Jeanette, and Ray's son Tommy, met me in the waiting room about 2:45 p.m. They had been to Mom's house to deliver her belongings which Jeanette had retrieved when Mom left Room #405, and had had a smorgasbord lunch near their Long Beach home which they also visited (delivering there a roll-away bed from Mom's garage). We all waited in the waiting room on the second floor, the surgery floor, preparatory to seeing Mom in the Intensive Care Unit which was also on the second floor. She was taken from the operation recovery room to the Intensive Care Unit about 4:30 or 5 p.m.

Jeanette and I visited her there about 5:15 p.m. and Dr. Hamilton was there by then. Mom looked pretty bad and complained of pain in her back and wanted to be moved to her side. She also complained about the air conditioning and being too cold; the nurses promised to move the bed and give her a blanket. Dr. Hamilton asked the nurses to do this. He said he would get a blood count and maybe give her another blood transfusion (not done). She had received one pint of blood during the operation and another in surgical recovery.

Jeanette, Ray, Tommy and I ate at the Jubilee coffee shop. Then, about 8:30 p.m., we went to the hospital where we were allowed to see Mom about 9 p.m. She seemed better than when we saw her in the afternoon. She had been moved from beneath the air conditioner outlet and a couple of blankets had been placed over her. She was being fed dextrose intravenously and still had the oxygen tube in her nose. The nurse said she would be given some pain killer but not too much because she must keep moving to some extent to keep from developing pneumonia. The nurse also said that Dr. Attyah had seen her and said she was doing all right. She seemed alert, understood when we said she would be in pain for a few days, asked what time it was, said it was time to go to bed, and when we said

good night she said she would see us tomorrow and asked if Jeanette was going to work tomorrow.

Jeanette and Ray drove me back to the motel.

Wednesday, July 3, 1968- Los Angeles

I had breakfast in the Jubilee coffee shop.

I then read AEC papers which arrived last night, until Jeanette arrived about 11 a.m.

We then went to the Intensive Care Unit at St. Francis Hospital where we found Mom sitting up. They were making her do this and move in bed to try to forestall pneumonia. She looked much better than she did yesterday afternoon and evening. She even suggested the place where Jeanette and I should eat lunch and we followed her advice.

We went to the Pathology Laboratory and talked to Dr. Carberry who told us the tests of the tissue show spread of the cancer cells in the area of the kidney. He was particularly worried by the fact that they found invasion of the renal vein, which can lead to metastasis. However, he said the spread could possibly be slow, although not likely, and she might very well outlive her cancer and die first from other causes.

We then went to visit Dr. Zimmerman to discuss the case further with him. He tends to recommend a strong radiation treatment (5500R) to the affected area to commence in two or three weeks after the operation is more completely healed (it actually heals in five or six days). He will consult Dr. Jaffe about this and, of course, keep me informed and get in touch with me by phone to discuss it further before starting. He would stop the radiation at any point where Mom was showing bad effects.

I then called Helen and told her that Mom is looking better sitting up, but the long-range prognosis is not clear.

Jeanette and I then had lunch at Jack's (on Florence Avenue at California Avenue in Walnut Park), the place Mom had recommended.

I then got a haircut at Joe's Barber Shop (on California Avenue at Liberty Boulevard).

Jeanette and I then went to visit Mom in the Intensive Care Unit. A letter had arrived from Pete which Jeanette read to her and this pleased her very much. I told her about my call to Helen and told her about Pete's summer course at Harvard and his plans to go to Berkeley (which he mentioned in his letter), and described Lynne's, Dave's, Steve's, Eric's and Dianne's grades in school. We managed to reduce the air conditioning flow even more, at her request, by drawing a sort of curtain between the ceiling outlet and her bed.

Jeanette drove me back to the Jubilee Motor Inn. I took a walk down Long Beach Boulevard to Southern Avenue and back.

I had dinner with Jeanette and Ray at the Jubilee coffee shop. We went to the hospital about 8 p.m. and saw Mom for a few minutes in the Intensive Care Unit where we met Dr. Hamilton. Jeanette and I went downstairs where we had a nice long talk with Dr. Hamilton. He told us that he thought that the cancer had 006

been fast-growing and recent, and that Dr. Carberry now wasn't so sure that it was two kinds--it could be only one kind. He still worries about the involvement of the renal vein and artery and said it is a fast-growing kind that could easily metastasize.

He agrees that radiation should be tried and would start in about a week or ten days (sooner than suggested by Dr. Zimmerman) by irradiating the renal vein and artery area from the back, thus not involving as much the healing area of the operation. We discussed where she might be during the period of radiation treatments and he thought he could arrange to put her in the Progressive Care Area of St. Francis Hospital for a period that would amount to a total of about a month counting from about the present. He said he could justify this on the basis of her age, lack of care, and transportation from home. He will have to convince the St. Francis Hospital authorities, but he thinks he can do it. He will keep in touch by phone. He has been a little concerned about her urinary function. This morning he gave her 100cc of 20% mannitol to test this and this test came out all right. He now thinks this will be all right.

Jeanette, Ray and I visited the Progressive Care Area on the second floor and were favorably impressed by it. She will go to the Surgical Ward in the second floor for a period of a week or ten days before going to the Progressive Care Area.

We went back to see Mom about 9 p.m. She was asleep. We awakened her but stayed a minute, saying we would see her tomorrow at 11 a.m.

She has started to eat a little. She had jello for breakfast, broth and jello for lunch, jello and apple juice for dinner. She is still receiving dextrose intravenously.

Jeanette and Ray drove me back to my motel.

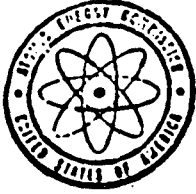
In my absence there were held a 10:30 a.m. Information Meeting 874, a 10:50 a.m. Regulatory Information Meeting 302, and a Commission Meeting 2331 (notes and action summary attached).

Thursday, July 4, 1968- Los Angeles- D.C.

I had breakfast in the Jubilee coffee shop. Then I continued reading the AEC papers that arrived the night before last.

Jeanette and Ray came by about 11 a.m. and we went to see Mom in the Intensive Care Unit of the hospital. She had been sitting up for about 45 minutes after eating a light breakfast. The nurses needed to give her some help for personal hygiene so we went out into the hall, where we were joined by Drs. Hamilton and Dreher.

Dr. Dreher reminded me that he had majored in chemistry at Berkeley (graduating with honors in chemistry) and had taken undergraduate chemistry research under me in the fall of 1941. I had asked him to look for iron as a fission product of uranium. He graduated in December 1941, then worked as a chemist at Shell Development until 1944, and then came east to go to medical school. He set up practice in 1949, went into the Army for two years, and then started medical practice again in 1953, when he first saw Mom. Dr. Ervin Dreher is the brother of a fellow chemistry student of mine at UCLA - Len (Leonard) Dreher. Dr. Dreher said he and his children enjoy getting my speeches. I told Dr. Hamilton I would send him my speeches, also. We discussed Mom's situation again. I told



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WASHINGTON, D.C. 20545

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NOV 86

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July 3, 1968

INFORMATION MEETING 814

10:30 a. m., Wednesday, July 3, 1968, Room A-458, Germantown Headquarters

1. Staff Report on Visit to the Dimona Site

\* \* \* \* \*

2. Limitations on Number of Civilian Employees (See Bureau of Budget Bulletin 68-15 dated June 28, 1968)

Staff discussed the basis of the appeal of 151 positions which will be reviewed with the BoB on Friday, July 5. The Commissioners requested:

- a. An estimate of the effect of regulatory staff cuts on the time scale of case reviews;
- b. A call to Mr. John Conway to suggest a supporting letter from the JCAE to the BoB; and
- c. Identification of program areas susceptible to work reduction and transfer of personnel. (DC-AGMA)

3. AEC 851/26 - Extension of Certain Advisory Boards

Approved. (PER)



4. Commissioner Tape's Report on His Meeting with the Lab Directors, June 29-30, 1968

5. Resignation of Mr. Nat Welch , Federal Representative to the Southern Interstate Nuclear Board

Mr. Welch will be in Washington for appointments with the Commissioners and others , July 9 and 10. (SECY)

6. NTS Events (See General Giller's June 27 and July 2 Memoranda)

Noted. (AGMMA)

7. Agenda for the Week of July 8, 1968

Approved. (SECY)

8. Commissioners' Meeting with the Japanese Atomic Energy Commission July 15 and 16 (

Scheduled. (AGMIA-SECY)

9. Senate Foreign Relations Committee Hearings on the Nuclear Proliferation Treaty

The tentative schedule of testimony is ACDA on July 10, JCS on July 11, and the AEC on July 12 or 15. (CONGR-SECY)

10. Commissioners' July 8 and July 11 Meetings with the General Advisory Committee

Noted. (SECY)

11. Ceremony Plan for Hafstad-Joslin Award (See Secretary's July 1 Memorandum)

Approved with a possible change. (SECY)

12. Certification of Appreciation for Duane C. Sewell (See Secretary's June 28 Memorandum)

Noted. (SECY)

13. Special Citation Award Ceremony for Capt. C. L. Tyler, USN (Ret.) (See Secretary's July 1 Memorandum)

Approved. (SECY)

14. Commissioners' Schedules for July 29 to August 30, 1968

Noted. (SECY)

15. A Meeting of the Commissioners with the AEC Interns Scheduled for the Afternoon of September 6, 1968.

(SECY)

16. Mr. Kratzer's July 13 Memorandum re Canadian Export of Nuclear Installation to Romania

Approved. (AGMIA)

17. AEC 901/361 - Czechoslovak Exchange Participant at Stanford Linear Accelerator Center

Noted.

18. AEC 783/94 - S. 1035 - Protection of Civilian Employees in the Executive Branch

Approved. (GC)

19. AEC 89/106 - Proposed Employment of British National at LASL

Approved. (AGMIA)

20. AEC 896/12 - Request for Purchase of Plutonium by Japan

Approved. Approval procedure is to be reviewed. (AGMIA)

21. Personnel Item

Staff will prepare appropriate certificates. (AGM)

22. AEC 1037/41 - Cooperation with Romania

Noted.

23. Dr. Fritsch's Report on June 25 Visit of the Yugoslavian Ambassador with the Chairman.

24. Pending Contractual Matters Report No. 264

Noted. (PAR)

25. AEC 333/53 - Nuclear Technology Summer Studies

Noted with a request. (EAGM)

26. AEC 111/78 - Implementation of AEC 111/64 - Recommendations to Strengthen Security and Classification Programs

Noted.

27. AEC 1083/119 - AIF International Conference - Uranium Supply and Demand Panel

Noted with the language change. (RM)

28. Mr. Tremmel's July 1 Memorandum re Combustion Engineering Acquiring Approximately 21% of United Nuclear

A revised letter and attachment will be prepared for the Commissioners' review Friday, July 5. Commissioner Johnson will respond to the telephone call to the Chairman. (IP-SECY)

29. Senate Appropriations Committee Report on the Fiscal Year 1970 Budget Estimates
30. The General Manager's Report on Staff Discussions with Mr. R. W. Atkinson, Atkinson-Blume Aerojet, re the NTS Contractor Award.

Information on the Commissioners' Votes may be released if requested. (AGMO-SECY)

31. Personnel Transfer

Approved. (AGMO-PER)

W. B. McCool  
Secretary

12:50 p. m.

PRESENT:

COMMISSIONERS:

Acting Chairman Ramey  
Commissioner Tape  
Commissioner Johnson

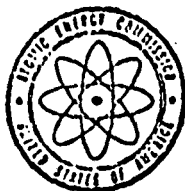
STAFF:

Mr. Bloch  
Mr. Brown  
Mr. Hennessey  
Mr. Kull  
Mr. Abbadessa  
Dr. Fritsch  
Mr. McCool  
Mr. Reichardt \*  
Mr. Pleat\*  
Mr. Vinciguerra\*  
Mr. Kratzer\*  
Mr. Tremmel\*  
Mr. Hill\*  
Mr. Erlewine\*  
Mr. Price\*  
Dr. Beck\*  
Mr. Henderson

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General Counsel  
Secretary

\* Partial Attendance



UNITED STATES  
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 WASHINGTON, D.C. 20540

REGULATORY INFORMATION MEETING 302

10:50 a.m., Wednesday, July 3, 1968, Room A-458, Germantown Headquarters

1. Dr. Beck's July 1 Memorandum re Reply to ANS Letter of May 14 re Role of ANS in Standards Development

Approved. (ADRA)

2. Topics for Discussion at the Commissioners' Meeting with the Advisory Committee on Reactor Safeguards, 2:30 p.m., Friday, July 12, 1968, D. C. Office

Noted. (SECY)

3. Possible Contract with J. R. Blume

4. Commissioner Ramey's June 28 Memorandum re Proposed Committee - In-House Study of the Regulatory Program

Approved. Commissioner Ramey said study objectives and priorities should be established soon and requested preparation of a draft press release and letter to the Joint Committee. (DR-Chm. AS&LBP-SECY)

\* \* \* \* \*

2. Limitations on Number of Civilian Employees (See Bureau of Budget Bulletin 68-15 dated June 28, 1968)

Staff discussed the basis of the appeal of 151 positions which will be reviewed with the BoB on Friday, July 5. The Commissioners requested:

- a. An estimate of the effect of regulatory staff cuts on the time scale of case reviews;
- b. A call to Mr. John Conway to suggest a supporting letter from the JCAE to the BoB; and
- c. Identification of program areas susceptible to work reduction and transfer of personnel. (OC-AGMA)

W. B. McCool  
Secretary

11:15 a. m.

PRESENT:

COMMISSIONERS:

Acting Chairman Ramey  
Commissioner Tape  
Commissioner Johnson

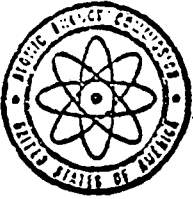
STAFF:

Mr. Price  
Dr. Beck  
Mr. Henderson  
Mr. Hennessey  
Mr. Yore  
Dr. Fritsch  
Mr. McCool  
Mr. Bloch \*  
Mr. Brown \*  
Mr. Kull \*

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Dir/Regulation  
General Counsel  
General Manager  
Secretary

\* Attendance by Topic(s)



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MOV 05

July 5, 1968

E. J. Bloch, Acting General Manager

Approved \_\_\_\_\_  
Date \_\_\_\_\_  
E.J.B.

ACTION SUMMARY OF MEETING 2331, WEDNESDAY, JULY 3, 1968, 2:40 P.M.,  
ROOM A-410, GERMANTOWN, MARYLAND

SECY:EGE

Commission Business

1. Minutes of Meetings 2316, 2317, 2318 and 2319

Approved, as revised. (SECY)

2. AEC 141/98 - Underground Test Program and Public Information Plans

- a. Effect of Pahute Yield Limit on High Yield Test Program

Discussed.

The Commissioners requested staff provide information on the minimum time-table of necessary pre-test activities. The Commissioner also requested staff maintain the planned schedule for the Spartan related tests, advise the laboratories of necessary restructuring in the order of the other tests and provide cost and time-loss information on the drilling of extra emplacement holes in Central Nevada.

(MA/PI)

- b. Calibration (Site Proof) Event for Amchitka

Noted.

- c. Technical Briefing on Safety Aspects of Testing

Discussed.

Commissioner Johnson may attend. The Commissioners noted staff would provide the technical briefing papers for future Commission review and consideration. (MA/PI/SECY)

July 5, 1968

d. Post-BOXCAR Test Public Information - Implementation

Discussed.

The Commissioners requested the briefing for the newsmen occur relatively soon after the technical briefing. The Commissioners also requested staff carefully consider the sites to be shown to the newsmen, avoiding the Faultless Site and Yucca Flats, and suggested plans for the execution of a small test in conjunction with this briefing be considered. (MA/PI/C)

e. Classification of Information Involved in the Briefing of Newsmen and Scientists on the Safety Aspects of Testing

Discussed.

The Commission will consider the classification of material to be used in conjunction with the briefing papers. (MA/PI/C)

3. Briefing by DMA on Interim Safety Rules

Discussed.

The Commissioners requested staff provide information on the rationale for the granting of interim safety rules for all modifications to weapons. (AGMMA)

4. AEC 907/35 - AEC Response to Accidents Involving Weapons in DOD Custody

Approved. (MA)

5. AEC 262/127 - Future Program of the duPont Laboratory at Savannah River  
(See also AEC 262/128)

Deferred.

6. BOXCAR Film

Original signed  
W. B. McCool  
W. B. McCool  
Secretary

cc:  
Commissioners



Dr. Hamilton that Dr. Jaffe would serve as a consultant to Dr. Zimmerman, which met with Dr. Hamilton's full approval. Dr. Hamilton again reiterated his pessimism with respect to the strong possibility of the spread of the cancer. We talked for about half an hour.

We then went in to see Mom and found her looking fine. We told her that we might join the Johnsons at a picnic at South Gate Park and that we would see her after lunch. Dr. Hamilton told us that Mom's progress was so good that he was transferring her to a regular room (Room #303) which is across the hall from Nurses Station #3 North so the nurses can keep a watch on her.

Jeanette, Ray and I hunted for the Johnsons in South Gate Park but could not find them. We bought some food at a snack bar and had a picnic lunch of our own.

We then returned to the hospital and visited briefly with Mom just prior to her transfer to Room #303. (We went up before lunch to have a look at this room and it looked fine--no air conditioning, which suits Mom better.)

I said goodbye to Mom. Jeanette and Ray drove me to the airport where I caught TWA Flight No. 98, leaving Los Angeles about 3 p.m. and arriving at Dulles Airport about 10:15 p.m.

#### Friday, July 5, 1968- Home

I read AEC papers at home.

In the afternoon Helen, Steve, Eric, Dianne and I went to Glen Echo Amusement Park. Later, Steve, Eric, Suki and I took a hike in Rock Creek Park--on the White Horse Trail to Cross Trail #2, on the Black Horse Trail and Cross Trail #3.

#### Saturday, July 6, 1968

I read AEC papers most of the day.

Eric and I played six holes of golf at the Chevy Chase Club.

I called Jeanette in the morning. She said Mom is recovering from her operation very well.

#### Sunday, July 7, 1968

I read AEC papers. I spent a good deal of time on my testimony and supporting material for the Senate Committee on Foreign Relations hearings on the Non-Proliferation Treaty at which I am to testify next Friday or the following Monday.

Eric and I played nine holes of golf at the Chevy Chase Club.

Barry Jagoda of NBC Radio called me at home regarding the recently announced French atmospheric nuclear weapon test. He recorded a few remarks I made, along the lines that we weren't surprised by the test; we are, of course, concerned, but do not feel that fallout will create a serious problem.

Monday, July 8, 1968- Germantown

I had lunch with Fritsch and Rubin at 12:30 p.m. in the cafeteria.

At 2:15 p.m. I presided over Information Meeting 815 (notes attached) and at 4:15 p.m. over Executive Session (Adjudicatory) 173 (action summary attached). At the Information Meeting the Commissioners discussed for the first time a concept that a government corporation, with power to sell bonds, be formed to operate the AEC's gaseous diffusion plants. This would have the advantage, among other things, that it could pay for the Cascade Improvement Program, which is very expensive and for which it would be difficult to get BOB and congressional approval.

At 5 p.m. I attended a meeting of the Executive Committee of the Principals in the Secretary of State's Conference Room. Present were Rusk (Chairman), Katzenbach, Foster, Fisher, Clifford, Nitze, Warnke, Scoville, Helms, Wheeler, Bohlen, and Benjamin Read and John P. Shaw of the State Department.

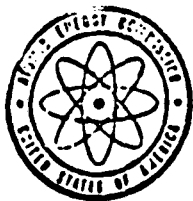
Rusk opened the meeting by saying that its purpose was a preliminary consideration of what is rapidly becoming a very important subject, namely, further arms limitation in the field of strategic missiles. He said that President Johnson had worked hard on Russian Premier Alexsai Kosygin at the Glassboro meeting last year in order to get started on this. He went so far as to suggest to Kosygin that he could have McNamara appear the following Wednesday in Moscow to begin discussions on this important subject.

Rusk said that it is imperative that we bring the arms race under control. He said it is a very complicated subject, probably the most complex since the war, and discussions could go on a long time. The Soviets haven't indicated a time when they would like to start discussions. Foster will leave on Thursday, July 11th, for Geneva for the reopening of the 18-Nation Disarmament Conference (ENDC). Foster will immediately have a talk with his Soviet counterpart, Roshchin, but it is not known whether Roshchin will bring this up at that time. In his statements on the subject Kosygin has used the term "near future" with respect to the start of the discussions, and there is some question as to just what that means. Rusk said that he is seeing Ambassador Dobrynin at 6 p.m. today, at Dobrynin's request, but he does not know what the subject of the discussion will be.

Rusk said that the Executive Committee of the Principals will be responsible for working out the basic position, and they will be aided by a working group, consisting of designees of the members of the Executive Committee, and chaired by Adrian Fisher. He said we were not assembled today to make final recommendations, but to discuss our possible position, with the discussion to be based on the basic position paper and the draft opening remarks for the ENDC, which were circulated as a top secret paper preparatory to this meeting.

Rusk then asked Clifford whether he had any comments to make; he said he had a few general comments. He said he thought useful work has been done in preparing the documents concerning the U.S. position in this important area and that he has read these carefully. He said he is of the opinion it is too early to do much more in the U.S. opening statement than to be exceedingly general. He thought we shouldn't start by making any concessions. He thought the first meeting might be limited to administrative details, such as where the meeting would be held, who would attend, how we would handle the press, etc.

Clifford said he would like to hear the Soviet views before we state our views. He would like to have them demonstrate that they are sincere, which he thinks 018



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COPY NO. 2  
July 8, 1968

INFORMATION MEETING 815

2:10 p.m., Monday, July 8, 1968, Room A-458, Germantown Headquarters

1. Report on July 5, 1968, Meeting with BOB re Personnel
2. Commissioners' Tentative Out-of-Town Commitments July 29, 1968, to September 13, 1968

Noted. (SECY)

3. June 27 Letter from Mr. James E. Webb, Administrator, NASA, re Safety Review for SNAP 27/ALSEP System

The Commissioners agreed staff should follow the procedures outlined in Mr. Webb's letter for review of the SNAP 27/ALSEP and the SNAP 19 NIMBUS B System and requested action be held on Mr. Webb's request to formalize the permanent review procedure at this time. (SNS)

4. AEC 1000/125 - Interagency Safety Review Procedure for SNAP 27/ALSEP and Other Systems

Approved. (SNS)

5. July 2 Letter from Jack Horton, Southern California Edison, re Suggested Dates for Meeting with Policy Committee on Atomic Energy

Tentatively scheduled week of August 26. (IP-SECY)

6. July 3 Letter from T. C. Runion, Nuclear Fuel Services, re Additional Fuel Load Requirements

Mr. Bloch said a staff report will be scheduled next week. (AGMP&P)

7. AEC 907/36 - Disposal of the Contaminated Residue from the Thule Accident

Approved with changes in the letters. (AGMMA)

8. AEC 1283/7 - Draft Program Memorandum for Space Propulsion Program

Approved. (OC-PAR)

9. AEC 1043/10 - Canadian Technical Exchange

Approved. (AGMR)

10. AEC 544/82 - Federal Radiation Council Activities re Radiation in Mines

Noted with a request for staff evaluation of the contractor. (DC)

11. AEC 972/14 - Publication of AEC History, Volume II

Approved subject to submission of further information. (DC)

12. AEC 671/24 - Management Discussions at NRTS

Discussed and to be rescheduled. (RDT-SECY)

13. AEC 1037/42 - Exchange with USSR of Technical Reports in Controlled Fusion

Noted with a request for further information. (R)

14. AEC 1096/91 - 200 BEV Accelerator: Detailed Obligation and Cost Estimates

Approved with an addition. (OC)

15. AEC 478/100 - Official Representation at Opening of AEC Demonstration Centers in Argentina and Korea

Staff noted the international exhibit planning schedule does not include a possible commitment to Romania. The Commissioners suggested AEC representation by staff for the September 9 opening at Seoul, Korea, and Commissioner Johnson will consider attending the October 5 opening at Cordoba, Argentina. (TI-AGMLA-SECY)

16. Proposed Letter to Department of Justice on Acquisition of United Nuclear Stock by Combustion Engineering

Commissioners Ramey and Johnson plan to see Messrs. Santry and Zinn tomorrow and the letter is to be rescheduled for consideration on Friday, July 12. (IP-SECY)

17. Luncheon Information Meeting 12:30 p.m., Friday, July 12, D. C. Office

Scheduled. (SECY)

18. July 3 Draft Letter from Mr. B. R. Dorsey, President, Gulf Oil, re Meeting on June 3 between AEC and Gulf Final letter dated 8/6/68 attached to 9/9/68 diary, which was the date received by AEC.

In staff review. (AGMR)

19. Historical Guide to the History of the AEC in the Johnson Administration (See Mr. Brown's July 2 Memorandum)

Noted. Changes are requested. (AGM-SECY)

20. AEC 1283/8 - Draft Program Memorandum for Production of Special Nuclear Materials Program

Approved. In response to the Commissioners' comments re studies, staff reported these are under way. (OC-PAR)

21. Chairman's Statement for the Senate Hearings on the Non-Proliferation Treaty, 10:00 a.m., Friday, July 12 (See Mr. Labowitz' July 5 Memorandum with Attachments)

Noted.

22. Possible Outage of Reactor at Hanford
23. Intelligence Report
24. Attendance of a Commissioner at the Technical Briefing on the Test Program, NTS

Commissioner Johnson will try to attend. (AGMMA-SECY)

W. B. McCool  
Secretary

4:15 p. m.

PRESENT:

COMMISSIONERS:

Chairman Seaborg  
Commissioner Ramey  
Commissioner Johnson

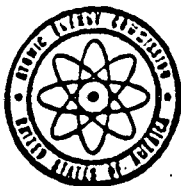
STAFF:

Mr. Bloch  
Mr. Brown  
Mr. Hennessey  
Mr. Abbadessa  
Mr. Kull  
Dr. Fritsch  
Mr. Rosen  
Mr. O'Donnell  
Mr. McCool  
Mr. Price\*  
Mr. Henderson\*  
Mr. Bostock\*  
Dr. Kavanagh\*  
Mr. Klein\*  
Gen. Giller\*  
Mr. Shaw\*  
Dr. McDaniel\*  
Mr. Kinney\*  
Dr. Friedman\*  
Mr. Tremmel\*  
Mr. Baranowski†  
Mr. Slaton\*  
Mr. LeGassie\*

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Commissioners  
General Manager  
General Counsel  
Secretary

\*Attendance by Topic (s)



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

July 9, 1968

File

ACTION SUMMARY OF EXECUTIVE SESSION (ADJUDICATORY) 173, MONDAY, JULY 8, 1968,  
4:15 P.M., ROOM A-458, GERMANTOWN, MARYLAND

1. Kosciusko Municipal Separate School District and State Department of Education of Mississippi, Docket No. CR-521 (DHEW) (See Secretary's June 27 Memorandum)

The Commission approved for issuance a Decision affirming the action of the DHEW Reviewing Authority in the Matter of Kosciusko Municipal Separate School District and the State Department of Education of Mississippi.

Noted the submission of Reports to the JCAE would be coordinated with DHEW. (OGC)

2. Winona Municipal Separate School District and the State Department of Education of Mississippi, Docket No. CR-331 -- Compliance Proceeding Under Title VI of the Civil Rights Act of 1964 (See Secretary's July 2, Memorandum)

The Commission approved the Initial Decision in the matter of Winona Municipal Separate School District. (SECY)

Noted the submission of Reports to the JCAE would be coordinated with DHEW. (OGC)

F. T. Hobbs for

W. B. McCool  
Secretary

cc:

Chairman Seaborg  
Commissioner Ramey  
Commissioner Tape  
Commissioner Johnson  
General Counsel  
Solicitor  
Asst. to the Gen. Mgr.

needs to be proved. However, he did say that he is impressed by the letters that have been written by Kosygin to President Johnson. He would like to know that the discussions will not be used in just whatever way might be of specific value to them.

Clifford then went on to discuss some of the areas in the basic position paper more specifically, saying that he might have a different opinion than the paper in some cases. He mentioned the area of verification and wondered whether the Russians intend something new in verification. He said he would hope to fall back to the posture of unilateral verification as a second or third position, and not the opening position. He emphasized that we must be certain we are not jeopardizing our country's national security. He didn't think we should start with some of the positions assumed in the basic position paper, but that we might talk it out and reserve these positions for later discussions.

Clifford then asked Nitze whether he would like to add anything; Nitze indicated that he thought that Clifford had covered the main points very well. He said he feels that we must understand fully each proposal and, therefore, perhaps we need a fact sheet on each issue that we could all agree on before surfacing positions on these issues in the discussions with the Soviets.

Rusk then called on Wheeler, who said he thought the issues of verification and the question of what are the important parameters in the missile are most important. He also said he would like to have a separate paper on each issue.

Rusk, in responding to the views of the representatives of the Department of Defense, said he feels it would be necessary to have an opening statement that is substantive, and not merely devoted to administrative details. He said we have been pressing for the talks and we would be in an untenable position if we didn't have anything definite to propose. He emphasized that, of course, we all have the security of the U.S. foremost in our minds. However, the way things are going in the arms race, both sides have an increasing degree of insecurity. Furthermore, it would be unfortunate to spend all the resources that would be necessary if we continue on the present paths.

In speculating about the Soviet motives, Rusk said that perhaps the worst situation would be if the Russians only wanted to undertake these talks in order to impress the non-nuclear nations and didn't have any serious intention to pursue them to a successful conclusion. Or, perhaps even a worse situation than this would be if they make some far-reaching nuclear disarmament proposal which would be so far-fetched that it would be made only for the purpose of seeking an advantage in the propaganda field.

Rusk then asked Bohlen what he thought the Soviet motives were. Bohlen indicated that either of Rusk's suggestions were possibilities, that it was difficult to judge the Soviet motives but they might, in fact, be quite honest. Rusk indicated that he thought verification would be an important issue, both in the Executive Branch and in the Legislative Branch, and he called on Helms to indicate the present status of unilateral verification.

Helms said that, at Wheeler's request they are going to bring the study on verification up to date. The study was made a year ago, and this updating is due by July 18th. He referred to the figures concerning Soviet capability, which are used in the basic position paper, and said that these must be carefully studied and generally agreed upon before they appear in any final basic position paper.



Rusk then called on Foster, who started by saying that the Department of Defense view that we are in a new kind of ballpark requiring all of this new study by means of position papers is a strange view. He said we have been at this for years. He said we need to have a definite position. The Russians may return to the position of the "Gromyko Umbrella," that is, the position in which they insist that all arms be disposed of in a short period of time, such as three years, and it would be necessary to have something definite to counter such unrealistic proposals. Rusk said, rather nostalgically, that if we could somehow solve the problem of verification perhaps the best solution of all would be to return to the old Baruch plan. Foster, in an attempt to partially meet the objections of the DOD to the basic position paper, thought that perhaps this paper could be concluded at the end of the first paragraph of page 6, and thus leave out some of the specific proposals with respect to numbers of strategic missiles at which we would freeze, etc. Rusk suggested to Clifford that maybe he and his colleagues could draft an opening statement which would have some substance but which would still meet their objections. Clifford agreed to do this.

Rusk then called on me. I said I had just had the opportunity to read the basic position paper and the draft opening statement, and, in fact, had just finished doing so during my automobile ride from Germantown to the meeting. I said it was clearly written, and hence the specific proposals are quite understandable. I said I understand there is no limitation suggested on the "front end technology" and that it would be possible to continue to develop the nuclear warheads. I indicated, as an example, that we still have a job to do on the warhead for the ABM. Rusk and Foster indicated that I was right on this and that the present proposed limitation on strategic missiles did not suggest any curtailment of research on the development of nuclear warheads. I indicated that I agreed with Rusk that the opening statement should be more substantive. I indicated that maybe it shouldn't start by offering national means for verification, but that it might be better strategically to try to achieve some degree of inspection. Bohlen, Clifford and Nitze agreed strongly with this position, indicating that it might be better not to start by suggesting national means for verification, but use that as a fall-back position.

Rusk then suggested that Clifford try to draft a positive statement and that the interagency working group also get together a draft statement. Fisher suggested that, with respect to Congress, for example, during testimony on the Non-Proliferation Treaty, we should be very general in any references made to impending discussions concerning limitations on strategic missiles. Perhaps the best posture would be just to say that the question is still under study. Rusk raised the possibility of discussing the opening statement with people on the Hill, after it has been finally agreed upon and drafted. Clifford asked whether it should be shown to the press at that stage, and Rusk indicated he thought it should not--a position with which Clifford agreed. Rusk made the plea that we not let consideration of details block major accomplishments, a shortcoming that has resulted in failure in so many previous attempts at agreements on arms limitation. Clifford announced that the head of the DOD working team would be Paul Warnke. I told Fisher that the AEC representative on the interagency working group would be Commissioner Tape.

I called St. Francis Hospital and talked first to Jeanette and then to Mother (in Room #303). She has been told that she will be given cobalt radiation treatments. She is feeling pretty good, except for some diarrhea.

I wrote to Dr. Jack G. Hamilton, my mother's surgeon, to express appreciation for the outstanding job he did in operating on my mother, and for his considerate and thoughtful manner (copy attached).

July 8, 1968

Dear Jack:

I am writing to express more explicitly my great and sincere appreciation for the outstanding job you did in the difficult operation on my Mother. My Mother, sister and I are also very appreciative of the considerate and thoughtful manner in which you handled the whole affair.

I hope you will also express our appreciation to Dr. Wilson and Dr. Kirkpatrick, as well as Drs. Attyah, Dreher, and Carberry.

I received your note of July 5, enclosing Dr. Carberry's report, and I believe I understand it, at least in a general way.

As I promised, I shall be sending you copies of some of my speeches.

I shall look forward to keeping in touch with you with respect to future treatments for my Mother.

Cordially,

(Signed) Glenn T. Seaborg

Glenn T. Seaborg

Dr. Jack G. Hamilton  
Centurywood Medical Center - Suite 302  
3737 Century Boulevard  
Lynwood, Calif. 90262

GTS:MJ  
Hamilton  
Seaborg Family

Tuesday, July 9, 1968- Germantown

At 11 a.m. I met with Nat Welch (SINB), who came on a farewell mission because he is leaving his position as Federal Representative of the Southern Interstate Nuclear Board to accept a position involving urban development in Atlanta.

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

I had lunch with Fritsch and Ruben in the cafeteria at 12:30 p.m.

At 3 p.m. I had an interview with Clyde Hall (World Book Science Service). Hall stated that he wanted to ask me a few questions in connection with a possible magazine article (article was never published). He referred to my 1960 article on "Centers of Excellence" and noted I was with NSF at the time the article was published. The principal questions Hall asked related to the advantages of university development grants versus specific project grants in terms of carrying out my theme in the article about developing centers of excellence. I indicated that there is need for both and agreed with Hall that reasonable progress on the ideas in my article have been made. Hall asked about a recent DOD comment that basic research is not contributing anything to social problems such as hunger. I pointed out the potential in this area from agro-industrial complexes and the benefits of irradiation in food pasteurization and new improved mutations of certain grain products. Hall thanked me for my time and indicated his principal purpose was to hear my statements on the questions that he had asked.

I worked on my autobiographical article for Irving Stone's University of California centennial volume. My article is entitled "My Debt to the University of California" and will be published in Stone's book to be entitled There was Light.

I took a hike with Steve and Suki in Rock Creek Park.

I watched on TV the All-Star baseball game from the Houston Astrodome. The National League won, 1-0, on a run by Willie Mays.

Wednesday, July 10, 1968- D.C.- Chicago

After spending the morning at the "H" Street office, Fritsch and I flew to Chicago on American Airlines Flight No. 375, leaving at 12:10 p.m. and arriving at 1 p.m.

We were met by Ken Dunbar, Steve Walden and John Harris and rode with Walden and Harris to the Museum of Science and Industry. Here I participated in the exhibit on plutonium. Present were Dan MacMaster (President of the Museum), Fred Ashley (Public Relations), John Farmakes (ANL, designer of the exhibit), and Elmer Rylander (ANL). Many pictures were taken and I was interviewed by Marty O'Connor (NBC-TV) on the exhibit, the Senate NPT hearings, and the status of the 200 BeV Accelerator. I was also interviewed by Dick Lewis (Chicago Sun Times) on the funding of the 200 BeV Accelerator and the morale of the scientists.

July 9, 1968

The President  
The White House

Dear Mr. President:

I have the pleasure of submitting the regular biweekly report on significant developments in the atomic energy program:

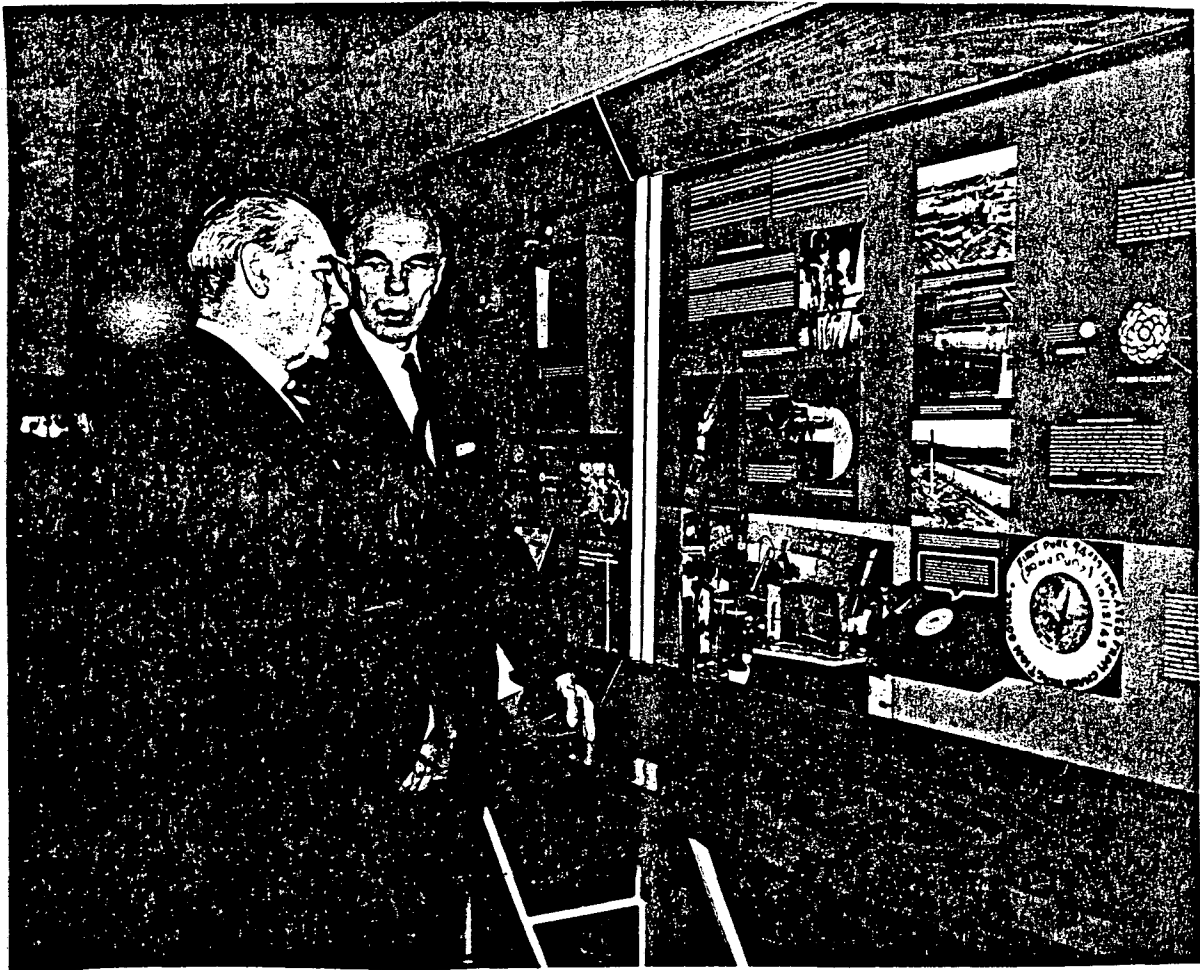
1. In ground tests on June 26 the Phoebus 2A reactor achieved the highest power level ever reached by a nuclear rocket reactor. The successful performance included operation for 32 minutes at significant power and 12 minutes at power levels above 4,000 MW. Peak power was about 4,200 MW. The power density required for the 75,000-pound thrust NLRVA I rocket was exceeded.
2. AEC and its contractors have received the National Safety Council's Award of Honor for their safety record in 1967. Our 1967 record was the safest in AEC's 21-year history, a period in which AEC has received this award eight times. Our experience in 1967 was 1.43 injuries per million man-hours worked, down from 1.54 in 1966. Of the 41 industries reporting to the National Safety Council, only the communications industry with a rate of 1.40 was lower. The average rate for all the reporting industries was 7.22.
3. A modification of the contract between AEC, the Department of Interior, and the Metropolitan Water District of Southern California will provide participants in the Bolsa Island nuclear power and desalting project an additional 90 days to determine whether they wish to withdraw from the project for economic reasons. The period during which withdrawal is permitted was extended from June 30 to September 30, 1968. On June 20, MWD reaffirmed its intention to carry out the project, and is joining with the other project participants (including the participating utilities) in investigating means to strengthen the management organization in order to more effectively prosecute the project and reduce the cost.

4. ALC and the Puerto Rico Water Resources Authority reached final agreement on June 26 to terminate the BONUS nuclear power reactor project in Puerto Rico. The project was initiated in 1966 to explore the use of superheated steam in water-cooled nuclear power plants. Major factors in the decision to terminate are AEC's decreased interest in superheat reactors as a result of industry success in developing water-cooled reactors which do not employ superheated steam, and the expense required to put the reactor in condition to operate until the end of the original contract term in 1971.

Respectfully,

Glenn T. Seaborg

cc: Bronley Smith



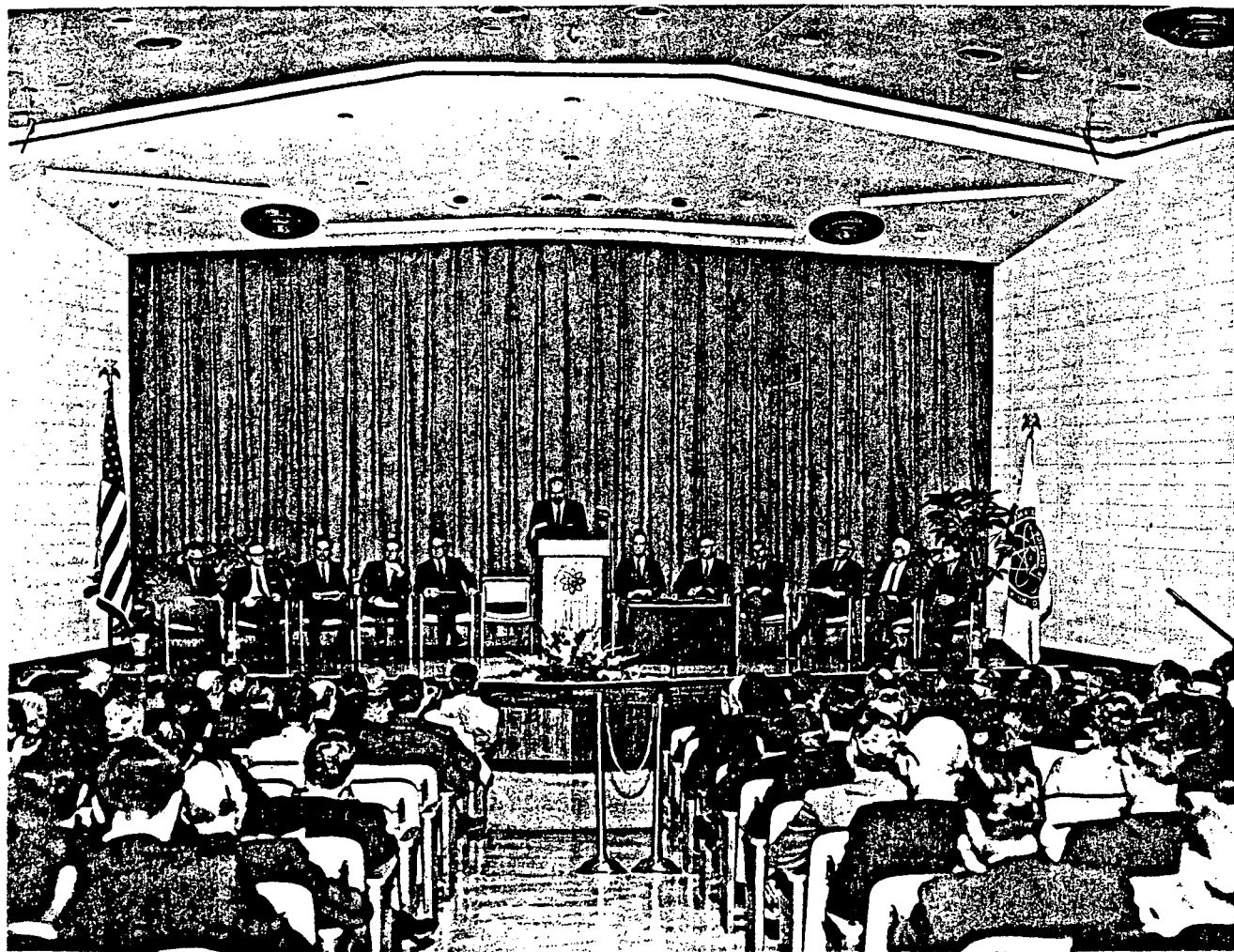
Daniel M. MacMaster and Seaborg discuss memorabilia in the new plutonium exhibit at Chicago's Museum of Science and Technology, July 10, 1968

Fritsch and I then rode with Walden and Harris first to the Evergreen Golf Club (91st and Western Avenue), which Fritsch and I walked over so that I could have my memory refreshed as to the layout. (I played golf here many times during my stay at the Metallurgical Laboratory during World War II.)

We then went to the ANL ZGS building where, after picture-taking, I presided over the presentation of the AEC Citation to Larry Hafstad (presented by Tape) and Murray Joslin (presented by Ramey). I also presented a letter of commendation to Bill Harrell in recognition of his service to the AEC (he retired from his position as Vice President of Special Projects of the University of Chicago on June 30th).

We attended a reception at the Guest House (with Tape, Ramey, Mr. and Mrs. Hafstad, Joslin and me in the reception line). Joslin's four sons and their wives, and his two daughters and their husbands attended the ceremony and reception.

Fritsch and I then had dinner at the Flame on Highway 66. The members of the GAC, who attended the ceremony today, also had dinner there. Tape and I spent the night at the ANL Guest House.



AEC Citation Ceremony at Argonne National Laboratory, July 10, 1968

Thursday, July 11, 1968- Chicago- D.C.

At 9:30 a.m. I attended and spoke at the meeting of the Atomic Safety and Licensing Board Panel in the East Room, Cafeteria Building, ANL, along with Ramey, Tape and Johnson (who had just arrived).

At 11 a.m. we then attended the 105th meeting of the GAC to hear the report of their meeting. (A copy of their report, dated July 17, 1968, is attached.) The GAC recommended the award of the Fermi Award for 1968 to General Leslie R. Groves (first choice), Norris E. Bradbury, Arne Sigvard Eklund and/or John A. Wheeler. These nominees were listed in a letter addressed to me from Hafstad dated July 11, 1968. I presented a Certificate of Appreciation to Duane C. Sewell, who is retiring as Executive Secretary of the GAC.

Fritsch and I flew back to Washington on United Flight No. 560, leaving at 12:30 p.m. and arriving at 3 p.m.

I went to the "H" Street office, arriving at 3:30 p.m. I met with Labowitz, Kratzer, Toni Joseph, and others to discuss my testimony on the NPT tomorrow before the Senate Foreign Relations Committee.

RECEIVED BY DOD  
NOV 86

GENERAL ADVISORY COMMITTEE  
TO THE  
U.S. ATOMIC ENERGY COMMISSION  
P.O. BOX 19029  
WASHINGTON, D.C. 20036

July 17, 1968

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

Dear Glenn:

The General Advisory Committee held its 105th Meeting at the Argonne National Laboratory on July 8 through 11, where it had the opportunity of discussing and touring Laboratory facilities for a major fraction of the total time.

All members of the Committee were in attendance for the entire period excepting Dr. Hall who attended for the first three days. The members of the Committee are Manson Benedict, John C. Bugher, Edwin L. Goldwasser, Jane H. Hall, Stephen Lawroski, Norman F. Ramsey, Howard G. Vesper, William Webster and Lawrence R. Hafstad, chairman. Both Duane C. Sewell and Melvin A. Harrison, the outgoing and incoming scientific officers, and Anthony A. Tomei, secretary, were also present for this meeting.

Recommendations and comments relative to this meeting are summarized below.

1) Argonne National Laboratory Program

Reactor Development

Argonne's activities on fast reactors were highlighted by descriptions of the Experimental Breeder Reactor-II (EBR-II) and of the theoretical and experimental programs in fast reactor physics.

As the only fast reactor presently available for operation in the United States, EBR-II is a uniquely valuable and absolutely indispensable facility for testing fast reactor fuel and gaining operating experience in fast reactors and their associated sodium systems. The U. S. fast reactor program today is realizing the benefits of the foresight Argonne displayed in 1954 in proposing and planning the construction of EBR-II.

Similarly, Argonne's intimate knowledge of fast reactor physics gained through a succession of critical experiments culminating in the Zero Power Plutonium Reactor and interpreted with the aid of advanced reactor theory and continually updated nuclear data is another indispensable and



truly unique contribution Argonne is making to the national fast reactor program. This contribution also has been made possible only through the foresight and persistence Argonne has displayed in remaining in the forefront of fast reactor physics research. Argonne has also led the U. S. in fast reactor safety work. The Atomic Energy Commission should do everything possible to preserve and nurture Argonne's initiative in fast reactor development.

Maintenance of Argonne's unique capabilities in the fast reactor field calls for skilled and understanding administration by the Division of Reactor Development and Technology. While DRDT necessarily determines overall goals, schedules and budgets, and must maintain rather detailed control over the operating program for EBR-II, the DRDT should encourage Argonne to exercise maximum freedom and responsibility for other phases of the fast reactor program, such as investigation of advanced fast reactor concepts. Too detailed direction from Washington could destroy Argonne's initiative. The AEC will be concerned with fast reactor development for many years, and Argonne's imaginative contribution to fast reactor techniques today will pay dividends a decade from now, just as EBR-II conceived in 1954 is proving uniquely valuable today. \*

To put it simply, Washington's role should be limited to telling Argonne what needs to be done and should not include telling Argonne in detail how to do it. //

### High Energy Physics

The Committee heard two reports on the high energy physics activities at the Laboratory. The first focused on the experimental facilities that have been provided at the Laboratory, peripheral to the Zero Gradient Synchrotron itself. The Committee was impressed anew by the fact that research at a scientific frontier advances technology in many different directions.

The Laboratory is playing a leading role in the development of large hydrogen bubble chambers with the construction of a 12' diameter chamber. The Committee had an opportunity to see the principal components of this new facility. The instrument is to be housed in the world's largest superconducting magnet, and the Argonne group is apparently particularly strong in that area. We believe that pressures for large high-field magnets for the conduct of the high energy physics program have contributed enormously to the development of this new and important technique.

The Argonne Laboratory is also playing a leading role in the development of advanced data analysis facilities, paying special attention to the man-computer interface.

The Committee was briefed on the principal high energy physics research contributions made through the ZGS program. The program has now become an extremely active one, enjoying the participation of an impressive number of university-based physicists coming from a broad spectrum of outstanding institutions.

## Physical Research

The GAC had time to review only a small selection from the extensive physical research program at Argonne including interesting research using deuterium as a tool in studying chlorophyll and a description of the strategy for studying nuclear shell theory. The excellent description of the widely different applications of the principle of ergodicity not only enlightened the GAC but also enriched its vocabulary with the useful phrase "homogeneous chaos."

## Biological and Medical Research

Time permitted the consideration of only a small fragment of the biomedical work at Argonne. Of special interest is the demonstration of what appears to be a virus in human osteosarcoma. The particles, as observed by electron microscope, bear a close resemblance to a virus previously isolated in a mouse bone sarcoma. This area of research is of growing importance and justifies a continuing effort in association with the Argonne Cancer Research Hospital.

We were pleased to learn that the Argonne Biological Research Reactor is being modified to increase its capabilities in biological work.

## Meeting with the Director of ANL

The Committee had a valuable discussion with the Laboratory Director, Robert B. Duffield, covering a number of topics. These included budgets, support for basic research, relationships with AEC Divisions, extent and type of support to other government agencies, and educational activities. Following are comments on the last two items.

In line with current policy making the facilities of the national laboratories available to other government groups under appropriate conditions, Argonne is undertaking its first environmental study in the field of air pollution. This is a survey of SO<sub>2</sub> incidence and distribution in the metropolitan Chicago area with the objective of providing a basis for SO<sub>2</sub> air pollution predictions. The work is financed principally by the City of Chicago and HEW. While this study will provide useful information, it is the hope of the Committee that the excellent inter-disciplinary scientific abilities of ANL (as well as ORNL and BNL) can be used in future studies of a more fundamental nature and more basic to the broad national problems of environmental pollution.

The Committee noted with interest the considerable educational activities of ANL. The Laboratory's plan to coordinate these further through an Argonne Educational Center in conjunction with universities in the area should improve the effectiveness of this effort.

The Committee feels the Laboratory is receiving excellent direction and is pleased with its over-all progress under Dr. Duffield. ANL is fortunate to have obtained such a high calibre director.

2) National Accelerator Laboratory Program

The Committee received an interesting briefing from Dr. Robert R. Wilson, the Director of the National Accelerator Laboratory. Although the Laboratory is only one year old, it has made impressive progress in the recruitment of a strong staff and in the development of an imaginative and economical design for the accelerator and associated facilities. Perhaps the most striking feature of the design is the capability that it provides for the established initial energy of the accelerator to be raised by a factor of two. This option can be exploited at a later date at a relatively reasonable incremental cost.

The future of the Laboratory is currently in serious jeopardy as a result of the freeze on new construction starts in the present fiscal year. Much more than a one-year delay is at stake. It would be most unfortunate, and in the long range expensive, if irreplaceable staff members were lost as a result of this imposed constraint.

3) Systems Analysis Studies for Power Reactors

In your letter you state that commitments to the Bureau of the Budget require a report from the Systems Analysis Task Force by July, 1968, and imply that this might include a number of subjects of major importance. We feel that, based on the material we have seen, it would be premature to draw conclusions on some of the subjects listed at this stage of the work. The results are so much influenced by the assumptions made that a totally misleading result might be reached at this point of the study. As a result incorrect impressions might be reached that could be difficult to eradicate or reverse. We urge that care be taken to perfect the use of this splendid tool before any substantive report is made based on the results of its use.

4) Fermi Award for 1968

The views of the Committee on this Award are contained in a separate letter addressed to you.

5) Meeting with the Advisory Committee for Biology and Medicine

The Committee was pleased to have the opportunity of meeting with the ACBM at this meeting, the first in five years. It developed that the one-half day session was insufficient, contrary to past experiences, but several topics were discussed in some detail. The report on this session is being transmitted to you in a separate letter.

6) Production of Heavy Radioisotopes

The report of an ad hoc committee on production of heavy radioisotopes as approved by the GAC is attached as Appendix I. This report responds to many specific questions that have been raised. Among these, some of the most significant are the following conclusions:

A. The Committee is strongly of the opinion that the AEC should reserve reactor capacity at Savannah River for production of heavy radio-isotopes, including californium-252.

B. During the next few years the AEC should give strong support and encouragement to:

1. Measurement of the numerous important nuclear cross-sections involved in the production of californium-252.
2. Further development of design and performance information for the proposed Resonance Reactor at Savannah River.
3. Development of design and cost information for the separation and fabrication facility which would be required at Savannah River if it were decided to produce Cf-252 at rates above 5 g/yr.

C. Because of the unique characteristics and many potential uses of Cf-252, the AEC should actively pursue and encourage development of its applications for Cf-252, and should evaluate the potential market for this material.

D. The Committee further recommends that two cycles of operation of one Savannah River reactor in the high-flux mode to produce additional quantities of americium, curium and californium be authorized. Operation of a Savannah River reactor for two cycles will produce about five times as much Cf-252 as can be made in the HFIR at Oak Ridge by 1973 for about half the unit cost.

E. With the limited quantities of Cf-252 available now and during the next few years, it may be advisable to pool all supplies from both the HFIR at Oak Ridge and Savannah River. Distribution for market survey purposes could then be made jointly by the Research and Production Divisions so as to cover the widest range of possible applications.

F. It appears to the Committee that the combined production of californium-252 from the HFIR and the planned high flux mode of operation of one of the Savannah River reactors will provide sufficient californium-252 to permit deferral, for at least one or two years, of a decision by AEC to authorize conversion of a Savannah River reactor to the resonance mode. At the end of this period, information acquired in the development program will help the AEC to determine whether and when reactor modification to the resonance mode should be made.

## 7) Thermionics

As you requested, we have had a subcommittee (ad hoc) review the Commission's thermionics program. Their report is attached as Appendix II.

The conclusions are supported by the entire GAC. The program is well conceived and is going forward effectively. While a great deal of work remains to be done, it does appear that the program objectives should be realized if present plans are carried forward and that a satisfactory space thermionics reactor in the 100-plus kwe range should be ready in the late 1970's.

The primary justification for the thermionics work is the requirement for a reliable space power source in sizes above 100 kwe. The above schedule is entirely consistent with current space program requirements, so there appears to be little justification for increased emphasis on the thermionics program at this time. In fact, it would appear quite likely that the space program might slip somewhat, thus providing a further "cushion" for the thermionics work. However, we would be strongly opposed to any cut in the thermionics work on this basis.

We do recommend that the program continue generally as presently planned, including modest increases in funding during the next several years. It might be advisable to increase the emphasis on determination of variables in diode manufacture, as this does not appear to be progressing quite as rapidly as other parts of the program.

8) Weapons Subcommittee Plans

The Weapons Subcommittee, consisting of Dr. Hall and Dr. Ramsey, chairman, plan to visit three sites on August 28, 29 and 30, 1968, as follows: Sandia, Pantex, and Rocky Flats. Mr. Vesper and other Committee members may also find it possible to participate in at least a portion of these visits.

9) Expiration of GAC Terms

The Committee noted that the statutory terms of Dr. Benedict, Dr. Bugher, and Dr. Hafstad expire August 1, 1968.

10) 106th GAC Meeting

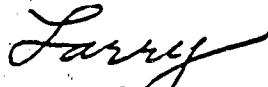
The next meeting of the General Advisory Committee will be held in Washington, D. C., on October 14, 15 and 16, 1968. Because the first day is a Monday, it will be spent at the AEC Germantown Headquarters Building, in accordance with an AEC request received earlier this year. For the other two days the GAC will meet at the H Street offices of the AEC. Some agenda topics are as follows: (1) annual meeting with the Assistant General Manager for Reactors, George M. Kavanagh; (2) session on nuclear materials safeguard matters as suggested by Delmar L. Crowson, the Director of the Office of Safeguards and Materials Management; and (3) session on reactor siting

safety criteria with Dr. Clifford K. Beck, Deputy Director of Regulation. Additional topics originated by the Commission and the GAC may be incorporated in the agenda.

11) 107th GAC Meeting

The next following GAC meeting will be held at the Oak Ridge National Laboratory on February 10, 11 and 12, 1969. Agenda topics for this meeting will be a review of the ORNL program including the Molten Salt Reactor Experiment and the Lawrence Award for 1969.

Sincerely yours,



L. R. Hafstad  
Chairman

Attachments (2)

Friday, July 12, 1968- D.C.

At 10 a.m. I testified before the Senate Foreign Relations Committee in the Old Senate Office Building on the Non-Proliferation Treaty. Present were Senators John Sparkman who presided as Chairman, Frank Carlson, John Cooper, and, by invitation, John Pastore and Clinton Anderson. Helen, Dave, Steve, Eric and Dianne were present in the audience. I gave my prepared statement, followed by friendly questions by all those present. The questions emphasized the safeguards and the peaceful uses of nuclear explosives but were wide-ranging and I was present for about an hour and a half. The Committee print will give a verbatim account of the questioning. [Testimony was printed in Hearings Before the Committee on Foreign Relations, United States Senate, Ninetieth Congress, Second Session, Treaty on the Non-Proliferation of Nuclear Weapons, July 10-17, 1968, pages 97-129.] Several Senators said I was the most important witness to appear before them.

At 12:30 p.m. I presided over Information Meeting 816 and a working lunch and at 2:30 p.m. I presided over Regulatory Information Meeting 303 (notes attached).

At a 2:45 p.m. Commission meeting with the ACRS (action summary attached) we proposed a rather far-reaching plan for the regulatory staff to use scientists in the AEC national laboratories to help in their technical evaluations. We also discussed the forthcoming in-house study of the AEC regulatory process.

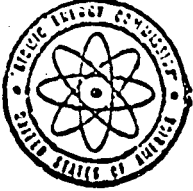
Secretary Rusk called me at 3:45 p.m. to thank me for testifying at the NPT hearings and wondered if I had any questions that appeared hostile. I said it went fairly well; there were questions on the safeguards, what can be done under Article 5 on Plowshare and whether we need modification of the LTBT. I said I thought I handled these in a way that didn't give them any ammunition. Rusk said we have been a long time coming to this point and he thinks we could feel pretty good about it.

At 4:15 p.m. I met with W. D. Mogerma of Newark, New Jersey, to give him my recollections of Zay Jeffries for the biography he is writing.

John Macy called me at 5:45 p.m. and said he has been out of town and wondered how my confirmation hearing went. I said it went fine; although there was a reference to "playing musical chairs," which was meant to embarrass. He asked about the press, and I said this was picked up primarily by the technical press. Macy said this brings us back to the fifth position on the Commission.

He had a call today from Flemming (who is a close friend of Jensen) wanting to know the status of Jensen and whether his appointment is still a possibility. Macy said he told Flemming that it is not, and explained the background; he seemed to be satisfied. Macy wondered what prompted Flemming to call, and suggested it might be a good idea for me to call Jensen again to explain that the appointment is definitely off, and that it has no adverse reflections on him, but that geographical considerations are important on this appointment. I said I would call Jensen.

Macy then said that if we are going to get a confirmation at this session of Congress, we will have to have a nomination submitted next week. He said that all the names we have discussed have come back from the President with a negative reaction. I said that we have hit the bottom of the barrel. I added that I still wish the President would accept Murray Joslin, that I presented a citation to him earlier this week and I was favorably impressed by him. Macy said he would check this out, and asked that if I have any further thoughts, that I let him know the first thing next week. 039



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

COPY NO. 2

July 12, 1968

EXCL. BY DC  
NOV 86

INFORMATION MEETING 816

12:30 p.m., Friday, July 12, 1968, Chairman's Conference Room, D. C.

1. Meeting with Hughes Organization Representatives

To be scheduled possibly July 24 or 25. (Secy)

2. Letter of Invitation to Dr. Rabi to 12th IAEA General Conference

The Commissioners noted the Chairman would sign the letter. (Fritsch/DIA) *app 7/12*

3. Non-Proliferation Treaty

The Commissioners noted Commissioner Tape would serve as staff contact on NPT developments and implementation requirements. (Rosen/SAD/DIA)

4. Mr. Zwick's July 8 Letter re Comments on PPSB

Commissioners Johnson and Ramey will meet with BOB to discuss particularly the NPR item. The Commissioners agreed to consider the High Energy Physics item further upon completion of the Study currently being prepared and requested staff develop an appropriate reply following the above discussion with BOB. (Asst to GM, PA/OC)

5. Agenda for Week of July 15, 1968

Approved. (Secy)

Commissioner Johnson requested scheduling dates for Pending Business List items. (EAGM/ADRA/Secy)

6. NTS Events (See General Giller's July 10 Memorandum)

Noted. (AGMYA)



7. Visit of Japanese Delegation (oral)
- a. Joint Communique  
Approved as revised.
  - b. Agreement in Principle  
Approved for signature at meeting Monday, July 15.
  - c. Request for 23 Tons of Heavy Water  
Noted.
  - d. Recommendation from Ambassador Alexis Johnson  
The Chairman agreed to discuss the matter.
  - e. Request for Press Conference  
The Commissioners will not participate and noted that staff would render necessary assistance to Japanese.
  - f. Arrival of Delegation Saturday, July 13 - Noted.
  - g. AEC Luncheon for Japanese, Tuesday, July 16, Commissioners' D.C. Dining Room  
Commissioner Johnson will attend.
  - h. Commissioners' Meeting with Japanese Representatives, July 16, 4:00 p.m.  
Chairman Seaborg will open the meeting and Commissioners Johnson and Tape will attend. (DIA)
8. AEC 604/110 - Radiological Hazards of Resettlement of the Bikini Atoll  
Approved. (EM)
9. AEC 460/99 - Planned USPHS Symposium  
Approved. (PNE)
10. AEC 1192/58 - Atlantic Research Corporation Contract on "Radiation Synergism for Water Treatment"  
Noted; the Commissioners approved the proposed project with the understanding a study will first be made to provide reasonable assurance of favorable economics prior to contracting for the research. Commissioner Ramey requested staff review Batelle's studies on radiation of Chicago sewage. (ID)
11. AEC 997/106 - Policy Implications of Presidential Offer of U. S. Nuclear Activities to IAEA Safeguards  
Noted. (SMM)

12. AEC 901/363 - Extension of Visit to BNL by Polish National  
Approved. (DIA)
13. AEC 89/107 - Proposed Employment of Irish National at Livermore  
Approved. (DIA)
14. AEC 89/108 - Proposed Employment of Indian National at Livermore  
Approved. (DIA)
15. AEC 89/109 - Proposed LASL Assignment of Canadian and Israeli Nationals  
Approved. (DIA)
16. Employment and Assignments of Aliens to AEC Facilities  
Commissioner Ramey requested staff assure processing through the Division of Intelligence and confirmation of this in future submissions. (DIA/I)
17. AEC 1246/7 - Proposed Letter to Department of Justice re Combustion Engineering and United Nuclear and alternate draft letter of July 11, 1968  
Approved as revised. (IP)  
Commissioner Ramey requested rescheduling of matter in about two weeks for updating of facts in case. (IP/Secy)
18. July 3 Draft Letter from B. R. Dorsey, Gulf Oil Corporation, re HTGR  
Approved as revised. (Rubin) Final letter from Gulf Oil dated 8/6/68 was transmitted by letter dated 9/5/68 and received on 9/9/68.
19. AEC 881/107 - Supplementary Fuel Load at NFS Letter attached to diary on 9/9/68.  
Approved. (P)
20. Commissioners' Meeting with ACRS, 2:30 p.m., July 12, 1968  
Discussed. Commissioner Tape will be unable to attend because of conflicting commitment. Chairman Seaborg, Commissioners Johnson and Ramey will attend.
21. July 1 Memo from Mr. Baranowski and General Giller re Transmittal and Discussion of AECOP-57, Dollars Assignable to Nuclear Materials in Weapons Systems and Their Application in the Evaluation of Alternatives  
To be rescheduled. (Secy)
22. Pending Contractual Matters Report No. 265  
Noted. (PAR)

23. AEC 972/15 - Comparison Statement on Publication of Volumes I and II, AEC History

Noted. (DC)

24. AEC 783/95 - S.2525 -- A Bill to Amend the Federal Water Pollution Control Act, and AEC 783/96 - S.3206 -- Amendment to Federal Water Pollution Control Act

To be rescheduled. (OGC/DR)

F. T. Hobbs  
Acting Secretary

2:30 p.m.

PRESENT

COMMISSIONERS

Chairman Seaborg  
Commissioner Ramey  
Commissioner Tape  
Commissioner Johnson

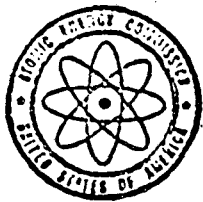
STAFF

Mr. Bloch  
Mr. Brown  
Mr. Kull  
Mr. Hennessey  
Dr. Fritsch  
Mr. Kratzer\*  
Mr. Yeomans\*  
Mr. LeGassie\*  
Dr. Totter\*  
Gen. Crowson\*  
Mr. Tremmel\*  
Dr. Kavanagh\*  
Mr. Voigt\*  
Mr. Winter\*  
Mr. Hobbs

DISTRIBUTION

Commissioners  
General Manager  
General Counsel  
Secretary

\* Attendance by Topic(s)



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

REGULATORY INFORMATION MEETING 303

2:30 p.m., Friday, July 12, 1968, Chairman's Conference Room, D. C.

Mr. Price's July 10 Memorandum re Subpoena of ACRS Members

The Commissioners agreed in principle with the proposed letter and that the matter required further consideration before formal response to Dr. Zabel. (ADRA/SECY)

F. T. Hobbs  
Acting Secretary

2:35 p.m.

PRESENT

COMMISSIONERS

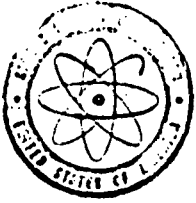
Chairman Seaborg  
Commissioner Ramey  
Commissioner Tape  
Commissioner Johnson

STAFF

Dr. Beck  
Dr. Fritsch  
Mr. Hobbs

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Dir/Regulation  
General Counsel  
General Manager  
Secretary



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

UNCL. BY DOE  
NOV 98

H. L. Price, Director of Regulation  
R. E. Hollingsworth, General Manager

July 12, 1968

Approved \_\_\_\_\_

HLP/REH

Date \_\_\_\_\_

ACTION SUMMARY OF AEC/ACRS MEETING, WEDNESDAY, JULY 12, 1968, 2:45 P.M.,  
ROOM 1050, D. C. OFFICE\*

1. Need of Regulatory Staff for Some Form of Technical Support from National Laboratories and Contractors

The Commission agreed this matter would be considered. (ADRA)

2. ACRS Review of New Reactor Concepts

Commissioner Johnson inquired if the ACRS considered itself available to assist in a review of safety aspects of new reactor concepts before the concept has been fully developed.

Several ACRS members indicated that the Committee does consider itself available to participate in such an activity.

3. In-House Study of the Regulatory Program

Dr. Zabel reported he and Mr. Mangelsdorf had met with Mr. John T. Conway, Executive Director and Representative Hosmer of the Joint Committee on Atomic Energy, to discuss activities of the ACRS and the AEC Internal Study Group. He noted this discussion had been very worthwhile.

Mr. Mangelsdorf said the first meeting of the Study Group would be held next Friday, July 19. Mr. Ramey noted his assumption the Study Group would work out the priorities of the issues the group would be reviewing; Mr. Mangelsdorf agreed. (ADRA/Chm. AS&LBP)

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\* Present were Chairman Seaborg, Commissioners Ramey and Johnson (Commissioner Tape being unable to attend because of a conflicting meeting commitment), ACRS members, and Messrs. H. L. Price, A. A. Wells, R. F. Fraley, and F. T. Hobbs.

H. L. Price  
R. E. Hollingsworth

-2-

July 12, 1968

4. Subpoenas of ACRS Members

In response to Dr. Zabel's query Chairman Seaborg said the Commission was considering this matter and would be responding in the near future. He added the Commission believed its present regulations would disallow subpoenas. In response to a query, Commissioner Ramey suggested if an actual subpoena were to become imminent or develop, the ACRS member should promptly notify the Secretary to the Commission. (GC/SECY)

5. Next AEC/ACRS Meeting (August 8, 9, 10 or September 5, 6, 7)

Dr. Zabel reported the Committee was encouraged with the recent improvement in joint meetings and hoped that topics for discussion might be identified for the next meeting in this session. He particularly wished to know whether the Commission would prefer the next joint meeting to be scheduled during the August ACRS meeting or during the September meeting in view of vacation schedules. Chairman Seaborg said August would probably be better since the September period conflicted with the Commission's budget review. It was suggested the meeting be scheduled during 8, 9, 10 August period and Mr. Price was requested to develop agenda topics.

Original signed by  
F. T. Hobbs  
F. T. Hobbs  
Acting Secretary

cc:  
Chairman Seaborg  
Commissioner Ramey  
Commissioner Tape  
Commissioner Johnson  
Chairman, ACRS

Dr. Arthur Zimmerman called me from St. Francis Hospital to say he will start radiation treatment on Mother next Monday.

I called Mother at St. Francis Hospital and she was in good spirits. She is walking up and down the hall.

Saturday, July 13, 1968- D.C.

I spent the morning at the "H" Street office. Dianne accompanied me and she spent the morning with Kerry Fritsch, who accompanied her father.

Adrian Fisher (ACDA) called me at 10:45 a.m. to say that he is going to recommend to President Johnson that he include in his message to the ENDC opening in Geneva next week in his list of measures a plea for a comprehensive test ban treaty and a complete cutoff of production of fissionable material for nuclear weapons. We had seen the text of his message yesterday afternoon and had said, through Labowitz, that we have problems with the inclusion of these two measures.

Consequently, it was decided that I would write the President an accompanying memo stating our point of view. I did so (copy attached) saying that this is the wrong time to reiterate our support of a comprehensive test ban because of our announced commitments to develop strategic offensive (POSEIDON and MINUTEMAN) and defensive (SENTINEL) missile warheads which require underground testing, and a complete cutoff of production, since we have already shut down seven out of 14 production reactors and two-thirds of our enriched U-235 production capacity and we need to make a careful appraisal of needs before plunging ahead to do more.

Fisher called me back (at home) in the afternoon saying that Secretary Rusk in view of my letter to the President (which I sent to Fisher for enclosure with his memo) asked that a second version (offering the President an alternative) of a presidential ENDC message be drafted, which didn't reiterate the two points with which AEC has trouble but simply referenced the fact that such offers had been made before. Labowitz will work with Fisher and others on the revised draft of this message tomorrow.

Dianne and I had lunch with Kerry and Arnie Fritsch, Pat Goodwin, and Pat's replacement Doris Knief at the "H" Street Hot Shoppe. (Pat is leaving at the end of this month to spend a year studying at Stanford University under AEC auspices.)

I wrote to my mother to bring her up to date on our activities (copy attached).

I played six holes of golf with Eric at the Chevy Chase Club.

Sunday, July 14, 1968- D.C.

Labowitz called and said that he has worked with Adrian Fisher and Samuel DePalma of ACDA and they have come up with an alternate version of the proposed presidential message to ENDC, which would be somewhat more acceptable to AEC. Both versions will be shown to the President. The alternate version merely recites previous U.S. statements regarding a comprehensive test ban and fissionable material cutoff but does not press for them.

July 13, 1968

Dear Mr. President:

I am writing to comment on the proposed Presidential message recommended by ACDA to Secretary of State Rusk and to you for use at the forthcoming opening of the ENDC.

I and my fellow Commissioners have problems with Presidential reiteration or endorsement at this time of two of the measures which are suggested as part of the disarmament agenda.

We feel that it would be a mistake to reiterate at this time our previously stated aim to "seek to achieve the discontinuance of all test explosions of nuclear weapons for all time." We feel strongly that this is unrealistic in view of the absolute necessity for underground testing in order to meet our announced commitments in the field of strategic offensive weapons such as Poseidon and Minute Man, and strategic defensive weapons such as the Sentinel (ABM).

Our second item of concern is a Presidential request at this time to reach agreement to halt all production of fissionable material for use in making nuclear weapons. As you know, we have shut down already seven out of fourteen of our plutonium production reactors and reduced our uranium-235 production by two-thirds. At a minimum, this would require further careful study; the last comprehensive study on a government-wide basis was made in 1964. If something needed to be said on this subject at this time, credit could be taken for what we have already done.

Perhaps these measures should be studied by the Committee of Principals before any further public statement is made on them.

Respectfully,

Glenn T. Seaborg

The President  
The White House

048



July 13, 1968

Dear Mom:

It was good to talk to you last night and to learn that you are getting along as well as you are. As I said, I have talked to Dr. Arthur Zimmerman and he intends to begin the radiation treatments on Monday.

Yesterday I testified before the Senate Committee on Foreign Relations in connection with the treaty on the non-proliferation of nuclear weapons which the Senate is considering. This is the treaty which would prohibit additional countries from manufacturing nuclear weapons and, therefore, would limit it to those countries that already have them. I am enclosing a copy of the story concerning my testimony that appeared in The Evening Star yesterday afternoon.

Everybody at home is fine. Lynne is continuing to receive wedding presents which come to our house and Helen forwards them to Cambridge. Lynne and Bill are moving to a new apartment and their address will be 6 University Road, Cambridge, Massachusetts 02138. They are still talking about going with us to Florida on our vacation next month.

I was in Chicago on Wednesday and Thursday this week to attend the opening of an exhibit on plutonium at the Museum of Science and Industry. In this exhibit they have a complete description of our discovery of plutonium illustrated with many pictures. I also attended the meeting of the General Advisory Committee of the Atomic Energy Commission which was held at the Argonne National Laboratory in Chicago. I am enclosing a clipping from the Chicago Sun Times concerning my visit.

Helen and the kids all hope with me that you continue to feel better and are very glad that you feel so well.

With love,

GTS:HG  
Seaborg Family

049

Eric, Steve and I played 18 holes of golf at the Chevy Chase Club.

I worked on my autobiography for Irving Stone's University of California centennial volume.

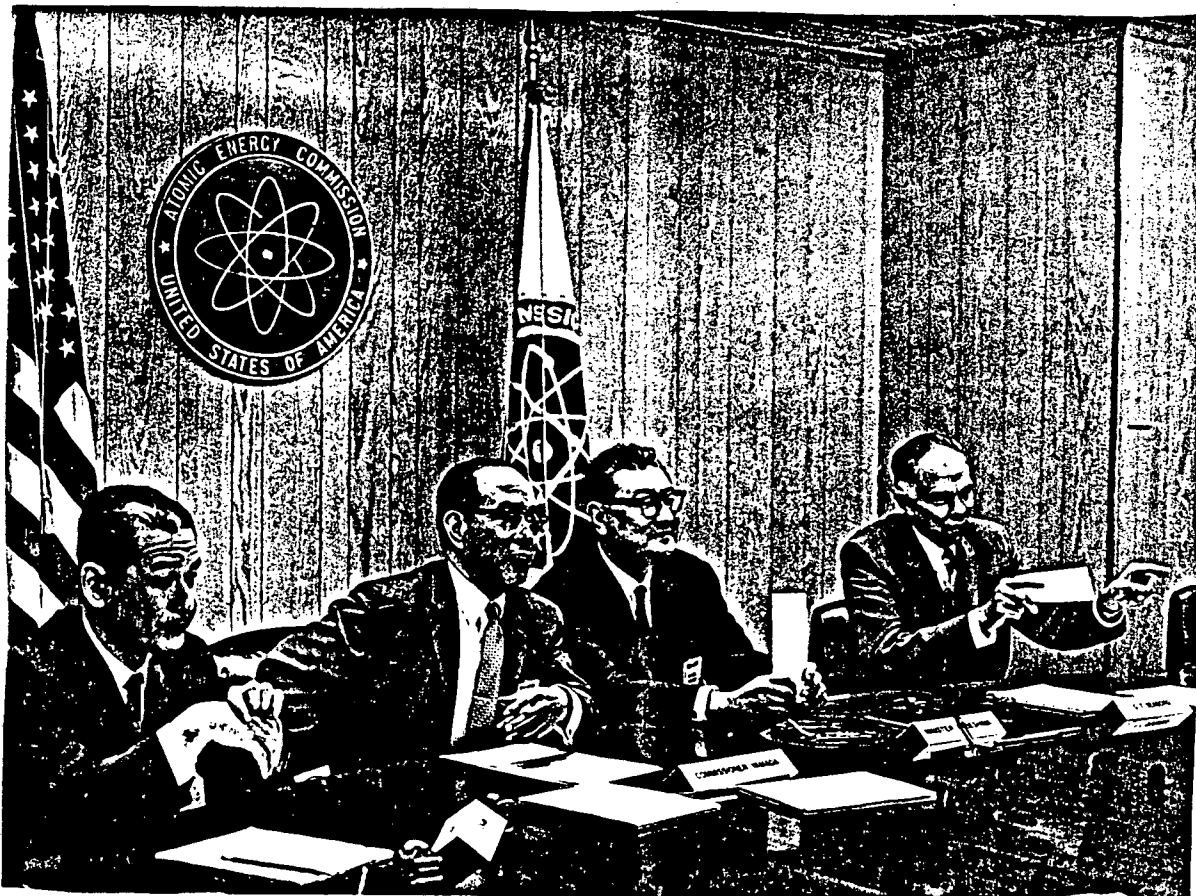
Monday, July 15, 1968- D.C.

I called John Macy at 8:45 a.m. and told him I have reviewed all the commissioner candidate possibilities and that we would have problems finding anyone for a one-year term. He agreed with this. I gave him the following names: Ralph Bunche, Sherman Knapp (this would take a call from Macy or the President), Marshall Nierenberg (NIH), Clarence L. Johnson (recently awarded the Presidential Medal of Science), Father Leo Brown, Father Ted Hesburgh, George Weaver (Labor Department), and George Taylor (AFL-CIO).

Macy asked what our labor situation is at the moment and I replied that it has quieted down, although we made a settlement at Hanford that neither side liked. He said Weaver is coming in soon on another matter and he will sound him out.

I also mentioned Charles Robbins (AIF), Larry Hafstad and Manson Benedict, GAC members, and Dwight Ink. None of these latter names have been cleared with the other Commissioners and there might be some objection to them. Macy said he would check on these names as soon as possible.

The Commission, staff and I met all day with the members of a Japanese delegation.



Meeting with Japanese AEC officials, July 15, 1968  
L to R: T. Fujinami, T. Yamada, N. Nabeshima and Seaborg

This included Naotsugu Nabeshima (Minister of State for Science and Technology and Chairman of the Japan AEC), Tasaburo Yamada (Commissioner, Japan AEC), Tsuneo Fujinami (Director, Atomic Energy Bureau), Takashi Ishikawa (Secretary to Nabeshima), Hiroshi Murata (Director, Power Reactor and Nuclear Fuel Development Corporation), Goro Inoue (President, Power Reactor and Nuclear Fuel Development Corporation), Kunihiro Uematsu (Secretary to Inoue), Hironori Itoh (Counselor of Embassy of Japan) and interpreters.

We had simultaneous interpretation in our "H" Street conference room. We discussed the status of nuclear power in the U.S. and Japan, ceramic fuels, radiation chemistry, reactor safety, fast breeders, advanced converters, nuclear fusion, food irradiation, supply policies for Pu and U-235, peaceful application of nuclear energy under an NPT, maritime nuclear power, nuclear desalting, and waste disposal and treatment.

In the course of the day I discussed with Nabeshima the question of the entry of United States nuclear submarines into Japanese harbors. I raised the question through an interpreter while driving from AEC headquarters in Washington to the luncheon at the Mayflower Hotel. Myron Kratzer and Ishikawa were present in the car. I said we are quite concerned with the question of United States nuclear-powered warships entering Japanese harbors without problems such as those connected with the recent Swordfish visit and that we would appreciate the personal support of Nabeshima toward this end. I also referred to the concern of members of the JCAE on this question.

Nabeshima said that this is a political question and referred to the recent elections, presumably implying that with these out of the way, matters will improve. I said that the AEC stands fully behind the technical report of Mr. Wegner on the Sasebo incident. Nabeshima indicated that he did not wish to discuss the matter further under the circumstances, presumably because of the presence of Ishikawa in the car.

After arrival at the luncheon Nabeshima voluntarily reopened the discussion with me, with only the interpreter present. He indicated that the official Japanese position is that the cause of the observed effect is not known. He went on to say that he is well aware that at no time was there a danger to health as a consequence of the incident. I pointed out that the issue is not one of danger to health, but rather whether or not any discharge had taken place and that we are completely satisfied that none had.

Nabeshima said that if no discharge had taken place, it might therefore be feasible for the United States to enter into an agreement guaranteeing that there would be no discharges by any U.S. nuclear submarines in Japanese waters. I stated that we are not in a position to do this. Nabeshima said that if this is not possible, then perhaps an agreement might be concluded which would guarantee against discharges except in case of emergency.

Nabeshima said that it will be necessary for the Japanese to build up their technical capability to the point where they can make independent determinations of possible radioactive contamination and they are in the process of acquiring this capability. As soon as they have this capability, they would like to conclude some kind of agreement concerning future visits of U.S. nuclear-powered warships to Japanese waters.

He was frank in admitting that the impending Japanese election influenced the behavior of the government on this incident very much. He said that the favorable outcome of the elections should make it possible to deal with the



Commissioners Meeting with Japanese AEC officials  
July 15, 1968

L to R: H. Itoh, T. Fujinami, T. Yamada, N. Nabeshima, Seaborg, G. Inoue, H. Murata, J. T. Ramey,  
W. E. Johnson and G. F. Tape

problem on a more rational basis. I had the impression that Nabeshima was anxious to give a reasonable explanation of the Japanese behavior. His conversation was accompanied by many knowing smiles and the use of the "confidential" approach and he took much initiative in continuing the conversation until he had a chance to make his points and he could feel that he had satisfied my desire for an explanation and information. I hosted a reception at 12:30 p.m. in the Cabinet Room of the Mayflower Hotel and a luncheon at 1 p.m. in the Pan American Room of the Mayflower Hotel for the group, plus Japanese Ambassador Takeso Shimoda, Adrian Fisher (ACDA), Nelson Sievering, Wallace Joyce, Richard Sneider (State Department), Chuck Johnson (White House), and Bill England (JCAE), along with Ramey, Tape, Johnson and AEC staff.

I spoke after lunch, describing my early scientific contacts, via literature, with Sheishi Kikuchi, Kinichi Aoki, and with Ryokichi Sagane at Berkeley, and others, and the history of U.S.-Japan AEC relations, the Japanese role in the IAEA safeguards (first trilateral agreement) and our new bilateral agreement signed on February 26, 1968, etc. Nabeshima responded.

At the end of our sessions at "H" Street Nabeshima and I signed the Record of Discussions for negotiation of a Technical Exchange Agreement Concerning Fast Breeder Reactors and agreed on a joint statement for issuance at a press conference.

Just before the press conference I presented to Nabeshima a gavel and base plate engraved with his name, made of plastic impregnated with irradiated wood. I also gave copies of the 25th anniversary record commemorating the December 2, 1942 event to the other members of the Japanese delegation.

We held a press conference in the "H" Street conference room at 5:30 p.m.--Nabeshima, Yamada, Ishikawa, and I. Present were representatives from the Associated Press, Science magazine, Hakkaido Shimbun, Asahi Shimbun, Kyodo News Service, Jomuci Shimbun, Japan Broadcasting, Jiji Press, Mainichi Newspapers, UPI, Washington Post (O'Toole), USIA, Tokyo Broadcasting, McGraw-Hill, Sankei Press, and Reuters. Questions were asked on details of our Agreement for Cooperation which covers fast breeders, food irradiation and Pu recycling. I was asked how I rated the Japanese program, and I said good now with great prospects for the future. I described my early contacts with Kikuchi, Aoki, Sagane, etc.

At the press conference Nabeshima responded to a question on the Sasebo incident by noting that this matter was now in the hands of the Foreign Ministry and not in his Ministry of Science and Technology.

At 7 p.m. I attended a reception given by Ambassador Shimoda at the Japanese Embassy for Nabeshima and his party.

Tuesday, July 16, 1968- D.C.

Edward Teller called me at 10 a.m. to tell me that he was in town to testify at the NPT hearings and that he intends to testify for the treaty although he will caution against the consequences with respect to defense applications. He said he hopes to read my testimony; I told him if he could not secure a copy from the Committee to feel free to come in and read mine.

I called James Jensen (Oregon State University) at noon to tell him the matter of the Commissioner has been settled and it had been strictly on the basis of geographical distribution and had nothing to do with his qualifications. I told him I had this word directly from the President. He said he thought someone from the Joint Committee had interfered. I also said that this decision should be kept confidential. He replied that he has said nothing in reply to the many inquiries he has had and that is not as comfortable as he likes to be. I said he could probably explain the situation to anyone he really trusts. I also said that his qualifications are the best and that perhaps with a new administration he might be contacted again.

Jack Horton (President, Southern California Edison) called me at 12:05 p.m. and said he learned from Joe Quinn at a meeting last week that Udall and I wanted them to come to a meeting in Washington. Then yesterday Bill Gould got a call from Milt Shaw telling him the meetings would be separate, with the City of Los Angeles group on the 23rd, and with the Southern California Edison group on the 24th. He said since they got the word through Quinn he was calling to be sure we want them to come and want separate meetings. He feels more can be gained by a joint meeting. I said I haven't been involved in the arrangements but that I would check into it and if anything different is set up, I will let him know.

At 12:30 p.m. I had lunch in my office with Fritsch and Rubin.

At 2 p.m. I met at Science Service headquarters with the Executive Committee of the Board of Trustees (Wallace Brode and Ted Scripps), Ted Sherburne and Dorothy Schriver to discuss and recommend salary increases for key staff, including Sherburne, Schriver and Kornberg.

At 2:55 p.m. I called Charles Miller regarding the letter I received from Joe Mixer advising that Roger Heyns would be coming to Washington around September 23rd to meet with the advisory committee. I told him I will be in Europe at that time but don't think the time should be changed because of that. He said Heyns will also be here on September 5th and that Sherm Maisel has offered his apartment for a small gathering to bring together a few committee members plus a few choice prospects. I told him I would be able to make that date.

At 4:30 p.m. I attended the concluding session of the meeting with the Japanese delegation which had been attended by Tape, Johnson, and AEC staff during the day. Present were Yamada, Inoue, Murata, Uematsu, Itoh, and Shinichiro Asao (First Secretary, Japanese Embassy). Tape and Yamada summarized the day's successful meeting. Inoue presented Tape and me with ballpoint pens.

I called Mother at St. Francis Hospital. She complained about a pain in the back, which is not very encouraging.

Wednesday, July 17, 1968- D.C.

At 10:30 a.m. I was interviewed by Anatole Jors (Austrian news commentator) on the role of nuclear energy in space.

Ronald G. Sowden (Scientific Attaché, British Embassy) called me at 11:25 a.m. He said he had just received the text of a speech being made by the Minister of Technology in the House of Commons about the reorganization of their nuclear industry. It is proposed to establish two internationally competitive design and construction organizations in place of the three commercial consortia now in existence. The fuel business would be publicly owned. The government would establish an atomic energy board on which the design companies, fuel company 054

others would be represented. The board would largely control policy matters. The function and structure of the Atomic Energy Authority would have to be modified to accommodate such a reorganization. He said all this will take time, of course, because legislation would be involved. He will send me the details as soon as he receives them.

Edward Teller's testimony on the NPT suggested that defensive weapons (with control by the defensive country, yet to be worked out) be exempt from the NPT. Hosmer testified against and Holifield for, the NPT.

I called Dr. Arthur Zimmerman at St. Francis Hospital to tell him I will be visiting Mother tomorrow evening and Friday morning. He said he has given her three radiation treatments, which she tolerates quite well.

At 12:30 p.m. I had lunch in my office with Fritsch.

I met with Lombard Squires (E. I. duPont de Nemours & Co.) at 1:45 p.m. Squires said that he had come in to talk about his invitation by Mangelsdorf to join the ACRS. Although there is some concern within the duPont organization regarding service on such a committee while he is active with duPont, he is planning to retire at the end of this year. Therefore, McCoy (President of duPont) and others with whom he has talked indicate that they would be willing for him to start serving on the ACRS immediately, provided it meets with my approval. I said that I very much approve and so he will go ahead and accept the appointment.

I then brought up the possibility of his serving on the GAC and he said he would very much like to do so. I said that his name is being considered at the presidential level and we will let him know the result. We agreed that his serving on the GAC would be consistent with serving on the ACRS.

He asked me whether I plan to attend the Masters Tournament next April and I said I would probably attend. It is scheduled for April 10th-13th.

I called William R. Corliss (author and consultant) at 2:40 p.m. to tell him that I hadn't neglected his letter of May 18th (which is attached to my journal of that date) with its proposal, but have been sorting out my thinking on it. I wonder if this is the right time for such a book. I suggested a book of much broader scope that would take in all the peaceful uses of atomic energy including the agro-industrial complex. I said a book solely on the latter subject would be too speculative at this time. He said my idea sounded pretty good and that since he is on vacation he will have time to give it some thought and get back in touch with me. I told him that I would send him a few speeches that I have made on the peaceful uses of atomic energy.

Helen and I attended a reception at our Huntington Street neighbors', the Furmans', in honor of Morris Ernst, lawyer and author, and his 80th birthday.

Thursday, July 18, 1968- D.C.- Los Angeles

I spent the day at the D.C. office. At 10 a.m. Jerry Tape, E. B. Tremmel (DIP), C. E. McColley (DIP) and I met with R. W. Crary (President of Chevron Research Company of Washington) who came as a representative of the National Security Industrial Association to explore the possibility of closer cooperation between industrial research and the AEC national laboratories. I said we would explore the possibilities.

At 10:30 a.m. the Commissioners and staff met with representatives of the American Public Power Association--Alex Radin (General Manager), Larry Hobart (Assistant General Manager for Legislative and Technical Services), Claud Erickson (President), John M. Nelson (First Vice President), John R. Kelly (Second Vice President), Durwood W. Hill (Treasurer), Stanley R. Case (member, APPA Executive Committee), W. R. Moyers (member, APPA Executive Committee), and F. H. King (member, APPA Executive Committee). We discussed the status of nuclear power in the United States, means of small utilities participating in large nuclear power plants, siting criteria for nuclear power plants, and training of reactor operators.

The Commission had a 12:45 p.m. luncheon Information Meeting 817 (notes attached). A controversial issue was how to treat the gas centrifuge progress. Ramey still thinks progress can be hidden; I think we need a more progressive rationale.

At 2:50 p.m. I presided over Regulatory Information Meeting 304 (notes attached) and at 3 p.m. over Executive Session (Adjudicatory) 174 (action summary attached).

I flew to Los Angeles on American Airlines Flight No. 101, leaving Baltimore at 5 p.m. (After I left Ramey was sworn in as Commissioner [reappointment] in a ceremony in the JCAE hearing room.)

I was met by Jeanette at the airport and we drove to St. Francis Hospital and visited with Mother (now in Room #303) from about 7:45 p.m. to 9:15 p.m. She seemed to be doing quite well. She has had Cobalt-60 radiation treatments (four minutes) each day since Monday. She also had blood transfusions today and yesterday. Mother and I walked back and forth in the corridor and she seemed to be in good spirits.

I checked into the Jubilee Motor Inn and spent the night there.

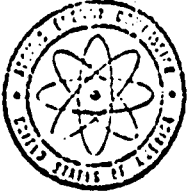
#### Friday, July 19, 1968- Los Angeles- San Francisco- Bohemian Grove

I had breakfast in the Jubilee coffee shop and then went to St. Francis Hospital to visit Mom. I arrived as they were ready to take her down to the Radiation Department so I accompanied her. We ran into Dr. Hamilton, who went with us. We met Dr. Zimmerman there. Mom had a four minute treatment--210 rads. I talked to Drs. Zimmerman and Hamilton. Everything seems to be going all right so far--she endures the treatments well. She waved her hand through the beam (she is puzzled by the invisibility of radiation) and I later admonished her about this.

We visited the Progressive Care Unit (PCU) which Mom liked. Dr. Hamilton arranged for her immediate transfer into Room #253 to take place this morning. We saw this room during our tour. Mom was then brought back to Room #303, where I visited with her from 9 a.m. until 10:30 a.m. Mom takes one pill containing a half-unit dose of codeine plus some aspirin each day. Her back pain was gone last night for the first time at night, but returned today. She also takes a diuretic pill and vitamin pills. [Although I didn't realize it then, this was the last time I saw her alive.]

I then went back to the motel, called Jeanette to give her a report, and then took a taxi to the airport. I flew to San Francisco on West Air Flight No. 604, leaving at 12:30 p.m. and arriving at 1:30 p.m.





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

COPY NO. \_\_\_\_\_  
July 18, 1968

INFORMATION MEETING 817

UNCL. BY DOE  
NOV 86

12:40 p. m., Thursday, July 18, 1968, Chairman's Conference Room, D. C.

1. Meeting with Hughes' Representatives 3:00 p. m., July 24, Room 176, Executive Office Building

Staff will attend. (EAGM-AGMMA)

2. Commissioners' Meeting with Martin-Marietta Officials, 2:00 p. m., July 26, Germantown

Scheduled. (SECY)

3. Mr. Charles Weaver's Discussion with Commissioner Johnson re Meeting of Westinghouse Representatives with the Commissioners

The Commissioners agreed a meeting could be scheduled in October or November 1968. (SECY)

4. Meeting with Niagara Mohawk and Others

The Commissioners suggested a Commissioner attend the meeting with staff if appropriate. (DDR)

5. Chairman and Commissioner Tape's Meeting with Mr. R. W. Crary to discuss Improved Liaison with the National Security Industrial Association

The Commissioners requested staff recommendations. (AGMR&D)

6. July 12 Letter from V. F. Weisskopf, CERN, re Discussions with Soviet Officials on Collaboration

Noted. The Chairman suggested Dr. Tape try to see Mr. Flerov if he visits Dubna. (Rosen)

7. Draft Letter to Mr. H. R. Richmond, Administrator, Bonneville Power Administration re Draft Proposal (See Commissioner Johnson's July 17 memorandum)

Circulated for the Commissioners' review and comments to Commissioner Johnson. (SECY-O'Donnell)

8. Guide for Commissioners Ramey's and Johnson's July 23 Meeting at the Bureau of the Budget

Noted. (SECY-O'Donnell)

9. July 9 Letter from Jean Van der Spek re Enrichment Plant for Europe

Noted.

10. Commissioner Tape's July 19 Meeting at ACDA

11. Jackson-Miller July 17 Colloquium on Environmental Contamination

Commissioner Tape reported briefly on the discussion and will consider sending a record letter to the Committee. (Rosen-SECY)

12. Agenda for the Week of July 22, 1968

Approved. (SECY)

13. Commissioners' September 10, 1968, Meeting with Sir Charles Cunningham

Scheduled. (AGMIA-SECY)

14. Dr. Ronald G. Sowden's, Scientific Attache, British Embassy,  
Call to the Chairman re UKAEA Reorganization  
Noted. (AGMIA-SECY)
15. Commissioner Ramey's Report on the Status of the Bolsa Island Project
16. AEC 343/18 - Request for Historical Information  
Approved with a change. (SECY)
17. AEC 1282/5 - Execution Data for a Portion of the Bowline I Event  
Approved with a query. (AGMMA-SECY)
18. AEC 809/123 - Proposed Export of Neutron Generator to East Germany  
Approved. (AGMIA)
19. AEC 359/75 - Supplemental Report on Raw Materials Policy  
Approved with revisions. A revised Appendix A and press release  
will be circulated to the Commissioners for individual comments to  
staff. (RM)
20. AEC 610/121 - Gas Centrifuge Developments (See also Dr. Reichardt's  
July 16 Memorandum and Mr. Brown's July 17 Memo re Gas Chromatography)  
Discussed and noted. Staff may proceed. (AGM)
21. Mr. Shaw's July 17 Memorandum re Release of Reports for Limited  
Distribution  
Approved. Any additional comments will be directed to staff.  
(RDT)
22. Status of Consultant Contract for Dr. Manson Benedict  
To be checked. (SECY)

23. Pending Contractual Matters Report No. 266

Noted. (PAR)

24. AEC 1192/60 - Biospherics Research, Inc., Contract

Noted with a request. (EAGM-SECY)

25. AEC 783/95 - S. 2525 - A Bill to Amend the Federal Water Pollution Control Act; and  
AEC 783/96 - S. 3206 - Amendment to Federal Water Pollution Control Act

Noted. (GC)

26. AEC 152/236 - JCAE Hearings on "Practical Value" (See also Mr. Hennessey's July-18 Memorandum re Joint Committee Bill on Practical Value and Thermal Effects

Noted. (GC)

W. B. McCool  
Secretary

2:55 p. m.

PRESENT:

COMMISSIONERS:

Chairman Seaborg  
Commissioner Ramey  
Commissioner Tape  
Commissioner Johnson

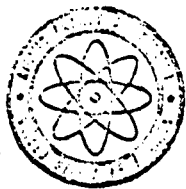
STAFF:

Mr. Bloch  
Mr. Brown  
Mr. Hennessey  
Mr. Abbadessa  
Dr. Fritsch  
Mr. Kull  
Mr. McCool  
Mr. Quinn\*  
Mr. Winter\*  
Mr. Kratzer\*  
Mr. Faulkner\*  
Mr. Tremmel\*  
Mr. Shaw\*  
Dr. Kavanagh\*  
Dr. Beck\*  
Mr. Wells\*  
Mr. Nyer\*

DISTRIBUTION:

Commissioners  
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General Counsel  
Secretary

\*Attendance by Topic (s)



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

REGULATORY INFORMATION MEETING 304

2:55 p.m., Thursday, July 18, 1968, Chairman's Conference Room, D. C.

1. AEC-R 176/3 - Request for Exemption by Public Service of Colorado (Ft. St. Vrain Nuclear Generating Station) Docket No. 50-267

Deferred. (DDR-ADRA)

2. Dr. Beck's Oral Report on the Commissioners Meetings with the ACRS

Recommendations on technical support are in preparation.  
(AGMR-DDR-ADRA)

3. Status of ACRS Review of Zion Reactor Plant

W. B. McCool  
Secretary

3:00 p.m.

PRESENT:

COMMISSIONERS

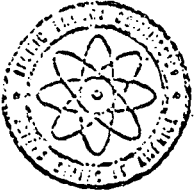
Chairman Seaborg  
Commissioner Ramey  
Commissioner Tape  
Commissioner Johnson

STAFF:

Dr. Beck  
Mr. Hennessey  
Dr. Fritsch  
Mr. Wells  
Mr. Nyer  
Mr. McCool

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Commissioners  
Dir/Regulation  
General Manager  
General Counsel  
Secretary



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

July 19, 1968

File

ACTION SUMMARY OF EXECUTIVE SESSION (ADJUDICATORY) 174, THURSDAY,  
JULY 18, 1968, 3:05 P.M., CHAIRMAN'S CONFERENCE ROOM, D. C. OFFICE

1. Consumers Public Power District (Cooper Nuclear Station), Docket No. 50-298  
(See Secretary's July 8 Memorandum)

The Commission agreed to permit the initial decision of June 4, 1968, to become final on July 19, 1968. (SECY)

2. Omaha Public Power District (For Calhoun Station Unit No. 1),  
Docket No. 50-285 (See Secretary's July 15 Memorandum)

The Commission approved an Order, as revised, dated July 18, 1968. (SECY)

Original signed  
W. B. McCool

W. B. McCool  
Secretary

cc:

Chairman Seaborg  
Commissioner Ramey  
Commissioner Tape  
Commissioner Johnson  
General Counsel  
Solicitor

I was met by Ward Blackmon and Dan Wilkes. On the ride to the Lawrence Radiation Laboratory I discussed with Wilkes my autobiographical chapter for Irving Stone's University of California centennial volume There Was Light and my speech to the Council of Graduate Deans in San Francisco on December 4, 1968.

I visited with Al Ghiorso in the HILAC Building. Earl Hyde was also present. Al showed me his results from  $Cf^{249} + C^{12}$  to apparently produce  $104^{257}$  with alpha groups 8.8, 8.94, 9.01 MeV and a few seconds half life, perhaps also  $104^{258}$  with a millisecond S.F. half life.

Then I visited Sven G. Nilsson and Chin Fu Tsang, who showed me the results of their calculations of alpha half lives of isotopes with  $N=184$  around  $Z=110$  to 114. The alpha half lives are long, especially at  $Z=110$ , approximately  $10^8$  years or greater.

Nilsson, Tsang and I then went to Stan Thompson's laboratory, where we talked to Thompson and Raymond Gatti about their experiment to search for natural element 110 in Pt, 111 in Au, etc. It is a very exciting prospect to look for alpha particles of 5 to 6 MeV.

Then I visited Burris Cunningham in his office to discuss plans for the revision of the Katz and Seaborg book, The Chemistry of the Actinide Elements.

Blackmon then drove me to the Bohemian Grove where I checked into a room with Howard Williams in the Wayside Log Camp. I had dinner in the Dining Circle with a group from Wayside Log and then went to the Campfire Circle, where there was a program under the leadership of Ray Bolger, Sire. Appearing were John Creighton Uretler (violinist), George Fair (pianist), the same guitarist as last year, a comedy pair describing a news show of 1988 (which included Rowan of the Rowan & Martin TV team), Edgar Bergen and others.

#### Saturday, July 20, 1968- Bohemian Grove

I had breakfast in the Dining Circle with a group from Wayside Log. I went to the Civic Center for a while, then back to Wayside Log, where I persuaded Norman Strouse (Chairman of J. Walter Thompson Co., New York City) and Charles Stewart (Bank of America) to join me on a hike. We hiked up the road to the Skeet and Trap Shooting Center, then hiked to the top of Mt. Heller and back, then on the Stowe Trail over a mountain ridge back to Wayside Log. This took about two and a half hours and covered about five miles.

Charles Stewart and I went to Puma for a lunch of wild game. There I saw David Smith. Then we went to Lost Angels where we heard, after a story by Andy Devine, a choral quartet and solo singing program by members of the Aviary. We then returned to Wayside Log.

Then Harry Goff and I toured some camps--Highlanders, Webb, Semper Virens, and Interlude. At Interlude we saw a little program dedicating a building in honor of George E. Osborne (former dean of Stanford Law School). A singer performed accompanied by Paul Carson.

I talked to Glenn Dumke (Chancellor, California State Universities and Colleges) about the status of the California Master Plan for Higher Education. Jesse Unruh wants to split up the University of California and the state colleges.

I had dinner at the Dining Circle and then went to the Field Circle to see the Low Jinks show, a satirical play called "The Sin of Ophelia Grabb." I walked with Charles Hitch, Roger Heyns and Don McLaughlin on the way.

Sunday, July 21, 1968- Bohemian Grove- San Francisco- Chicago- D.C.

I had breakfast at the Dining Circle with a Wayside Log group and then went on to breakfast at the Owl's Nest. I had a talk with Ed Carter about my future plans. He spoke about my being welcome and needed back at the University of California although he was indefinite as to the capacity.

At 12:30 p.m. I spoke to a capacity audience at the Lakeside on "Atomic Energy, Present and Future." The talk seemed to be well-received. Here I saw many friends--Lee DuBridge, Charles Odegaard, Deane Malott, Ed McMillan, Jeb Halaby, Edgar Kaiser, Dave Packard, Charles Hitch, Ed Carter and many, many others.

Due to the visiting with friends and answering of questions I wasn't able to leave the Grove to start the automobile trip to the San Francisco Airport until about 1:40 p.m. Ward Blackmon drove me at high speed and we arrived just in time for me, carrying my luggage to the gate, to check in at 3:42 p.m. on TWA Flight No. 176, which left promptly at 3:45 p.m. I arrived in Chicago's O'Hare Airport about 9:35 p.m., after circling for 40 minutes as a result of the current local FAA employees' spite program. I left Chicago at 10:15 p.m. and arrived at Baltimore airport at 12:40 a.m.

Monday, July 22, 1968- Germantown

Matthew Coffey (White House) called at 10:55 a.m. about two matters--a new federal representative to the SINB and the GAC appointments. Regarding the latter, he said they have problems with Lombard Squires because he has been active politically, but Herbert Friedman and Thomas Pigford checked out okay. I expressed great surprise at the remark about Squires and told Coffey I thought he should check again because to my knowledge Squires has always been nonpolitical. I said he is actually the best candidate we submitted since he will be retiring soon and could devote his time to the GAC. Also, he has been in atomic energy since 1942. I asked him to look at this again right away and he said that he would.

Nat Welch has come up with some names as his replacement on the SINB: Carl Elliott (former congressman from Alabama), Albert Rains (also a former congressman from Alabama), Ellis Arnall (former governor of Georgia) and Ned Breathitt (former governor of Kentucky). He said they all sound pretty good and he will send some background information on them. I told him he didn't necessarily have to choose someone recommended by Welch.

Walker Cisler (President, PRDC) called at 11 a.m. from the Mayflower Hotel where he is attending a meeting of the U.S. National Committee of the World Power Conference to be held in Moscow in August. He told me that about a week ago in a meeting in New York City the Detroit Edison Board of Directors made a decision to proceed with two large units of 800,000 KW, one to be fossil-fueled and the other to be nuclear-fueled. The nuclear plant will be a water-type reactor and will be located adjacent to the Enrico Fermi plant. The conventional plant will be located at the Monroe site. He said there would be an announcement on this in a few days. He wanted to make it clear that the decision to use a water-cooled reactor in no way reflects any decline of determination to also build in that same place a large nuclear breeder reactor, probably in about ten



years. I asked him what kind of a water reactor it would be and he said they will not know until August. He asked me if he should notify anyone else of this and I said it might be a good idea to call John Conway at the Joint Committee.

I received a telephone call from Dan Tyler Moore (International Platform Association) at 11:25 a.m. He said the convention going on at the Sheraton-Park Hotel is going well. Nelson Rockefeller is lined up to give a major foreign policy speech, and Hubert Humphrey will give a major address at the banquet. They are still trying to get Eugene McCarthy. He said he and Drew Pearson (who, he said, is a great admirer of mine) were going over the possibilities for next year's president and came up with my name. They both hope I will be willing to serve. It is strictly an honorary office with no duties involved. It would not be necessary to attend meetings if it were not convenient. I said he certainly took me by surprise but I would be willing to give it a try if it doesn't involve any duties. He said he thinks it would be nice if I could make one appearance during the convention when this could be announced. We decided that the banquet on Wednesday evening might be the best time. He said he would send a program over.

At 11:35 a.m. Dick Doan called to say that he is recommending Alvin Weinberg for the 1969 Cosmos Club Award and wondered if he could use my name as one who would recommend it. I said he could and I think it is a good idea. He also mentioned that Norman Hilberry and Roger Coe would be very good candidates for one of the various citations that the Commission gives.

I had lunch in my office with Fritsch at 12:30 p.m.

I called Secretary of Interior Udall, along with Ramey, to discuss the serious possibility that Southern California Edison Company will withdraw from the Bolsa Island project and to discuss our strategy in our meeting with the representatives of the Los Angeles Department of Water and Power tomorrow and Southern California Edison on Wednesday to discuss the future of the project. I also called Ed Carter in Los Angeles. Ed is a member of the Board of Directors of Southern California Edison and I discussed the problem with him at Bohemian Grove yesterday to try to enlist his aid in keeping Southern California Edison in the project.

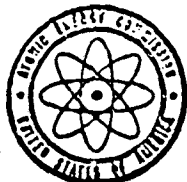
At 2:45 p.m. I presided over Commission Meeting 2332 and at 4 p.m. over Information Meeting 818 (action summary and notes attached).

I received a call from Arthur Bell (Viking Press, New York) at 4:45 p.m. He asked if he could quote from my July 16th letter to Red Valens in connection with Valens' poem "Cyberonaut." I said he could--if he quoted it all. He wanted to delete the words "albeit with a somewhat pessimistic view," as they are rather negative. I said that was part of my description and could not be deleted. He then decided it would be better not to use it [but later reversed himself and decided to use it].

During my absence in California Pete received a note from his draft board notifying him that he has been classified 1A.

Tuesday, July 23, 1968- D.C.

At 10:05 a.m. Rubin and I met with Howard Nason (President, Monsanto Research Corporation) and Ralph Neubert (Director, Mound Laboratory). The purpose of the meeting was to introduce Neubert in his capacity as the new manager of the Mound facility operated by Monsanto for the Commission. Neubert's background and



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WASHINGTON, D.C. 20545

July 23, 1968

Approved \_\_\_\_\_

R.E.H.

Date \_\_\_\_\_

R. E. Hollingsworth, General Manager

ACTION SUMMARY OF MEETING 2332, MONDAY, JULY 22, 1968, 2:40 P.M., ROOM A-410,  
GERMANTOWN, MARYLAND

SECY:LGH

1. Minutes of Meetings 2320, 2321, 2322 and 2323

Approved, as revised, subject to comments by Commissioner Ramey. (SECY)

2. AEC 1106/1 - Proposed Amendment to Agreement for Cooperation with Greece

Approved. (AGMIA)

3. AEC 25/392 - Proposed Navy Safety Rules

Approved. (AGMMA)

4. July 1 Memorandum from Mr. Baranowski and General Giller re Transmittal and Discussion of AECOP-57, Dollars Assignable to Nuclear Materials in Weapons Systems and their Application in the Evaluation of Alternatives

Approved, subject to adjustments in the attached report to include 5 percent discount rate on the examples. (P/AGMMA)

5. AEC 695/49 - Gaseous Diffusion Plant Cascade Improvement Program

Discussed. The Commission indicated staff should proceed with plans to begin the Cascade Improvement Program in FY 1970 and supported the obligation of \$20-\$25 million to support the program. The Commission noted the security sensitivity of foreign procurement of nickel powder. (P)

6. AEC 262/127 - Future Program of the duPont Laboratory at Savannah River (See also AEC 262/128 & AEC 262/129)

Discussed. The Commission noted the need to encourage development of the Californium-252 Program and the possibility of Savannah River's contribution to reactor safety research, cross section measurement, and Cobalt-60 heat source technology. (P)

July 23, 1968

7. AEC 289/65 - Patent Licensing of Trip Steel Invention

Approved, with revisions to the JCAE letter.

Chairman Seaborg did not participate in the decision.

(GC)

8. AEC 107/23 - Amendment of Criminal Penalty Provisions of Atomic Energy Act

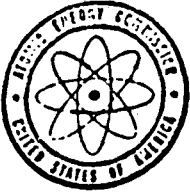
Discussed. The Commission indicated staff should conduct discussions with the JCAE on the basis of Alternative B and prepare a paper which would include amendments to the 1954 Atomic Energy Act for Commission consideration following these discussions.

(GC)

Original signed  
W. B. McCool

W. B. McCool  
Secretary

cc:  
Chairman Seaborg  
Commissioner Ramey  
Commissioner Tape  
Commissioner Johnson



WASHINGTON, D.C. 20545

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NOV 86

COPY NO. 2  
July 22, 1968

INFORMATION MEETING 818

4:00 p.m., Monday, July 22, 1968, Room A-410, Germantown Headquarters

1. July 21 Drew Pearson Article re NTS

The Chairman requested a quick review of the facts and Commissioner Ramey suggested an appropriate letter to the JCAE. (AGM)

2. July 19 Letter from Secretary of Interior Stewart Udall re Project Bronco

Noted.

3. Mr. Walker Cisler's Call to the Chairman to Inform him re the Planned Nuclear Plant at the Fermi site and Conventional Plant at the Monroe Site

4. Possible Replacement for Mr. Nat Welch, Former Federal Representative to the Southern Interstate Nuclear Board

The Chairman suggested consideration by the Commissioners. (Fritsch-SECY)

5. Possible Attendance at the IAEA Conference, September 24, 1968

(Fritsch-SECY)

6. AEC 460/100 - Enrichment Services Briefing for Foreign Executives

Approved. Staff will submit a conference outline. (AGMIA)

7. AEC 180/42 - Initial Meeting of NAS Committee on Radioactive Waste Management

Noted. The Commissioners declined the invitation to attend. (AGMO)

This material contains information affecting the national defense of the United States within the meaning of the espionage laws, Title 18, U.S.C., of Sections 793 and 794, the transmission or revelation of which in any manner to an unauthorized person is prohibited by law.

8. NTS Events (See General Giller's July 18 Memorandum)

Noted. (AGMMA)

9. AEC 764/194 - NDPC Survey of NATO

Noted.

10. Mr. Slaton's July 15 Memorandum re Draft of JCAE Classified Progress Report for January - June 1968

Noted. (PAR)

11. Meeting Schedule for Wednesday, July 24, 1968

A Commission meeting will not be scheduled. (SECY)

12. Commissioners' Schedule for August, 1968

Noted. (SECY)

13. Letter to Dr. Manson Benedict re Consultant Contract

Noted. (EAGM-SECY)

14. Dr. Manson Benedict's Attendance at the Turin Symposium on "Problems Bearing on the Isotope Separation of Uranium" October 1 and 2, 1968  
(See AEC 1083/120)

Approved. (AGMIA)

W. B. McCool  
Secretary

4:30 p. m.

PRESENT:

COMMISSIONERS:

Chairman Seaborg  
Commissioner Ramey  
Commissioner Tape  
Commissioner Johnson

STAFF:

Mr. Hollingsworth  
Mr. Brown  
Mr. Ferguson  
Dr. Fritsch  
Mr. Abbadessa  
Mr. Kull  
Mr. McCool  
Mr. Quinn\*  
Mr. Kratzer\*  
Mr. Baranowski\*  
Mr. Tremmel\*  
Mr. Erlewine\*

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General Counsel  
Secretary

\*Attendance by Topic (s)

previous experience were reviewed and a few of the current problems at Mound were noted. Nason expressed continuing interest in the commercial isotopes activities engaged in by Mound and expressed considerable enthusiasm for the potential of californium-252. I asked if he had mentioned this interest in meetings with the other Commissioners and Nason acknowledged that he had. The visitors thanked me for the opportunity to meet with me and said they look forward to my future visits to their facility.

I received a call from Herbert Childs (author of the Ernest Lawrence biography An American Genius: Life of Ernest Orlando Lawrence) at 11 a.m. He thanked me for sending him pictures taken at the dedication of the Lawrence Hall of Science. He said he is in town prospecting for a possible biography of Ed Pauley and that when he gets to the part pertaining to the Regents he will want to talk to me. Because I have a busy schedule today, we decided that he will call me the next time he comes to Washington.

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

At 12:30 p.m. I had lunch in my office with Rubin and Schneider (who has just returned from a Florida vacation).

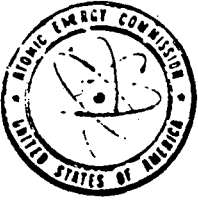
At 1:30 p.m. I met with Secretary of Interior Udall in his office, along with Julie Rubin, Under Secretary of Interior David Black, Bob Radcliffe (Black's assistant), Jack Hunter (Director, OSW), Ray Durante (OSW), Interior Assistant Secretary Max Edwards, Jim Ramey, Milt Shaw, and Bob McFarren to discuss the ensuing meeting with representatives of the Los Angeles Department of Power and Water.

Then we met with Mayor Sam Yorty of Los Angeles, Joe Quinn, Luring (a Board member), Edgar Kanouse (General Manager), Floyd Goss (Assistant General Manager), Rocky Ames (Quinn's assistant) of the Los Angeles group to discuss ways of saving the Bolsa Island project. We tried to convince them to allow Southern California Edison Company to assume the lead role in a unified command. They may agree to this, which could be a key to saving the project if we can convince Southern California Edison people tomorrow to continue the project.

I talked to Senator Pastore on the phone urging him to try hard to obtain \$15 million, not restricted to A&E, in the conference meeting tomorrow morning between the Senate and the House on the AEC FY 1969 budget for the 200 BeV Accelerator.

I met with Secretary of State Rusk in his office at 5:30 p.m. He said that he wanted to talk mainly about the comprehensive test ban and the cutoff of the production of fissionable material. I told him that I regard the problem of a proper U.S. position on the comprehensive test ban as a "dilemma." The U.S. has publicly stated its position of seeking a comprehensive test ban, but at the same time has publicly stated its reliance on new offensive weapons, such as Minute Man III, Poseidon and Mirv, for its deterrent capability and on defensive weapons, such as the ABM. These offensive and defensive cannot be developed without underground testing. When this became clear in any Senate hearings on the comprehensive test ban treaty, it would be impossible to get the required two-thirds majority of the Senate for approval of such a treaty. Rusk seemed to understand this dilemma very well.

Rusk referred to the international meeting of scientists in Sweden who have been considering the matter of detection of underground tests in connection with a comprehensive test ban. Interestingly enough, the material he had on this indicated that the scientists had concluded that it would not be possible,



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NOV 88

July 23, 1968

The President  
The White House

Dear Mr. President:

I have the pleasure of submitting the regular biweekly report on significant developments in the atomic energy program:

1. Agreement on a draft contract for Plowshare Project Bronco, a proposed oil shale experiment, was reached by CMR Geonuclear Corporation (representing approximately 15 oil companies), the Department of the Interior, and AEC at a meeting held in Las Vegas July 12-13. The Bronco experiment would investigate the use of underground nuclear explosions to fracture oil shale for subsequent recovery of oil content by an in-place heating process. Industry participants would fund almost the entire project with the exception that the Government would furnish the explosive, certain related services, and the public land on which to conduct the experiment. Final review of the contract is now being made by the respective Government agencies and involved companies.
2. The clean-up operations conducted subsequent to the B-52 crash near Thule, Greenland on January 21 have resulted in the accumulation of about 10,500 tons of liquid and solid contaminated residue at the Thule Air Base. AEC has selected the Savannah River Plant in South Carolina as the final disposal site for this residue.
3. The Commission has approved the conclusion and recommendations of an ad hoc committee of expert consultants who have evaluated the data from the 1967 radiological survey of Bikini Atoll. The committee concluded that the exposures to radiation that would result from the repatriation of the Bikini people back to their native islands would not offer a significant threat to their health and safety. These natives had been relocated to other Pacific islands at the time of the Bikini nuclear tests in 1946. The committee also



recommended a number of measures to be followed which would further reduce exposure to radiation. The Commission is forwarding these recommendations to the Secretary of the Interior.

4. The Memorandum of Cooperation in Peaceful Uses of Atomic Energy between AEC and the USSR State Committee on the Utilization of Atomic Energy will become effective when signed on separate occasions by Chairman A.M. Petrosyants and myself. The memorandum is part of the overall US-USSR Scientific, Technical, Educational and Cultural Exchange Agreement for 1968-69, which was signed in Moscow on July 15. The memorandum provides for the continuation of reciprocal personnel and information exchanges.
5. A team of U.S. scientists will visit the Soviet Union August 1-11 primarily to participate in the third conference on Plasma Physics and Controlled Nuclear Fusion Research to be held at the Institute of Nuclear Physics in Novosibirsk. This conference, sponsored by the International Atomic Energy Agency, will run August 1-7. U.S. representatives also will have the opportunity to visit Soviet scientific facilities in Leningrad, Moscow, Kharkov, and Sukhumi.
6. Members of the Japanese AEC met July 15-16 with the other Commissioners and myself to review the atomic energy programs of each country. Included in the discussion was the desirability of exchanging information on fast breeder reactors. The Japanese delegation, which included nuclear industry representatives, was headed by Naotsugu Nabeshima, Director General of the Science and Technology Agency as well as Chairman of the Japanese AEC.

Respectfully submitted,

(Signed) Glenn T. Seaborg

Glenn T. Seaborg

without inspection, to detect underground tests below about 10 kilotons in hard rock or below about 100 kilotons in alluvium.

With respect to the cutoff of fissionable material, I said that this presents less of a problem than the comprehensive test ban--the problem might be mainly one of wording of such an agreement. Since the U.S. has already shut down seven out of its 14 plutonium production reactors and two-thirds of this capability for the production of uranium-235, there isn't much to shut down. Therefore, it is not a matter of shutdown of production facilities but a change from production of fissionable material for nuclear weapons to production, under safeguards, of fissionable material and other reactor products for peaceful uses. Rusk suggested that he would have Adrian Fisher come to talk to me about proper ways of wording any agreement in this area.

Rusk then turned to the question of the prohibition of nuclear weapons on the seabed, saying he was disturbed by the positions of the Joint Chiefs on this. I said I agree with him that we should negotiate an agreement on the prohibition of nuclear weapons on the seabed. Rusk expressed concern about the attitudes of the Joint Chiefs and their growing influence, and said that he is coming to believe that President Eisenhower was right when he made his famous statement at the end of his last presidential term, expressing concern about the influence of the military in running our country.

Rusk then turned to the question of Plowshare and its relation to Article V of the Non-Proliferation Treaty. He asked whether I think the Limited Test Ban Treaty should be amended in order to make it possible to implement Article V, saying that he thinks this is quite feasible. I said I think that this would be the best way of doing it, although it might be possible to reach sufficient agreement with the Soviet Union to carry on some of the experiments of excavation technology without amending the Limited Test Ban Treaty. However, in order to carry on all of the required experiments on excavation technology and to execute an actual project, it would be necessary to amend the Limited Test Ban Treaty.

We then talked briefly of the problems of university administrators, in the course of which he said that he definitely doesn't plan to accept an administrative position in a university when his term as Secretary of State expires next January 20th, but he might accept visiting professor assignments.

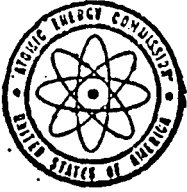
I was elected President of the International Platform Association at a Board meeting held this afternoon.

I called Mother at St. Francis Hospital and learned that she couldn't manage in the Progressive Care Unit and had to move back to Room #303 last Thursday. It doesn't sound too good.

Wednesday, July 24, 1968- D.C.

At 9:45 a.m. I presided over Information Meeting 819 (notes attached).

At 10:30 a.m. I met in Secretary of Interior Udall's office with the same government group as yesterday, together with a Southern California Edison group consisting of Jack Horton (Chairman of the Board and Chief Executive Officer), William Gould (Senior Vice President), Howard Allen (Vice President), and Alan M. Nedry (Washington representative). Horton insisted that the project at Bolsa Island is uneconomical and Southern California Edison has been forced to drop it. We couldn't dissuade him or his group. We then explored other sites,



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COPY NO. 2  
July 24, 1968

INFORMATION MEETING 819

9:45 a.m., Wednesday, July 24, 1968, Chairman's Conference Room, D. C.

1. Commissioners' Meeting at the Bureau of the Budget Yesterday  
(See Discussion Guide dated July 23, 1968)

Commissioners Ramey and Johnson discussed briefly their meeting yesterday with BoB officials.

2. US Position re USSR Acceptances of Delegates to the IAEA Conference  
on Plasma Physics and Controlled Nuclear Fusion Research, Novosibirsk

Commissioner Tape will inform the Department of State the AEC shares its view re the importance of principle on this matter, but is reluctant for the IAEA to take as strong a stand as suggested on this relatively weak case. (AGMIA)

3. Chairman's Report on his July 23 Meeting with Secretary of State  
Dean Rusk

4. Chairman Seaborg's and Commissioner Ramey's Meetings Yesterday  
and Today on the Bolsa Island Project

W. B. McCool  
Secretary

10:15 a.m.

PRESENT:

COMMISSIONERS:

Chairman Seaborg  
Commissioner Ramey  
Commissioner Tape  
Commissioner Johnson

STAFF:

Mr. Hollingsworth  
Mr. Brown  
Dr. Fritsch  
Mr. Kull .  
Mr. Kratzer  
Mr. McCool

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General Counsel  
Secretary

especially San Onofre. This offers some hope if we can procure more land from the Marine Corps and Southern California Edison apparently would agree to Los Angeles Department of Water and Power (LADWP) and Metropolitan Water District (MWD) participation there.

We then were joined by yesterday's LADWP group (except Mayor Yorty) and told them about Southern California Edison's rejection of the Bolsa Island project. We explored other sites, such as San Onofre and Malibu, and the LADWP group offered some hope for this solution as well. Udall and I called Joseph (Chairman, Board of Directors, MWD) and he agreed to cooperate in finding other solutions. We all agreed to take an optimistic public attitude (with press, etc.) that we are looking for alternative ways of proceeding with a re-scoped and re-sited project.

I presided over a 1:30 p.m. luncheon Information Meeting 820 and a 3 p.m. Regulatory Information Meeting 305 (notes attached).

The House-Senate conference on our budget was held. We came out with broadened language for the 200 BeV Accelerator (as we wanted) and a total of about \$14.5 million instead of \$17.5 million. For Rover we received \$53 million (plus \$7 million for selected resources) which is about what we requested.

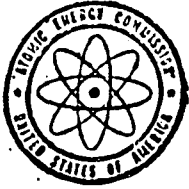
I called Bob Wilson to tell him how we came out on the 200 BeV Accelerator and he is so disappointed he threatens to quit, which would be disastrous for the project. I asked him to come in with Norman Ramsey next week to discuss it.

At 3 p.m. Bob Hollingsworth, Howard Brown, Edward Giller and Charles Winter met with William Welsh and Colonel Hunt (Vice President Humphrey's office), and John Meier and George Roth (Howard Hughes' organization) to hear their complaints about our high-yield testing in Nevada. We agreed to have a panel of scientists investigate the safety aspects.

Helen and I attended the reception and dinner of the International Platform Association at the Sheraton-Park Hotel. Drew Pearson presided at the dinner. He introduced me as the new President of the IPA and I spoke briefly, jokingly saying that I was sorry Vice President Humphrey hadn't arrived yet so I could tell him how to win presidential elections. I also presented to Chief Justice Earl Warren, in absentia, the IPA Award for 1968. When Vice President Humphrey arrived, he sat between Pearson and me. In his speech he said he would like to hear my formula for winning presidential elections after his speech. Ambassador Guillermo Sevilla-Sacasa of Nicaragua and Ambassador Echevarria of Venezuela also spoke in honor of Simon Bolivar's birthday. Ambassadors Covey Oliver and Sol Linowitz (OAS) were present. Helen sat at a table with Mrs. Pearson and wives of the several Latin American ambassadors present.

Thursday, July 25, 1968- D.C.

I called Don Hornig at 8:45 a.m. to tell him our people met yesterday with Colonel Hunt (Vice President's staff) and two of Howard Hughes' scientists--Meier and Roth--regarding Hughes' problems with our Nevada testing. The group explored the possibility of getting together some kind of panel to investigate the safety aspects of nuclear weapons testing. We were adamant that the study not involve the question of the need for testing or the program. That would be a different story and could prove to be difficult to review in such a forum. Hughes' people suggested Wiesner, Kistiakowsky, York and Killian. We think it might be all right to have one or two of these but certainly not all; in fact, none of them are particular experts on the safety aspects. I asked him



UNITED STATES  
ATOMIC ENERGY COMMISSION  
WASHINGTON, D.C. 20548

COPY NO. 2  
July 24, 1968

INFORMATION MEETING 820

1:30 p.m., Wednesday, July 24, 1968, Chairman's Conference Room, D. C.

1. Mr. John Conway's Call to the Chairman re Senate-House Conference Mark-up of the Fiscal Year 1969 Budget Estimates
2. Telephone Call to Mr. Hollingsworth from Dr. Carl Walske, Chairman, Military Liaison Committee
3. Staff Meeting with Hughes Corporation Representatives, 3:00 p.m. Today
4. Meeting of the Commissioners with Dr. Robert Wilson  
The Chairman will telephone Dr. Wilson. (Fritsch)
5. AEC Liaison with National Security Industrial Association  
The Chairman reiterated his request for staff recommendations. (IP-AGMR&D)
6. AEC 604/111 - Radiation Exposure and Collective Bargaining  
Revisions are requested. (AGMO)
7. AEC 891/19 - Certificate of Need for Housing at Los Alamos, New Mexico  
Approved. (AECA)

8. AEC 353/23 - Advisory Committee on Isotopes and Radiation Development Proposed Membership; and, AEC 353/22 - Proposed Membership for Advisory Committee on Isotopes and Radiation Development - FY 1969

Approved with a suggestion. (ID)

9. AEC 671/24 - Management Discussions at NRTS; and, AEC 671/25 - Management Discussions with Phillips Petroleum

The Commissioners noted recommendations will follow the August 15, 1968 report. (RDT)

10. AEC 960/13 - AEC Supply of Plutonium for Edison Electric Institute Sponsored Plutonium Recycle Program

Approved. Staff recommendations re uniformity in pricing policies are requested. (AGMP&P-AGMR)

11. AEC 293/79 - Soviet Bloc Travel of Contractor Employees with Sensitive Weapons Information

To be rescheduled with additional information. (AGMIA)

12. AEC 988/166 - Proposed Amendment to Mutual Defense Agreement for Cooperation with the U. K.

Commissioner Tape approves. (SECY)

13. 57b Determination re D<sub>2</sub>O for Rumania

Commissioner Tape approves. (SECY)

14. Commissioner Tape's Report on the JCAE July 23 Hearings on Proposed Changes to the NATO Statutory Determination

The AEC is to submit a copy of the latest NATO survey report to the Committee and the DoD will keep the Committee informed re information transmittals on ABM and Poseidon. Commissioner Tape will inform Mr. John Conway the AEC now plans to proceed. (AGM-AGMA)

15. July 25 Announcement re Reduction in Force at Oak Ridge National Laboratory

Approved. Senators Gore and Baker, Congressman Evins, and the JCAE are to be informed. (PI-Congr.)

2:55 p. m.

\*\*\*\*\*

3:40 p. m.

16. Press Release re Bolsa Island Project

Approved with changes. (PI)

17. Authorization for US Signature in Moscow of the US-USSR State Committee Memorandum on Cooperation

Commissioner Tape is authorized. (AGMIA) Memorandum on Cooperation is attached.

18. AEC 610/121 - Gas Centrifuge Developments

To be scheduled for consideration on August 28 or 29, 1968. (AGM-SECY)

W. B. McCool  
Secretary

4:05 p. m.



PRESENT:

COMMISSIONERS:

Chairman Seaborg  
Commissioner Ramey  
Commissioner Tape  
Commissioner Johnson

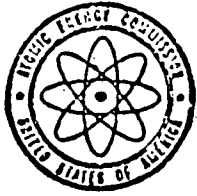
STAFF:

Mr. Hollingsworth  
Mr. Brown  
Mr. Hennessey  
Dr. Fritsch  
Mr. Kull .  
Mr. McCool  
Mr. Erlewine\*  
Mr. Herrick\*  
Dr. Kavanagh\*  
Mr. Harris\*

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Secretary

\*Attendance by Topic (s)



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

UNCL. BY DOE  
NOV 88

REGULATORY INFORMATION MEETING 305

3:00 p.m., Wednesday, July 24, 1968, Chairman's Conference Room, D. C.

1. AEC 107/24 - Civil Monetary Penalties for Violations of Licensing Requirements

Approved. (ADRA-GC)

2. AEC-R 184 - Proposed Agreement with the State of Idaho Under Section 274 of the Atomic Energy Act

Approved. (SLR-SECY)

3. AEC-R 171/1 - Contract Negotiations - Response of Reactors to Ground Motion

Staff may proceed. The Chairman suggested Commissioner Johnson review some of Dr. Newmark's Reports. (ADRA-DC)

4. AEC-R 29/42 - Fees for Facility and Materials Licenses

Approved. The Commissioners noted staff recommendations re legislation to provide AEC authority to charge federal agencies fees will be forthcoming. (ADRA-GC)

5. Mr. Price's July 23 Memorandum re Dow Chemical Company Use of Steam Produced by Nuclear Reactors in Chemical Processes

Noted.

6. Commissioners' Meeting with Martin-Marietta Company Officials, July 26, 1968

7. August 13, 1968, Meeting with Messrs. Young and Robbins, AIF

8. AEC-R 176/3 - Request for Exemption by Public Service of Colorado  
(Ft. St. Vrain Nuclear Generating Station (Docket No. 50-267))

The Commissioners agreed the exemption should not be granted. (ADRA)

W. B. McCool  
Secretary

3:40 p. m.

PRESENT:

COMMISSIONERS:

Chairman Seaborg  
Commissioner Ramey  
Commissioner Tape  
Commissioner Johnson

STAFF:

Mr. Price  
Dr. Beck  
Mr. Henderson  
Mr. Hennessey  
Dr. Fritsch  
Mr. Wells  
Mr. McCool

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Secretary

if he thought a subcommittee of PSAC could take on such a study. He said he had told the Vice President before that he wouldn't do it unless requested by the President as he felt it would be an unwarranted interference in our problem. But if it is our thinking that such a study would be a good idea, he would do it. I said I think it would be and suggested the following PSAC members and consultants who might be good members for such a committee: Charles Townes, Ivan Bennett, Lewis Branscomb, Sidney Drell, Mike Ference, Marvin Goldberger, George Pake, Fred Seitz, Charles Slichter, Jim Fisk, Edwin Land, Colin MacLeod, and Emanuel Piore. He suggested that I send him a memo outlining in general what is desired. He thinks it would be advisable to have a disinterested panel in order to assure the public, but he is sure it would have to include at least two of the four first mentioned above. (A copy of my letter suggesting the appointment of such a panel is attached. A copy of a letter dated July 26, 1968 listing suggested candidates for such a PSAC panel is attached to the July 26, 1968 journal.)

I called Congressman Chet Holifield at 10 a.m. and told him we met with the concerned parties on the Bolsa Island project and despite everything we could do, Southern California Edison could not be convinced to go ahead with it. The costs involved are too high. He said he knew we had worked very hard on it but couldn't do anything about it. I said we don't regard the project as dead but will keep trying for alternate sites. A high-level committee will inaugurate a study very soon. He asked if we considered San Onofre and I said it is not out of the question. The California Edison people have agreed to look at it and the City of Los Angeles people are not really adverse to it. It would involve getting additional land. Holifield said he thought we would have to have a definite commitment before we could get any land away from the military. He said we should get together for lunch soon as he would like to talk to me on a number of things.

At 10:25 a.m. I met with Alvin Weinberg (Director, Oak Ridge National Laboratory) who is still disturbed by his relationship with the Division of Reactor Development and Technology.

I called Jeanette to discuss Mom's condition, and, also, Dr. Zimmerman, who said she continues to take radiation well.

I received a telephone call from Joseph J. Carvalho (Southern California Edison Company) at 11:30 a.m. He invited me to be the principal luncheon speaker at the annual architect and engineer forum which the Southern California Edison Company and the Los Angeles Department of Water and Power are sponsoring next April 12th at the Century Plaza Hotel in Los Angeles. He said the attendance at these forums averages between 700 and 850 leading Southern Californian architects and engineers. After looking at my calendar, I told him I already have a commitment for that day so it would be impossible to do it.

I called Congressman Craig Hosmer at 12:05 p.m. and gave him essentially the same information on the Bolsa Island matter that I had given to Chet Holifield. He said he had heard it last evening from Max Edwards (Interior) but he couldn't be too enthusiastic about Southern California Edison slipping away from it. Hosmer does not exactly favor getting more land from the military at San Onofre and said he would rather see a plant put up on private property, mentioning the site Southern California Edison has up near Santa Barbara.

I had lunch in my office with Fritsch at 12:30 p.m.

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

UNCL. BY DOE  
NOV 86

OFFICE OF THE CHAIRMAN

July 25, 1968

Dr. Donald F. Hornig  
Special Assistant to the President  
for Science & Technology  
The White House

Dear Don:

As you are aware, there appears to be some public concern about the health and safety aspects of our underground nuclear testing program at the Nevada Test Site. While my fellow Commissioners and I are satisfied that these tests are being carried out with vigilant regard for the public health and safety, nevertheless we must take appropriate steps to allay doubt where it exists.

Accordingly, the Commission believes there is merit in the idea of appointing an ad hoc panel composed of a disinterested group of distinguished scientists to assess this public health and safety issue. In our view, the panel should either be a subcommittee of the President's Science Advisory Committee (PSAC) or operate under the aegis of your office.

We assume that the panel might wish to make a classified report to the President, with an unclassified summary and conclusion section, which could be made available to the public at the discretion of the President. Accordingly, we recommend that the members of the panel have the appropriate security clearances.

It is respectfully requested that the suggestions of the Commission be sought with respect to the membership of the panel and as to its detailed charter.

Please be assured that the Commission would cooperate fully with the panel and that all relevant resources would be at its disposal. We urge that the work of the panel proceed expeditiously.

Cordially,

  
Glenn T. Seaborg

085

I received a telephone call from Michael May at 2:35 p.m. He expressed concern over the proposed scientific group that would examine the safety of the AEC test program, especially the fact that the group might include Kistiakowsky and Wiesner. He said York and Killian would be more acceptable to them. He mentioned a few names to me and said he had also given them to AEC staff. I told him I have talked to Hornig and have given him quite a list of PSAC members and consultants who we think would be all right for the panel. He said he would think about these names and others and if he has anything else for me, he will call back.

At 3 p.m. Rubin and I met with John Landis and Louis Weissert (Babcock & Wilcox). Landis introduced Weissert to me as his new replacement at B&W. He reviewed a little of Weissert's background with B&W and expressed personal confidence in his being able to carry on for B&W in the same cordial manner that has been his experience in dealing with the Commission. We then discussed a number of matters relating to the forthcoming AIF conference which Landis had reviewed with me. Landis was also very complimentary about my extensive effort in publicizing the peaceful uses of atomic energy.

I took a hike in Rock Creek Park with Eric and Suki. Since the Washington Star (and also the Washington Post and Washington Daily News) stereotypists are on strike, Eric didn't deliver his papers today; this complicates his collecting task.

I wrote to Jeanette to tell her that Dr. Zimmerman told me that Mom is scheduled to have 36 radiation treatments.

Friday, July 26, 1968- Germantown

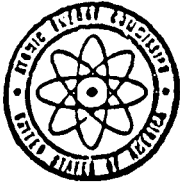
I called Matt Coffey (White House) to suggest that Edward Breathitt (former governor of Kentucky) and Carl Elliott (former congressman from Alabama) would be suitable candidates for the federal representative to the Southern Interstate Nuclear Board.

I had lunch in my conference room with Justin Bloom and Arnie Fritsch at 12:30 p.m. We discussed the two articles on the periodic table I am writing for two Soviet journals in connection with the 100th anniversary next year of the Mendeleev Periodic Table.

At 2 p.m. Ramey, Tape, Hollingsworth and I met with officials of Martin-Marietta--George M. Bunker (President), J. Donald Rauth (President of the Aerospace Division), N. Elliott Felt, Jr. (Vice President of the Nuclear Division)--and of Isotopes, Inc., a subsidiary of Teledyne--J. Lawrence Kulp (President), Robert H. Kleiner (Vice President), and Peter J. Vogelberger (General Manager, Nuclear Engineering), and William B. Heroy (Assistant President of Teledyne) to hear their plans to merge the Nuclear Division of Martin-Marietta with Isotopes, Inc., to be centered in the Baltimore plant.

I attended a 3:10 p.m. Regulatory Information Meeting 306 and a 3:30 p.m. Information Meeting 821 (notes attached).

I received a call from Secretary of State Rusk at 4:25 p.m. He asked if I have had a chance to give some thought to the matter of the Soviet denial of visas to the South African delegate and an Israeli to attend the Conference on Plasma Physics in Novosibirsk and what its effect would be. He said we have quite a problem on our hands when the Russians refuse visas to people entitled to attend an IAEA sponsored conference. If the Soviets get away with this, it will make 086



UNITED STATES  
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WASHINGTON, D.C. 20545

REGULATORY INFORMATION MEETING 306

3:10 p. m., Friday, July 26, 1968, Room A-458, Germantown Headquarters

1. AEC-R 176/3 - Request for Exemption by Public Service of Colorado  
(Ft. St. Vrain Nuclear Generating Station (Docket No. 50-267))

Scheduled for discussion on Monday, July 29. (DR-Chm. AS&LBP-SECY)

2. Status of MH 1A

Noted.

3. Mr. Price's July 26 Memorandum re Pre-Application Site Review for  
Fast Breeder Reactor

Noted.

W. B. McCool  
Secretary

3:30 p. m.

PRESENT:

COMMISSIONERS:

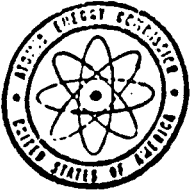
Chairman Seaborg  
Commissioner Ramey  
Commissioner Johnson

STAFF:

Dr. Beck  
Mr. Hennessey  
Mr. Rubin  
Mr. Hollingsworth  
Mr. Brown  
Mr. Kull  
Mr. McCool

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

COPY NO. 2  
July 26, 1968

INFORMATION MEETING 821

3:30 p.m., Friday, July 26, 1968, Room A-458, Germantown Headquarters

1. Chairman's July 25 Letter to Dr. Donald Hornig re Ad Hoc Panel

Noted. The memorandum to Dr. Hornig re panel members is approved and staff will circulate the draft press release and draft panel charter today. (Fritsch-AGM) dispatched 7/26/68

2. Federal Representative to the Southern Interstate Nuclear Board

The panel of candidates will be submitted to the White House. (Fritsch)

3. Letter to Mr. Walt Rostow, White House, re IAEA General Conference, Vienna

{ Letter was dated July 31, 1968 and is attached to }  
{ July 31, 1968 diary. }  
Approved. The Chairman hopes to deliver the letter to Mr. Rostow. (Fritsch)

4. Agenda for the Week of July 29, 1968

Retyped - Clemens Building

Approved.

a. Commissioners' Meeting with Illinois Governor Shapiro --  
Not to be scheduled.

b. August 14 Test, Grand Forks Air Force Base, North Dakota --  
The Commissioners cannot attend.

c. ACRS Social Hour, 5:30 p.m., August 8 -- Scheduled.

(SECY)



5. NTS Events (See General Giller's July 25, 1968 Memorandum)

Noted. (AGMMA)

6. Fiscal Year 1969 Budget (Controller's July 25 Memorandum)

Information on NASA action on the Rover Program is requested.  
(SNS-OC)

7. AEC 844/31 - Disposal of Savannah River Real Estate to Barnwell  
County, South Carolina

Approved with an addition. (AGMO)

8. AEC 1186/18 - Bolsa Island Project

Discussed. The Chairman noted he has informed Dr. Hornig. (RDT)

9. AEC 89/110 - French National at LRL-Berkeley

Noted.

10. Pending Contractual Matters Report No. 267

The proposed uranium production study is to be checked further. (DC)

11. Personnel Item

12. Commissioner Johnson's Visit to Idaho, August 15, 1968

Information is requested. (Congr.)

W. B. McCool  
Secretary

PRESENT:

COMMISSIONERS:

Chairman Seaborg  
Commissioner Ramey  
Commissioner Johnson

STAFF:

Mr. Hollingsworth  
Mr. Brown  
Mr. Hennessey  
Mr. Kull  
Dr. Fritsch  
Mr. McCool  
Mr. Erlewine\*  
Mr. Shaw\*

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Secretary

\*Attendance by Topic (s)

it more difficult to get signatures on the NPT, in which event we would be held responsible (especially if Israel doesn't sign).

I told him I had just seen a cable advising that the IAEA Director General has been successful in obtaining visas in the case of the two South Africans. Rusk said that was because they are members of the U.K. and U.S. delegations. I said I thought the reason the Israeli is having trouble is because he waited until the 18th of this month to apply for a visa, and we are in the position of not having an awfully strong case because the agreement was that visas would be applied for on a timely basis. Another difficulty is what the South Africans stand for and Soviets could say that if such a conference were held in South Africa, you could be sure that they would not reciprocate.

He said when the U.S. holds international meetings, we certainly give visas to those who are supposed to come and that under the bilateral policies on certain things we would even receive a delegate from Red China. I asked him if we had ever actually said that, or if it is just that we have never had occasion to deny a visa. Rusk said he did not understand Eklund's attitude because he has a basic commitment to fight for anyone who wants admission. I said I think he regards the case as borderline involving a somewhat late application from the Israeli. Also he is probably thinking in future terms of his relations with the Soviet Union. He has to walk a pretty tight line to preserve the good relations he has now. Rusk said this may not be a reason but an excuse. He thinks if Eklund insisted, the Russians would give the visas.

I asked what he suggests we do. I told him I am reluctant to try to force the Agency to do this because there is a feeling already that it is operating as a U.S. puppet. I said I think if we had a strong case, we wouldn't have any problem at all. He said the time element does not impress him very much. He knows of other cases when visas have been given in 24 hours. He thinks that some who sent in applications later than the 18th got visas. His problem is having U.S. government representatives attend if these visas are denied and it might be necessary to call them back. I asked if the President would have to know about this and he said he would. He said he is going to call Senator Pastore, too, since a member of the JCAE staff is involved. He said we should study the situation further and that he will probably be back in touch with me later in the day.

I called Don Hornig at 6:15 p.m. from home. I discussed with him the problem created by the Soviet refusal to issue a visa to a South African and their threat to deny a visa to an Israeli to attend the Conference on Plasma Physics to be sponsored by the IAEA at Novosibirsk beginning August 1st. Hornig said that he has discussed it with Secretary Rusk and informed him that he has no problem with the U.S. withdrawing the governmental members of our delegation. I also told him that today I sent him a list of members who might serve on the panel being constituted at Vice President Humphrey's request, as a result of protestations by Howard Hughes, to evaluate the safety aspects of the AEC's underground testing of high yield nuclear weapons at the Nevada Test Site (copy of letter attached). I said that in addition to those on the list submitted with my letter to him he might want to consider Simon Ramo and if their connections with nuclear weapons are not close, Kenneth Street and Albert Latter.

Secretary Rusk called me again at 8 p.m. at home and said that after consulting further on the matter of the Russians' refusal to issue a visa to the South African, and probably to the Israeli, for the IAEA Conference on Plasma Physics at Novosibirsk, he discussed the question with President Johnson. He said that his recommendation to the President was that we should take every conceivable step to put pressure on the Soviets to issue the visas. This will include **091**

Dr. Donald F. Hornig  
Special Assistant to the President  
for Science & Technology  
The White House

Dear Don:

Attached is a list of candidates from which the suggested panel to study the health and safety aspects of underground testing could be drawn. We would be pleased to consider any further candidates you may develop.

Cordially,

Glenn T. Seaborg

Attachment

ARF/smk

PSAC Members

Dr. Charles Townes  
Dr. Ivan Bennett  
Dr. Lewis Branscomb  
Dr. Sidney Drell  
Dr. Michael Ference  
Dr. Marvin Goldberger  
Dr. George Pake  
Dr. Kenneth Pitzer  
Dr. Frederick Seitz  
Dr. Charles Slichter  
Dr. Lewis Thomas

PSAC Consultants

Dr. James Fisk  
Dr. James Killian  
Dr. Edwin Land  
Dr. Colin MacLeod  
Dr. Emanuel Piore  
Dr. Herbert York

Other Possible Candidates

Dr. William Baker  
Dr. Hans Bethe  
Dr. Keith Bruckner  
Dr. John Dunning  
Dr. Lawrence Hafstad  
Dr. Harold Lewis  
Dr. Oscar Morganstern  
Dr. Charles Purcell  
Dr. Eugene Wigner

asking Ambassador Douglas MacArthur, II, in Vienna to approach the IAEA headquarters in Vienna to try to force them to demand that the Russians issue the visas, to possibly approach U Thant of the U.N. with a similar request, and to have Secretary Rusk call Ambassador Dobrynin tomorrow with the same demand. If none of these approaches are successful, we will then decide what to do concerning our delegation, but, in that event, we probably would recall either part or possibly all of our delegation. The President agreed completely with this approach and, in addition, even went so far as to indicate that we shouldn't allow any waste of travel money and thus we would demand that the scientists already in Europe refund their expenses to the government. Secretary Rusk said he had indicated to the President that this wouldn't be feasible. Rusk said he would keep me informed over the weekend as to the developments.

#### Saturday, July 27, 1968- D.C.

I worked during the morning at the D.C. office. Dianne accompanied me and we had lunch at the "H" Street Hot Shoppe with Doris Knief (who is Pat Goodwin's replacement).

I wrote to Chancellor Roger Heyns to comment, at his request, on his invitation to join the International Platform Association (copy attached).

Helen and I attended a buffet supper at the Rubins' which was held in honor of Pat Goodwin who is leaving us in two weeks to spend a year studying at Stanford University.

#### Sunday, July 28, 1969

Dave, Steve, Eric and I played 18 holes of golf at the Chevy Chase Club.

I read AEC papers.

#### Monday, July 29, 1968- Germantown

At 10:15 a.m. I met with Ronald Sowden (Scientific Attaché, British Embassy) and John Andrews (who will be Sowden's replacement as the U.K. Embassy Atomic Energy Representative).

At 12:05 p.m. Secretary of State Rusk called and said there had been a slight movement on the visa problem. A request has been made that the South African and the Israeli be given visas as representatives of the IAEA rather than of their own countries. He said we will have to wait and see what Moscow does about the request. In the event they do grant it, it might be they would seat these delegates with secretariat-type people rather than with their own delegations. He thinks we would have to follow through on that.

He also said he was surprised that U.S. government funds are paying for 45 people to attend this conference in view of the tight money situation and the balance of payments problem. He thinks we will be in for criticism on a similar meeting coming up later in Vienna at which 83 people are slated to attend. He asked if we would give some thought to cooperating on the balance of payments problem. I told him we had debated about this group (45) endlessly; at one time the list was much larger. Once we had it down to 30, but they just kept making cases for the value to us. I told him this is one field in which the Soviets are ahead of us, and, therefore, the scientific value will be unusually great. 094

July 27, 1968

Dear Roger:

Thank you for your letter of July 18, 1968.

I will try to respond to your question regarding the International Platform Association. It is basically an organization of professional speakers, but it has the additional function of presenting a forum where important personalities can speak, especially at their annual convention in Washington, D. C., which is usually held in the latter part of July. For example, at the Annual Convention this week, Vice President Humphrey, Governor Rockefeller, Senator McCarthy, John Gardner, Mayor Carl Stokes of Cleveland, Major Joseph L. Alioto of San Francisco, the Honorable Sol Linowitz, U. S. Representative to the Organization of American States, the Honorable Covey T. Oliver, Assistant Secretary of State for Inter-American Affairs and a number of Ambassadors to the United States were among the speakers.

The Association has a long history going back to William Jennings Bryan. Drew Pearson is presently a strong influence in the IPA and his brother-in-law, Dan T. Moore, Director General and Board Chairman, has recently built the Association to where it is an important force, and he plans to expand this role. The Association presently has 8,300 members. I joined the IPA two and one-half years ago on the basis of an invitation which must have been similar to that you received. I was attracted by the annual convention which I knew from newspaper accounts included a large number of interesting speakers each year. I attended the Annual Convention for the first time in July, 1966.

Last year, I was invited to be the speaker at the Annual Luncheon of the convention. My talk was so well received that I was elected to the Board of Governors the following day; they told me this was done as the

result of an unprecedented nomination from the floor. Although they hadn't asked for my approval, I decided to accept this responsibility since the duties seemed to be nominal (and this has turned out to be the case). To my surprise, this year I was asked if I would allow my nomination as President of the IPA for the coming year. Upon being assured that the duties would be nominal, I accepted and was elected President at the meeting of the Board of Governors last Tuesday. My duties so far have consisted only of attending the Annual Banquet on Wednesday at which time I was introduced to the thousand or so participants and asked to make a few extemporaneous remarks.

With respect to your question as to obligations if you became a member, I believe that these would be minimal and probably none, if that should be your desire. On the other hand, if you should like an interesting forum for a talk at one of the annual conventions, I am sure that could be arranged; however, I don't believe that becoming a member would be a prerequisite for this.

I was glad to see you, if only for a moment, on the way to the Low Jinks last Saturday night.

With best regards,

Cordially,

Glenn T. Seaborg

Dr. Roger W. Heyns  
Chancellor  
University of California  
Berkeley, California 94720

bcc: Dan Wilkes

GTS:HG  
Int'l Platform Assn.  
"H"



I said we have a very restricted travel budget for FY 1969 so we have to choose very carefully on a priority basis. I told him I would look into the matter of the 83 people scheduled to attend the meeting in Vienna.

I had lunch in my conference room with Fritsch at 12:30 p.m., followed by a walk around the periphery of the AEC grounds, along what we may try to develop as the "Seaborg Trail."

At 1:30 p.m. I met with William Rice (newly appointed AEC representative to the London office).

At 2:45 p.m. I presided over Regulatory Meeting 268, at 2:50 p.m. over Regulatory Information Meeting 307, at 3:10 p.m. over Commission Meeting 2333, and at 4:15 p.m. Information Meeting 822 (action summaries and notes attached).

Tuesday, July 30, 1968- D.C.

I worked on the slides for my talk "New Outlook for the Transuranium Elements" to be given at the symposium on the analytical chemistry of the actinide elements at ORNL on October 8, 1968.

I called Athelstan Spilhaus (President, Franklin Institute) at 11:10 a.m. and told him that one of my colleagues, Albert Ghiorso, co-discoverer of a large number of transuranium elements, continues to go unrecognized. I said I have written to the Franklin Institute recommending him for an award; my last letter was addressed to Admiral Fahrney on February 26, 1967. I told him that Ghiorso has been in my shadow too long, that I haven't been working with him for ten years, and for several years before that he was the leader of the group more than I. I said I think one of the Franklin Institute awards should go to Ghiorso. He asked what award I think would be appropriate. I said I really don't know, that perhaps the Franklin Medal might be good but perhaps not feasible. He said he would look up Ghiorso's file and see what could be done.

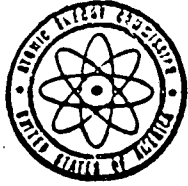
Spilhaus asked me what I think about some kind of a merger of Science Service with the Franklin Institute since it occurred to him that they are both in the same business, probably doing the same things and both losing money. He said both sides might gain something from such a merger. They have a radio and TV set-up which might supplement some of the things that Science Service has. I said it might not be a bad idea if Science Service would not lose its name and identity. I said Science Service has been thinking in terms of some kind of science center here in Washington and probably this idea could be advanced faster if Franklin Institute were involved. He asked me to give it some thought.

I had lunch at 12:30 p.m. at the Pot-O'Gold Restaurant with Julie Rubin, Stan Schneider, and James Threlkeld, followed by a walk in Lafayette Square.

We heard from the State Department that they are reluctantly accepting the solution whereby the South African and Israeli are to be issued Soviet visas as IAEA invitees, with the proviso that if they are not given proper recognition at the Novosibirsk meeting, the U.S. delegation will walk out.

At 2 p.m. Commissioners Johnson, Ramey and I met with Charles H. Weaver, Joseph C. Rengel, and Theodore Stern of Westinghouse Corporation for a briefing by Westinghouse on the nature of the problems and status of repair work at the SENA and SELNI reactor projects in Europe.

I played nine holes of golf with Steve at the Chevy Chase Club.



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

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NOV 86

H. L. Price, Director of Regulation

July 29, 1968

Approved \_\_\_\_\_

HLP

Date \_\_\_\_\_

ACTION SUMMARY OF REGULATORY MEETING 268, MONDAY, JULY 29, 1968, 2:40 P.M.,  
ROOM A-410, GERMANTOWN, MARYLAND

SECY:LGH

Commission Business

1. Minutes of Regulatory Meetings 265 and 266

Approved, subject to comments by Commissioner Ramey. (SECY)

2. AEC-R 30/86 - Proposed Amendments to Parts 20, 30, 31, 32 & 35 - Exemption of Small Quantities of Byproduct Material

Approved. (RPS)

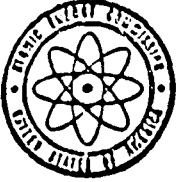
3. AEC-R 18/43 - Amendment to 10 CFR Part 40 - General License to Export Uranium

Approved. (SLR)

Original signed  
W. B. McCool

W. B. McCool  
Secretary

cc:  
Chairman Seaborg  
Commissioner Ramey  
Commissioner Tape  
Commissioner Johnson



UNITED STATES  
ATOMIC ENERGY COMMISSION  
WASHINGTON, D.C. 20545  
REGULATORY INFORMATION MEETING 307

UNCL. BY DOE  
NOV 86

2:55 p.m., Monday, July 29, 1968, Room A-410, Germantown Headquarters

1. AEC-R 186/1 - Commonwealth Edison Company, Zion Station, Units 1 and 2

Approved. (ADRA)

2. Potomac Edison Company Plans

\*\*\*\*\*

3. AEC-R 176/3 - Request for Exemption by Public Service of Colorado  
(Ft. St. Vrain Nuclear Generating Station, Docket No. 50-267)

A decision on the request is deferred. (ADRA)

4. Pre-Hearing Conference on Docket No. 50-312, Sacramento Utility  
District

To be scheduled in D. C. (ADRA-Chm. AS&LBP)

W. B. McCool  
Secretary

PRESENT:

4:20 p.m.

COMMISSIONERS:

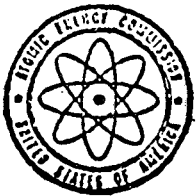
Chairman Seaborg  
Commissioner Ramey  
Commissioner Johnson

STAFF:

Mr. Price  
Dr. Beck  
Mr. Henderson  
Mr. Hennessey  
Mr. Schur  
Mr. Rubin  
Mr. Ryan  
Mr. O'Donnell  
Mr. Wells  
Mr. McCool

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Commissioners  
Dir/Regulation  
General Manager  
General Counsel  
Secretary



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

R. E. Hollingsworth, General Manager

July 29, 1968

Approved \_\_\_\_\_

REH

Date \_\_\_\_\_

ACTION SUMMARY OF MEETING 2333, MONDAY, JULY 29, 1968, 3:10 P.M., ROOM A-410,  
GERMANTOWN, MARYLAND

SECY:EGE

Commission Business

1. Minutes of Meetings 2325, 2326 and 2327

Approved, subject to comments by Commissioner Ramey. (SECY)

2. AEC 988/166 - Proposed Amendment to Mutual Defense Agreement for Cooperation with the U.K.

Approved, as revised.

The Commission requested staff discuss necessary restrictions with the U.K., explaining that if the U.K. found the conditions of the agreement unacceptable, AEC would require more time to consider alternative provisions. (AGMIA)

3. AEC 25/393 - Proposed Army Safety Rules

Discussed. To be rescheduled. (SECY)

Commissioner Ramey requested staff provide further information. (AGMMA)

4. AEC 210/7 - Proposed Extension of Contract for Services at Richland

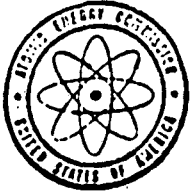
Approved. (DC)

5. AEC 16/57 - SNM Utilization Program for FY 1969 (See also AEC 16/58)

Approved. (OSMM)

Original signed  
W. S. McCool  
W. B. McCool  
Secretary

cc: Commissioners



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

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NOV 88

COPY NO. 2  
July 29, 1968

INFORMATION MEETING 822

4:20 p. m., Monday, July 29, 1968, Room A-410, Germantown Headquarters

1. Chairman's Conversation with Secretary of State Dean Rusk re the Novosibirsk Conference
2. July 25 Letter from Dr. Robert Wilson re 200 BEV Accelerator
3. General Manager's July 26 Memorandum re Presidential Panel to Assess Health and Safety Aspects of Nuclear Tests

Revisions are requested. (AGM)

4. July 24 Letter from Bengt Nelson, Sandvik Special Metals Corporation re Dedication, August 9, 1968

Staff representation is requested. (EAGM)

5. AEC 809/124 - Romanian Heavy Water Plant

Discussed and Rescheduled Wednesday, July 31. (AGMIA-SECY)

6. September Visit of Romanian Delegation

September 11 is suggested and action is temporarily held pending further developments. (AGMIA-SECY)

7. AEC 334/55 - Nomination for Position of Commander, Joint Task Force Eight

Approved. (AGMMA)

8. AEC 1286 - Cooperation with National Security Industrial Association

Noted with a suggestion. (AGMR&D-IP)

W. B. McCool  
Secretary

5:00 p. m.

PRESENT:

COMMISSIONERS:

Chairman Seaborg  
Commissioner Ramey  
Commissioner Johnson

STAFF:

Mr. Hollingsworth  
Mr. Brown  
Mr. Hennessey  
Dr. Fritsch  
Mr. Kull  
Mr. McCool  
Mr. Anthony\*  
Mr. Kratzer\*

DISTRIBUTION:

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General Manager  
General Counsel  
Secretary

\*Attendance by Topic (s)

Wednesday, July 31, 1968- D.C.

I sent a letter to Walt M. Rostow (Special Assistant to the President) suggesting that he should attend and perhaps President Johnson should attend and address the annual IAEA General Conference in Vienna in September (copy of letter attached). Perhaps Premier Kosygin and other key heads of State might also attend and address the Conference so as to advance the cause of the NPT.

At 9:45 a.m. I presided over Information Meeting 823 (notes attached).

I received a telephone call from John Macy at 10:30 a.m. He told me he would be seeing Sherman Knapp at 11 a.m. regarding the vacancy on the Commission and wondered what my current thinking on him is. I said I think it would be a perfect solution if he could be talked into it. He asked if I had any ideas for a sales pitch and I said he could stress the upsurge in nuclear power and the fact that we need someone with his background. I said it would do a lot for the utility industry. I also said the name of Gabriel Wessenauer (TVA) has come up. He is well liked by the private utilities. He said he would put him down as a possibility.

At 10:50 a.m. I presided over Commission Meeting 2334 (action summary attached).

At 11:30 a.m. I met with Pedro Faria (former Deputy in the Brazilian Congress). It was a courtesy call.

I had lunch in my office at 12:30 p.m. with Stan Schneider and Arnie Fritsch to map out my future speeches.

At 2 p.m. Arnie Fritsch and I met with Charlie Robbins (Executive Director, Atomic Industrial Forum). Robbins was in to see me about the forthcoming September 17th AIF meeting with the Commission. His concern was with the formality of past meetings and an effort to introduce more informality and candor into these discussions. His first suggestion was the possibility of limiting AEC staff attendance in the hope that this would introduce the note of informality.

After some discussion it was generally agreed that a meeting with the Commission in Washington with or without staff would always have a certain air of formality. As a possible solution to this, I suggested an all-day meeting at Airlie House as a possible means of introducing the desired informality. Charlie Robbins agreed to follow up on this matter with Fritsch for a meeting perhaps in the spring of 1969. The September 17th meeting will, however, follow the previous format with a limitation on the number of topics to be discussed in a plenary session. The topics will be private ownership of enrichment facilities, safeguards, and reactor licensing. The meeting will start at 3 p.m. and run through to 5:30 p.m. to be followed by cocktails and an open dinner invitation on a cash basis.

At 2:45 p.m. I met with Arnie Fritsch, Edward Wenk, and Glenn Schweitzer to go over the agenda of the National Council on Marine Resources and Engineering Development meeting to be held on Friday, August 2nd, at which I will preside for the Vice President (who will be out of town on other business).

At 3:30 p.m. Commissioners Ramey and Tape and I, with Bob Hollingsworth and Paul McDaniel, met with Bob Wilson, Norman Ramsey, Harry Smyth and Edwin Goldwasser to discuss the problem of keeping Wilson as the NAL Director despite the reduced budget. We will write Wilson a letter (copy of letter attached to August 29, 103

JUL 31 1968

Mr. Walt W. Rostow  
Special Assistant to the President  
The White House

Dear Walt:

In previous years, I have urged you to attend the annual General Conference of the International Atomic Energy Agency which is held each fall in Vienna and at which I have served as Chairman of the U. S. delegation since 1961. The Conference will be convened this year in Vienna on September 24 and for a number of reasons I believe that your attendance would be even more desirable and useful than at any time in the past. In fact, the special significance of this occasion leads me to make a suggestion which I believe deserves rather serious consideration.

I believe that there is widespread agreement that the Non-Proliferation Treaty is one of the outstanding achievements of President Johnson's administration, an achievement which is due in large measure to the President's personal efforts and leadership. The International Atomic Energy Agency is, in effect, the body which has the responsibility for the effective implementation and observance of this Treaty. The IAEA's importance, which has been growing year by year and which has been recognized in past years by special messages from the President, has now increased dramatically as a consequence of the NPT and the responsibilities which it places on the Agency. I, therefore, believe that consideration should be given to the possibility that the President personally appear before the General Conference to deliver his annual message. The President's personal appearance at the Conference would seem to me to be a fitting epilogue to his efforts which led to this dramatic breakthrough in the prospects for peaceful resolution of one of our most pressing international problems.

While this is a point which lies outside the province of the Commission, it seems to me that such a visit would also be consistent with other objectives of the President.



I have in mind the possibility that other heads of State, including Premier Kosygin, might also agree to appear before this General Conference if the President himself were to do so, thus offering the opportunity for discussion between them.

I would be interested in knowing whether you believe this idea is worth pursuing. I would be glad to discuss it with you and provide any information concerning the Conference which you may require.

In the event the President is unable to personally attend the Conference I have attached a proposed message from him for review and appropriate clearance. I am presently planning to present to the Conference a statement concerning the central role we anticipate the IAEA will play in achieving the objectives of the Treaty, not only the safeguarding against diversion of nuclear materials to military uses but also those aspects of the treaty that are concerned with the development of research, production and use of atomic energy for peaceful purposes. My remarks would obviously be modified if the President would be speaking at the Conference.

I will look forward to hearing from you about these suggestions in this letter, and in any case I would hope to hear whether it would be possible for you to attend the Conference.

Cordially,

Glenn T. Seaborg

Enclosure

Message from President Johnson  
to the IAEA Conference

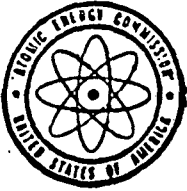
I welcome this opportunity to speak, through Chairman Seaborg, to the delegates to the Twelfth General Conference of the International Atomic Energy Agency.

A year ago, I said that we stood at a crossroads in man's quest for peace and progress in that, if we could confine the future uses of atomic energy to peaceful purposes, we could improve the lives of people all over the world; whereas if more nations should be inclined to follow the costly road toward military exploitation, the atom would be a heavy burden on their ascent to a better life and an increasing threat to the peace of the world.

Now with the promulgation of the Non-Proliferation Treaty, we have taken a momentous first step toward ending the peril of nuclear war and ensuring the equitable sharing of the peaceful uses of atomic energy under effective safeguards for the benefit of all nations. As I said at the United Nations on June 12, following the adoption of the treaty, "Nations that were long beset by differences have in this great treaty found common ground in their needs to use the incredible force of the atom for peace and not for war."

I would like to ask that each of you do everything he can to help bring about his government's prompt ratification of this treaty so that no time shall be lost in bringing it into force.

With congratulations for your past accomplishments, I send you the best wishes of the people of the United States for your future endeavors.



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

COPY NO. 2  
July 31, 1968

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INFORMATION MEETING 823

9:50 a.m., Wednesday, July 31, 1968, Chairman's Conference Room, D.C.

1. Dr. Hornig's Query to the Chairman re Attendance at the IAEA General Conference
2. July 30, 1968 Presidential Request for a Report on Significant Legislation

The Chairman said the President's request is for a report covering the period November 22, 1963 to August 1, 1968 and is due at the White House August 2 or August 5. Staff action is in process. (AGM)

3. July 29 Memorandum from Mr. Harris Re Draft White House Announcement on Bikini and Statement by Chairman Seaborg

Approved. (AGM-PI)

4. AEC 1084/30 - Revision of 10 CFR Part O and AEC Manual Chapter Appendix 4124, "Conduct of Employees"

Approved. (GC-PER)

5. AEC 994/58 - Price Reductions on Carbon 14, Tritium and Polonium 210

Noted.

6. Commissioner Ramey's Query re Food Irradiation Hearings

Mr. Fowler said the hearings would be resumed in September and he is meeting with the Joint Committee staff today.

7. Commissioner Ramey's Query re the Artificial Heart Program

Mr. Fowler said Mr. Schultze, BoB, will discuss the Program with AEC and NHI representatives soon.

8. Letter to Colonel Richard M. Hunt re Nuclear Test Program Panel

Approved with changes for delivery to Colonel Hunt today. (AGM)

9. AEC 1195/2 - Proposed Short Course for Foreign Nationals on the Regulatory Function

The Commissioners requested staff exploration of a two-week course for foreign nationals to precede or follow the MIT summer course in 1969 and the use of qualified AEC consultants. (AGMIA-DDR)

10. AEC 152/237 - Practical Value Legislation

Approved with changes. (GC)

11. Response to Request from Senator Aiken for Information on AEC-Dept. of Interior Procedures re Thermal Effects

Commissioner Ramey requested consideration on Friday, August 2. (GC)

12. Mr. Price's Oral Report on Staff Discussions with TVA and Los Angeles Water and Power

13. Portland General Electric Company Request for a Meeting with the Commissioners

To be scheduled. (SECY)

W. B. McCool  
Secretary

10:55 a.m.

PRESENT:

COMMISSIONERS:

Chairman Seaborg  
Commissioner Ramey  
Commissioner Johnson

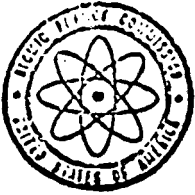
STAFF:

Mr. Hollingsworth  
Mr. Brown  
Mr. Hennessey  
Mr. Rubin  
Mr. Kull  
Mr. McCool  
Mr. Harris \*  
Mr. Fowler \*  
Mr. Price \*  
Dr. Beck \*  
Mr. Schur \*  
Mr. Kratzer \*  
Mr. Yore \*

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Commissioners  
General Manager  
General Counsel  
Secretary

\* Attendance by Topic (s)



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WASHINGTON, D.C. 20545

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NOV 88

July 31, 1968

Approved \_\_\_\_\_

REH

Date \_\_\_\_\_

R. E. Hollingsworth, General Manager

ACTION SUMMARY OF MEETING 2334, WEDNESDAY, JULY 31, 1968, 10:55 A.M.,  
CHAIRMAN'S CONFERENCE ROOM, D. C. OFFICE

SECY:LGH

Commission Business

AEC 809/125 - Section 57b. Determination on Romanian Heavy Water Plant  
(See also AEC 809/124)

Approved. (AGMIA)

Original signed  
W. B. McCool

W. B. McCool  
Secretary

cc:  
Chairman Seaborg  
Commissioner Ramey  
Commissioner Tape  
Commissioner Johnson

1968 journal) pledging to do everything we can to get the funding required to keep the 200 BeV Accelerator on the five-year construction schedule. We will try to get the JCAE to endorse this.

I called Don Hornig and arranged for Wilson to see him. Hornig said he will also pledge to try to get the White House to adhere to the five-year schedule. (Hornig saw Wilson and pledged his cooperation.)

I wrote to my mother to try to cheer her up and to bring her up to date on our activities (copy attached).

July 31, 1968

Dear Mom:

I am enclosing some pictures of Lynne's wedding which I think turned out quite well. We will send some to Uncle Karl also, so that you won't have to send any of these to him unless you especially want to do so. You might want to give some of these to Jeanette.

Steve took his test for a driver's license yesterday and passed. We are very happy about this. Now we have a record of Pete, David and Steve all passing the first time they took the test.

Eric still has his paper route. As I believe I told you, he is delivering the Evening Star and doing quite well at it. At the end of each month he has to collect from all his customers, but he manages to do this all right. He is sharing the route with one of his friends, Joe Canary, who lives across the street from us.

We are still planning to go on our vacation, starting a week from Saturday, that is on August 10th. So far as we know Lynne and Bill are planning to go with us.

David, of course, is home for the summer. He spent a good part of last week with some friends who have a house on Chesapeake Bay. Here he had a chance to hunt for fossils and sharks' teeth and things of that kind.

David, Steve, Eric and I managed to get in a round of golf over the weekend. Steve and Eric are beginning to play quite well and they enjoy the game very much.



-2-

The weather in Washington has been quite cool during this last week, although it was very hot before that. I hope that the weather in southern California has continued to be as nice as it was during my two recent trips there to visit you.

We all hope that you are getting along all right and feeling better.

With love,

GTS:HG  
Seaborg Family

Thursday, August 1, 1968 - D.C.

At 9:30 a.m. Jim Ramey, Milt Shaw, and I met with Secretary Udall, Max Edwards, David Black, and Jack Hunter in Udall's office to discuss the future of the Southern California desalting project. Udall said talks with representatives of Southern California Edison had suggested a gas-oil plant at Huntington Beach might be more economical than a nuclear plant even at San Onofre. Ramey, Shaw, and I disputed this. I cited the example of Pacific Gas and Electric and other utilities which are choosing nuclear over fossil-fueled plants. We decided to have a comparative cost study made, which would be due by September 15th, with all participants involved, and to contact them immediately to get it started. We want to get this started before Udall starts his vacation this Saturday.

When I returned to my office at 11 a.m., I recorded on tape a statement for radio use describing the decision to allow Bikinians to return to Bikini Atoll (as a result of a study showing it is safe.)

I called Jeanette to get a report on Mother. She is still tolerating the radiation fine. Jeanette and Ray are leaving on Saturday for a ten-day vacation in Oregon and Washington. Ethel Clauss (my cousin) will look in on Mom while Jeanette is away.

I had lunch in the office at 12:30 p.m. with Arnie Fritsch and Julie Rubin.

About 2:15 p.m., on a conference phone call in our respective offices, Secretary Udall and I talked to MWD representatives in Los Angeles - Joe Jensen, Henry Mills, Frank Clinton, Bill Peterson, Butler and Smedley. We described our plans for a comparative study involving all participants, on a September 15th time scale, of a gas-oil and nuclear plant. They agreed in general. Jensen suggested including the Newport Beach site in the study.

I talked earlier to Robert H. Gerdes, Chairman of the Board, PC&E, to confirm his views that nuclear plants on their system are economically competitive. He said they are and will give me supporting data in the form of their application to the California Public Utilities Commission (PUC). This confirms what I told the group this morning.

Congressman Chet Holifield called to put in a word for the petition of the PSC of Colorado to the AEC to be allowed to start construction of the foundation for their HTGR.

Jim Webb (NASA) called to say he has talked to Senator Clinton Anderson today to tell him his budget doesn't allow him to continue more than "holding-action" work on the NERVA Engine, i.e., at the budget level of \$325 million. This would not match the \$53,000,000 which the AEC now has budgeted. I said I would want to think about this and call him back next week after he has finished his two-day (Monday and Tuesday) internal budget priority review process.

I called John Macy at 4:30 p.m. to ask him about his conversation with Sherman Knapp. He said it went very well; he was impressed with Knapp who seemed quite interested in the position and sent a letter to the President recommending Knapp. Since doing so, however, he has received comments about how such an appointment could create problems with certain members of the Congress because of Knapp's private utility background. I told him since I last talked to him I have also heard the same thing and think maybe we should be a little concerned about

this. There might be some public vs. private utility aspects that would prove embarrassing. I said I thought Wessenauer would be acceptable to both public and private utilities. I asked him if he gave the President any indication of a problem and he said he mentioned there might be some criticism.

Friday, August 2, 1968 - D.C.

At 10 a.m. I chaired the meeting of the National Council on Marine Resources and Engineering Development in Room 444, EOB. Attendees included Surgeon General Stewart, Kincaid (Commerce), Haworth (NSF), Ignatius (Navy), Bohlen (State), Cain and McBroom (Interior), Paine (NASA), James (AID), Galler (Smithsonian), Schweitzer and Wenk (Marine Council), Welsh (NASC), Johnson (NSC), Baer (OST), Scoville (ACDA), Commander Junghans (Navy), General Cassidy (Corps of Engineers), and Pecora. I began by indicating that the Vice President had asked me to again assume this task since he had to be out of town on other business. I welcomed the new members: General William Cassidy (Chief of Corps of Engineers), James (Assistant Administrator of the War on Hunger), and William Stewart (Surgeon General of the United States). I further noted that this would be the last meeting for Dr. Stan Cain and expressed the Council's regret on losing him to the University of Michigan.

I then asked Wenk to report on the last meeting. Wenk reported that the Oil Spill Emergencies Action Plan has been developed and that the report on the International Decade of Ocean Exploration has been produced and 15,000 copies have been distributed to date. Wenk also noted his trip abroad to the Soviet Union in regard to this latter program. He further reported on the contract that has been undertaken with NAS-NAE to begin the work on this Decade program. Finally, Wenk noted the two reports that the Council staff has prepared on marine science activities of other nations.

I then turned to the first item on the agenda, "Policy Development for Rational Use of the Coastal Zone." I noted the complex nature of the question with its many aspects to industrial usage, offshore oil, recreation and shipping. I said that while many studies are under way at present, it is important to begin to consider what steps might be taken soon. To begin the presentation, I asked Cain who chairs the Committee on Multiple Use of the Coastal Zone. Cain indicated that the 19 agency members of his committee reflect the broad interest and complexity of this question. He noted that the Committee's intent is quite modest - not to find a solution but rather to recognize the nature of the coastal zone problem; to find where the agency interests and missions are in conflict. He then turned the briefing over to James McBroom, the Executive Secretary of the Committee, who gave a prepared talk which stressed the importance of the coastal zone and particularly the irreversible changes that were taking place in the creation of new land, etc. He noted that from a regulatory viewpoint only local governments with their zoning powers have effective controls but in these cases the tax revenues and jobs incurred through the intensive development of the coastal zone override the conservation aspects. To illustrate this he handed out editorials from Life and The Washington Post. I then addressed the staff paper before the Council which asked for preparation by December 1st of the necessary proposed action and legislative plan and, hearing no further Council comments or statements to the contrary, assumed the Council's consensus on this item.

I then turned to the second item, the "National Marine Science Program in the Arctic," and noted that the Council's objective has been to develop a plan of Polar research and asked the Committee on Marine Research, Education and

Facilities, chaired by Bob Frosch, to study activities in the Arctic. In the absence of Frosch, Dr. Pecora was asked to present the report. Pecora began his presentation by noting that in 1967 questions were raised by the Council regarding the difference in emphasis between the Arctic and Antarctic program. He said that the Soviet Union has a much larger effort in the Arctic and the U.S. a larger effort in Antarctica. It was the Committee's view that the Council should endorse a stronger marine sciences program in the Arctic and he noted the recommendations the Committee had placed before the Council. There was further discussion regarding the recent finding of large oil and gas reserves at Prudhoe Bay in Alaska and the possibility of utilizing the northwest passage of icebreakers which might be open in two to six months to ship this oil. I said that it is my belief that these polar routes will be traveled some day.

The discussion then took a digressive turn and a great deal of discussion ensued as to the organizational course to be followed in furthering these recommendations. Specifically, Pecora for the Committee on Marine Research, Education and Facilities noted the Committee's preference to use the existing NSF Polar Science Committee headed by Tom Jones to continue this study. This Committee could be expanded on an ad hoc basis by some members to include transportation, security, commerce, etc., interests. Haworth of NSF said they would be agreeable to this. Wenk noted that this might not be the best course to pursue. He proposed that he might best determine the course based upon consultation with Council members regarding the appropriate representation necessary to study the subject and then a decision would be made to temporarily expand the existing NSF Committee or form a new ad hoc committee with possibly a representative of the OST as chairman. This discussion, however, was not quickly abated since Pecora remained firm and it became clear that a compromise, which had been reached outside the Council at a luncheon meeting by Wenk, had come unstuck. After considerable discussion as to how and what this ad hoc committee should do I concluded the discussion by noting that with the somewhat vague and confused understanding the Council had, the consensus seemed to indicate that matters should proceed with Wenk consulting the agencies to arrive at a satisfactory course.

I then proceeded to the last agenda item, skipping the third item in view of Ambassador Bohlen's time requirements, and the Council took up the question of the "Legal Regime for the Seabed." Ambassador Bohlen read a brief paper summarizing the questions which have been raised about the seabed, beginning with the Maltese proposal, and ending with the U.N. ad hoc committee on the seabed where the U.S. is attempting to take the leading role. One factor of this role is the U.S. championing of the International Decade of Exploration. Wenk noted that both the House and Senate have resolutions on this Decade but that in the House it appears that this resolution might become a partisan issue. Wenk and Bohlen also noted the question of national boundaries and indicated that the Petroleum Council which had been asked to comment wished an assertion of sovereignty very far out to sea in conflict with our present position. However, Bohlen noted efforts were under way at State to look at this question of the international limit.

I brought this particular discussion to a close and then Ambassador Bohlen turned to the question of government-wide procedures to insure that the activities of all agencies related to the seabed are conducted in a manner consistent with U.S. policy. I asked that similar to the existing cooperation of the Interior Department in terms of keeping State informed, that other agencies keep State informed on their work on the outer continental shelf and the seabed. I called

everyone's attention to a July 26th paper that was issued which asked specifically for such consultation. Again I, hearing no comments to the contrary, assumed Council's consensus.

Then I turned to Dr. Herbert Scoville of ACDA and asked him to review the international deliberations going on concerning seabed arms control. Scoville briefly reviewed arms control measures for the seabed and gave the pros and cons for the three levels of action. The first - banning of all military purposes from the seabed, the second - reserving the seabed for only peaceful uses, and the third - avoiding emplacement of weapons for mass destruction. He noted the tortured discussions in the Committee of Principals and at the U.N. and specifically called attention to the President's personal decision in arriving at a position for the U.N. draft resolution which the United States offered. Finally, he indicated the U.S. position would be finalized on or about August 15th covering the remaining problems of verification, future military options and the question of international limits on the ocean. I asked Admiral Joseph McDevitt if he had any comments and the Admiral indicated Scoville had made a fair presentation. There was some further discussion regarding the definition of coastline and comparison of the outer space treaty with the seabed treaty prior to the completion of this item.

I then turned to the last remaining item "The Sustained Planning of Marine Environmental Prediction Programs." I noted that the Committee on Ocean Exploration and Environmental Services has prepared a five-year plan including the budgetary implications and turned to Hahn, Executive Secretary of the Committee, who made the presentation on behalf of Dr. White who was absent. Hahn in turn asked Commander Junghans to give a detailed briefing on MAREP which the Commander did as a slide talk in a darkened room. Hahn again took the podium and asked the Council's endorsement of MAREP as a planning guide for agency use in 1970 and for the Council's approval to establish planning staff with budgetary and personnel support from agencies. There was some specific questioning on some details such as data processing of these environmental measurements but I again noted there were no comments to the contrary and assumed Council approval.

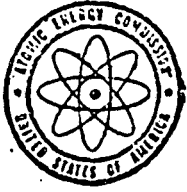
In closing, Wenk reflected that the Hahn, Junghans, Pecora, and McBroom's presentations indicated the valuable contributions of these working staffs. I seconded this acknowledgement and noted that I had really not been sensitive to the fine supporting committees that the Council had until today's presentations.

I attended a luncheon Information Meeting 824 at 12:45 p.m., a 2:45 p.m. Regulatory Information Meeting 308, and a 3 p.m. Executive Session (Adjudicatory) 175 (notes and action summary attached).

At 3:30 p.m. I met with Howard Brown and Richard Hewlett to review the draft writeup of the AEC history for the Johnson Library.

At 4 p.m. Takao Nakajima, Scientific Attaché of the Japanese Embassy, brought me a nice purse for Helen from Minister Nabeshima.

Secretary Udall and I, in a conference call in our respective offices, spoke to William Gould and Jack Horton of Southern California Edison Company in their Los Angeles office to discuss the forthcoming study we discussed yesterday with MWD representatives. I also called Joe Quinn (LADWP) and later Edgar Kanouse (LADWP) to acquaint them of our plans. They all agreed to participate. We have set a deadline of September 15th to complete the study.



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

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COPY NO. 2  
August 2, 1968

INFORMATION MEETING 824

12:40 p. m. , Friday, August 2, 1968, Chairman's Conference Room, D. C.

1. Commissioners' Discussions with Secretary of Interior Udall, et. al., re Bolsa Island Project Alternatives
2. July 30 Letter from Paul Nitze, Deputy Secretary of Defense, re Preparation of Draft Memorandum for the President

Noted.

3. Trip Steel Patent Case

The Chairman requested expedited staff action. (AGM-GC)

4. Agenda for the Weeks of August 5, 12, and 19 and Agenda for the Weeks of August 26 and September 2, 1968

Approved. (SECY)

5. NTS Events (See General Giller's July 31 Memorandum)

Noted. (AGMMA)

6. AEC 1282/6 - Execution Data for a Portion of Bowline I Events

Approved. (AGMMA)

7. Mr. Winter's July 31 Memorandum re History of US Nuclear Test Public Safety Programs

The Chairman suggested review by the Commissioners. (AGMMA)

8. Mr. Brown's Oral Report on His Meeting with Col. Hunt re Presidential Panel to Assess Health and Safety Aspects of Nuclear Tests

9. AEC 1230/15 - Reply to ACNMS July 11 Report

Approved. (SMM)

10. AEC 988/166 - Proposed Amendment to Mutual Defense Agreement for Cooperation with the U. K.

Approved with a revision in the amendment to the technical annex. (AGMLA)

11. AEC 459/40 - Alternatives for Government Enrichment Services

Further analysis of Cases 3, 5, and 6, a briefing by TVA, and discussion with Mr. Joe Swidler are requested. (AGMP&P)

12. AEC 459/39 - Solicitation of Public Views on Gaseous Diffusion Plant Transfer

Transmittal of Part I to the Bureau of the Budget is approved. (AGMP&P)

13. AEC 716/12 - Visit of FRG Nationals to Nevada Test Site

Approved. (BM)

14. Attendance of Professor Lebedev, USSR, at Los Alamos Conference

Approved. (AGMLA)

15. AEC 107/25 - Amendment of Criminal Penalty Provisions of Atomic Energy Act

Approved. (GC)

16. Pending Contractual Matters Report No. 268

Noted. (PAR)

17. AEC 334/56 - Proposed Letter to Dr. Walske Concerning JNTPG Discontinuation

Noted.

18. Mr. Tremmel's August 1 Memorandum re Status of Justice Department Review of Combustion Engineering's Purchase of a Large Block of Stock in United Nuclear's Corporation

Noted.

19. Mr. Traynor's August 1 Memorandum re Criminal Records as a Bar to Employment National Alliance of Businessmen Request

Noted.

20. Special Citations

Approved with revisions for presentation on September 16. (AGM-SECY)

21. Interpretation of the NPT by the Government of Israel

Commissioner Ramey requested information. (AGM)

22. AEC 359/78 - Uranium Supply Policies

To be checked with the Commissioners' offices prior to release. (RM)

23. Commissioners' Meeting with Admiral Rickover

To be scheduled in September. (SECY)

W. B. McCool  
Secretary



PRESENT:

COMMISSIONERS:

Chairman Seaborg  
Commissioner Ramey  
Commissioner Johnson

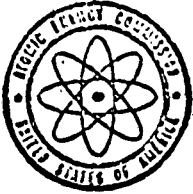
STAFF:

Mr. Hollingsworth  
Mr. Brown  
Mr. Schoenhaut  
Mr. Hennessey  
Dr. Fritsch  
Mr. Kull  
Mr. McCool  
Mr. Winter\*  
Gen. Crowson\*  
Mr. Quinn\*  
Mr. Sapirie\*  
Mr. Deal\*  
Mr. Kratzer\*  
Adm. Rickover\*  
Mr. Givens\*  
Mr. Hudgins\*

DISTRIBUTION:

Commissioners  
General Manager  
General Counsel  
Secretary

\*Attendance by Topic (s)



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REGULATORY INFORMATION MEETING 308

2:45 p.m., Friday, August 2, 1968, Chairman's Conference Room, D. C.

1. Mr. Price's August 1 Memorandum re Response to Senator Aiken's Letter of July 25 re AEC-Interior Arrangements on Thermal Effects

Approved with changes and for discussion with the Department of Interior prior to signature. (ADRA)

2. Mr. Price's August 1 Memorandum re Dual Regulation for Federal Water Pollution Control Administration (FWPCA) and Atomic Energy Commission (AEC) as related to Radiological Criteria - Guidelines on Water Quality Standards

Noted.

3. Oral Report on Meeting with Niagara Mohawk and New York State Representatives

4. AEC-R 171/1 - Contract Negotiations - Response of Reactors to Ground Motion

Staff will proceed with the changes accepted by Mr. Newmark. (DC-ADRA)

5. Issuance of Notice of Hearing on the Maine-Yankee Reactor Plant

Authorized. (ADRA)

\*\*\*\*\*

6. AEC-R 176/3 - Request by Public Service of Colorado (Ft. St. Vrain Nuclear Generating Station (Docket No. 50-267))

To be discussed with Mr. Arthur Murphy. The Chairman will call Congressman Chet Holifield. (Chm. AS&LBP-Fritsch)

W. B. McCool  
Secretary

3:05 p.m.

PRESENT:

COMMISSIONERS:

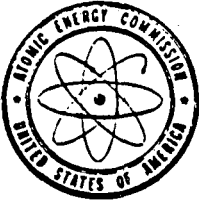
Chairman Seaborg  
Commissioner Ramey  
Commissioner Johnson

STAFF:

Mr. Price  
Dr. Beck  
Mr. Henderson  
Mr. Hennessey  
Dr. Fritsch  
Mr. Yore  
Mr. McCool

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NOV 88

August 2, 1968

File

ACTION SUMMARY OF EXECUTIVE SESSION (ADJUDICATORY) 175, FRIDAY, AUGUST 2, 1968, 3:05 P.M., CHAIRMAN'S CONFERENCE ROOM, D. C. OFFICE

SECY:WLW

1. Northern States Power Company (Prairie Island Nuclear Generating Power Units 1 and 2), Docket Nos. 50-282 and 50-306 (See Secretary's July 26 Memorandum)

The Commission agreed to permit the Initial Decision to become final on August 8, 1968. (SECY)

2. Virginia Electric and Power Company (Surry Power Stations Units 1 and 2), Docket Nos. 50-280 and 50-281 (See Secretary's July 31 Memorandum)

The Commission agreed to permit the Initial Decision to become final on August 9, 1968. (SECY)

Original signed  
W. B. McCool

W. B. McCool  
Secretary

cc:  
Chairman Seaborg  
Commissioner Ramey  
Commissioner Tape  
Commissioner Johnson  
General Counsel  
Solicitor

Aaron Gerlich and Harvey Washington had dinner with our family; Dave was also there.

Saturday, August 3, 1968 - D.C. - Home

I spent the morning at the D.C. office. Dianne accompanied me and brought a gift for Pat Goodwin (a letter-writing portfolio) in recognition of Pat's leaving us at the end of next week to spend a year studying at Stanford University. Dianne, Pat, Doris Knief, Arnie and Kris Fritsch, and I had lunch at the H Street Hot Shoppe.

Eric and I played 18 holes of golf at the Chevy Chase Club. Chip Bohlen played in the foursome which started just ahead of us.

Sunday, August 4, 1968

I worked on my autobiographical chapter for Irving Stone's University of California Centennial Volume, There Was Light.

Helen, Dave, Eric, Dianne and I played miniature golf on the Putt-Putt course just off Rockville Pike in Rockville.

Monday, August 5, 1968 - Germantown

At 9 a.m. I called Mr. Ratcliffe (in the absence of Under Secretary of Interior David Black). I said we have a program of cooperation and study with the Southern California group to get going, and I wondered what Dave Black thought was the best way of getting it on the road. He said he thought that the first step should be to designate our representatives for the study group (Interior has selected Dr. Jack Hunter and Ray Durante), and then get a firm date from the California people. He said he would try to talk to Dave Black today, as well as Jim Ramey. I asked whether he thought that Udall would be making any more phone calls out there, and he replied that he did not think so. I emphasized the need for us to take the initiative, because unless we do, nothing will happen.

I discussed with Stan Schneider and Arnie Fritsch the preparation of my preface to the Historical Guide to AEC Progress under the Johnson Administration.

I had lunch in my conference room with Schneider and Fritsch to discuss various business items.

I called Al Ghiorso, Isadore Perlman, and Burris Cunningham to discuss the program for the November 1969 Welch Conference on the Transuranium Elements, of which I shall be chairman and organizer.

At 2:40 p.m. I called John Macy and suggested he should probably check with Aiken, Muskie, Holifield, and Pastore about Sherman Knapp as a possible Commissioner, and possibly Hosmer and Anderson if he wants to. I also mentioned Ribicoff, Dodd, Scoop Jackson, Magnuson and Margaret Chase Smith, although I wouldn't recommend the latter because she is sure to be negative. Macy said he hasn't had any reaction on Knapp from the President which could mean he wouldn't go along with it and that we should keep looking. I said I thought G. O. Wessenauer would be the next one to check on.

At 3:30 p.m. I called Matthew B. Coffey (White House) and asked Coffey about

several personnel matters that we have sent to the White House. He said that the President has with him in Texas the papers regarding new GAC members, including Lombard Squires, the appointment of a Federal Representative to the SINB, and the IAEA General Conference delegation. He said that the IAEA delegation list which he sent to the President included only the Commissioners and Bill Foster, but not the outsiders, because they had hoped to get this through before Congress recessed, but, unfortunately, they were unsuccessful in doing this.

Helen, with Dianne, drove Dave, Steve, and Eric to see and hear "The Four Seasons" at the Shady Grove Music Fair in Rockville. Helen and Dianne planned to see a movie while waiting for the boys.

Helen bought a tape player for the Chrysler today.

Tuesday, August 6, 1968 - Germantown

Ambassador Thornsteinsson called me at 10:30 a.m. and reminded me that he had spoken to me about a year ago regarding a trip to Iceland. He asked whether it might be possible for Mrs. Seaborg and me to make the trip this year around October 11th. He would suggest that we arrive on Thursday, October 10th. On October 11th there would be the main event - the annual dinner-dance of the American-Icelandic Society, at which I would give a short 15-minute talk. Also, there would be an invitation to speak at the University - possibly on Saturday, October 12th, although October 10th or 11th could be possibilities. I said that I have speaking engagements during that time, but I would check my schedule and call him back. The Ambassador will be away on Wednesday and Thursday, but he will be back on Friday (August 9th).

From 10:45 a.m. until noon I met in my office with George Kavanagh, Milt Shaw, and Roger LeGassie to discuss the report on converter reactors prepared at the request of the Bureau of the Budget. This report is so biased against the HTGR and the Molten Salt Reactor that I displayed my extreme displeasure and asked that the report be entirely recast with a proper focus.

I opened the discussion by inquiring about the present status of the MWD project. Shaw related that the MWD board appeared to be uninterested in San Onofre and also expressed little interest in a fossil fueled system. Shaw reported that a study is underway using Southern California Edison data to evaluate the alternatives available. Sargeant & Lundy is being brought into the picture for assistance in view of Bechtel's reluctance to take a strong position against some of the Southern Cal Edison conclusions.

I emphasized the need for early action in this area. Shaw indicated some problem in obtaining complete data from Southern Cal Edison and I suggested making our own comparisons with the information available and if necessary he would again call Gould or Horton to obtain the complete information they had promised.

I then noted the recent letter from Alex Radin and asked that a careful reply responding to each issue in the letter be prepared in order to avoid any further complications in our relationship with APPA.

I noted a letter just received from Atwood (North American Rockwell) and Kuhns (General Public Utilities) dated August 2, 1968, on their proposed project in the LMFBF program that requires consideration of 1970 funding.

I then indicated the main purpose of calling the group together was to discuss the advanced converter study that was recently circulated for review prior to transmittal to the BOB. Kavanagh reviewed the background and preparation of this report. He indicated the results of data from all of the RDT task forces evaluating the various reactor concepts were being used by Battelle Northwest to develop a computer program to assist in further evaluations in the nuclear power field. The advanced converter report represented early results from use of this computer study but as Dr. Kavanagh indicated in his transmittal of the report, neither the computer program nor the data available to date was sufficiently developed to offer any desirable results.

I asked specifically who was responsible for drafting the report and Shaw stated it was a Mr. Anderson in Merrill Whitman's group. Shaw stated the assumptions were based on the BOB inquiry for a study in this area but I expressed very strong disagreement with the assumptions used and that they were, in fact, based on the BOB inquiry. I also stated it would be necessary to completely recast the report from beginning to end to properly reflect an accurate picture.

I offered a clear example of an incorrect assumption in the report where the advanced converter was competing with the LMFBR for a position in the nuclear power supply picture. It was my view that the advanced converter should be looked to and supported as a backup to the LWR program in case the LMFBR was late or its development was unsuccessful.

I expressed considerable concern and amazement that staff would suggest sending material such as in the advanced converter report to the BOB unless there was a desire to completely kill the program. Kavanagh defended the staff by stating it was certainly not their intent to kill the advanced converter and specifically the HTGR project. He further added they would prefer to withhold the report until better data is available and what they have is better understood but did not think that the BOB would accept the necessary additional several months' delay.

I re-emphasized an earlier point that the report should not concentrate on a comparison with the LMFBR program nor should it be used to further sell the need to concentrate available Commission resources in this area. I stated positively and forcefully that I am very suspicious about the motives of this report in light of the tone of its presentation and past performance in attempts to kill certain projects. Shaw expressed concern about this comment being a specific remark directed to him. I indicated equal concern that he had been unable to communicate his position and views in the advanced converter area and other areas in the reactor development program. He made it very clear that changes were expected and that only results would change his views on RDT intent in the conduct of their program.

I next questioned the need for the data on the HWOCR in the report and suggested reference to the Canadian heavy water system and the European HTR program should not be overlooked in the comparisons and conclusions of our study.

LeGassie offered some general comments about the data supporting the views expressed by Shaw during his comments about the questions raised by me but agreed that the tone of the report may not properly reflect the information available from the data. Kavanagh indicated that he would review the material again with RDT staff and attempt to prepare an appropriate revision to the study.

I called Dr. Zimmerman and learned that Mother is still tolerating her radiation treatments well.

I had lunch at 12:30 p.m. with Abe Friedman and Arnie Fritsch to discuss the possibility of visits to Czechoslovakia, Romania, and Portugal in connection with my attendance at the IAEA conference next month.

I played 18 holes of golf at the Chevy Chase Club with Steve. Eric joined us for a few holes after he finished his paper route.

Wednesday, August 7, 1968 - D.C.

I called Hornig at 9:30 a.m. about three things: 1. His July 29th letter (copy attached) in response to my invitation to attend the IAEA Conference. In answer to his question as to what role he might fruitfully play, I said it would be just the role of being there and meeting his counterparts from other countries. He would also get the general background of what will go on concerning the NPT and the role the IAEA will play in that. It isn't a definite role but more or less the same as the rest of us play. He said he has an Australian trip to think about also, but he will give the Vienna trip some more thought and let me know.

2. The panel to investigate the safety aspects of NTS testing. I told him we heard that Look magazine is going to run an article in a forthcoming issue on this subject which will probably be very critical and if we wait and announce the panel after that it will look bad. I asked if it would be possible to announce it before the article is published. He said he has run into a snag on the panel. The Vice President sent a note to the President suggesting that Hornig do this and the President returned it with no comment. Hornig said he will now have to go back to the Vice President to see where it stands. I said it may be possible the President doesn't want to do this in which case we hope he would be willing to back us as he did in the case of BOXCAR.

3. GAC recommendations for the Fermi Award. The GAC has recommended the following people in the approximate order of their preference and in any combination: General Groves, Norris Bradbury, Sigvard Eklund and John Wheeler. I told him I just wanted to get his initial reaction. I said I thought Wheeler obviously meets the criterion of a nuclear giant but thought Eklund might not be a wise choice (since it might look like we were trying to bribe him). I said Ramey has another candidate, Wally Zinn, but the Commission has not made any decision as yet. He said he did not have any initial reaction to the names other than some of them might represent a new category; he will give it some thought.

At 10:30 a.m. I met with the Executive Committee of the Committee of Principals in the Secretary of State's Conference Room. Present were Rusk (Chairman), Foster, Fisher, Bohlen, Hornig, Keeney, Helms, Scoville, Harold Brown, General Wheeler, Nitze, Clifford, Warnke; plus Labowitz, Kirby Gean, Ivan Selin (DOD), et al. Rusk opened the meeting by emphasizing that there is a need for finding positive ways to make progress in arms limitation. He suggested that the meeting start with a status report on the work of the Interagency Working Group, and called on Adrian Fisher to give the report.

Fisher called attention to the fact that the Working Group's conclusions were summarized in his memorandum to the Executive Committee of the Committee of Principals, dated July 31, 1968 (copy attached), which enclosed the summary paper, "Strategic Missile Talks Proposal." He said that, in view of this, and



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WASHINGTON

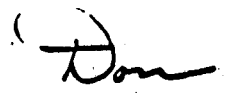
July 29, 1968

871 7/30/68

Dear Glenn:

Thank you for your kind invitation to attend the Twelfth General Conference of the International Atomic Energy Agency. Naturally, I am anxious to help build its strength and stature, but it is not clear from the provisional agenda what role I might fruitfully play. I would appreciate your comments on this score.

Sincerely yours,



Donald F. Hornig  
Special Assistant to the President  
for Science and Technology

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

CROSS REFERENCE SHEET DOCUMENT # 910331

TITLE OF DOCUMENT ACDA-2964 Memo. To The  
EXECUTIVE Comm. July 31, 1968  
2 PAGES

This document requires further classification review and has been removed from this folder.

Dick Koogle  
Name

September 3, 1986  
Date

CROSS REFERENCE SHEET DOCUMENT # 910332

TITLE OF DOCUMENT STRATEGIC MISSILE TALKS  
PROPOSAL JULY 31, 1968  
4 PAGES

This document requires further classification review and has been removed from this folder.

Dick Koogle  
Name

September 3, 1986  
Date

assuming that the Principals have read the paper, he would not take the time to describe it here. He said that it deals solely with a freeze on missiles and not on the production problem. Fisher also referred to the CIA documents analyzing the national detection capabilities. He said we don't yet have individual agency positions on this matter, but we do have a DOD analysis on the military effectiveness of the strategic missile proposal.

Rusk then called for the DOD report. Clifford said that this has been a priority item within DOD and Selin would present the briefing. He stated that this material has not yet been evaluated by the Joint Chiefs of Staff. Selin then made an analysis comparing the U.S. and USSR strategic forces and their effectiveness in first strikes and retaliation from first strikes with and without an agreement on limitation of strategic missiles. He gave us a paper that summarized his remarks. Secretary Clifford then called on General Wheeler to give us his views. Wheeler said that such an arrangement to limit strategic missiles would lead to political problems; one of these would be that it would create a strain within the alliance, another was the possibility that the Soviets would clandestinely increase their land-based mobile system, which would be possible because we don't have means of verification. Another problem would arise if we should attempt to limit the radars because we can't verify this. He said he thought the limitations on the ABM might be the core of the problem, that this could make us vulnerable to attacks from Nth countries.

Rusk raised the question whether we couldn't establish a Joint U.S.-USSR Commission on Strategic Missiles to serve as a forum to discuss the problems on a day-to-day basis and to monitor the progress in missile limitation. Such a Commission would look into any allegations of violations. This might be better than a formal treaty such as we have for the test ban. In this connection, he asked Foster to think of the form as well as the content of a strategic missiles limitation. Wheeler said he could visualize such a Joint Commission within a treaty, but that a Joint Commission alone would not receive the approval of Congress because they would want to have the terms spelled out. Both Rusk and Foster responded by saying they thought the Joint Commission could be put in a form so that Congress would approve; perhaps a joint resolution of Congress could be used for this purpose.

Rusk asked me whether I had any comment. In referring to the briefing by Selin, I said I thought the Soviets surely would go to the building of MIRVs. I asked why this was considered as an uncertainty concerning Soviet intentions. Rusk said that they might want to seek an agreement to prohibit MIRVs, but that if MIRVs were not prohibited, it would seem like the Soviets would add them to their arsenal. I said we should make an analysis of the consequences of both sides eliminating MIRVs and bombers.

We then turned to the third agenda item, even though Clifford had left the meeting to take a phone call. Nitze introduced this item, which had to do with the U.S. MIRV test program. He gave us a paper covering this item. Rusk raised the question as to why MIRVs are better than separate re-entry vehicles, and was told by several people present that, for a given launch capability and cost, more coverage could be accomplished with MIRVs than with separate re-entry vehicles. Rusk asked when the first MIRV test is scheduled to take place and Nitze indicated it would be on August 15th or 16th. When Secretary Clifford re-entered the room, Foster asked him whether he thought it was wise for him (Clifford) to hold a press conference announcing the MIRV test program. Foster asked whether it wouldn't be better to have a DOD press officer, such as Phil Goulding,

announce it. Rusk suggested that another alternative would be just to issue a written statement. He said there was some belief, for example in the recent Times article, that starting the testing of MIRVs forecloses the possibility of ever prohibiting them.

I said it should be remembered that the AEC has an accelerated, or crash program, for the construction of the nuclear warheads for the MIRVs, for POSEIDON and for MINUTEMAN III, and that authorization and commitment has already been undertaken for hundreds of millions of dollars worth of construction for this purpose, which is already underway. Rusk summarized the discussion by asking whether anyone was suggesting a postponement of the MIRV tests, and it was apparent that no one was suggesting such a postponement. Rusk indicated that McCarthy might make an issue in the election of suggesting a postponement. On the other hand, if the MIRV tests were postponed, Nixon would make an issue of it. Rusk suggested that DOD try to issue the most unexciting press announcement possible, and as soon as possible. He asked whether the press is always present at the MIRV test launchings, and Nitze said, "Yes, this has been the best policy." Rusk closed the meeting by indicating that the Principals would meet again a week from today, at the same time.

I met with Secretary Rusk at 12 noon, at his request, following the Meeting of the Principals. He asked whether I was familiar with how the handling of the visas for the Israeli and the South African at the Novosibirsk Plasma Physics Conference had come out, and I said I was. He indicated he thought the strongest possible representations should be made to the Soviets in view of their behavior. I told him that the Novosibirsk Conference is already over and that it hadn't proved feasible to remonstrate with the Soviets there, but that the intention is to take this up with vigor at the time of the meeting of the IAEA in Vienna next month. I indicated to Rusk that I have the impression the U.S. is depending very much on the MIRVs for its strategic offensive and deterrent capability and that it would be difficult to get agreement for any treaty which included as a provision the prohibition of MIRVs.

I had lunch with Arnie Fritsch and Julie Rubin at the Pot O' Gold restaurant at 12:30 p.m.

I received a call from Matt Coffey (White House) at 2:45 p.m. He said that the President has approved John Bugher, Lom Squires and Herbert Friedman for the GAC. He asked me to contact each of them to determine whether they would serve, and to let him know so that the White House could inform them officially.

I called the three nominees for the GAC, John C. Bugher, Herbert Friedman, Lombard Squires, at approximately 3 p.m. I told them we would like to have them serve on the GAC, and asked whether they would be willing to do so. Bugher said he is undergoing medical tests and there may be a problem which wouldn't allow him to serve; however, it was left that he would accept, but will let us know later if, for medical reasons, he couldn't serve. Friedman said he would be honored by the appointment, but he said he is already heavily over-committed and wouldn't be able to devote much time to this additional responsibility. I explained that it meant only about four meetings a year, most of which are held here in Washington. He agreed to try it. Squires said he would be pleased to serve. I asked them all to keep this confidential, and said that they will receive official notification from the White House before very long.

At 3:15 p.m. I called Coffey back and told him that each of the three nominees indicated willingness to serve on the GAC. Coffey said he will send a proposed press release to the Texas ranch tomorrow, and it could be released any time after that. Also, each of the appointees will receive notification from the White House.

I received a telephone call from Peter Strong, President, Southern Vermont Conservation Society, at 3:25 p.m. (I have known him for some time in his capacity as President of the American Scandinavian Foundation.) He asked if I have received his letter (copy attached) of July 31st and if we are going to be able to help them with the conference described therein. In answer to my question as to where they got the names of the people, he said he received them from a scientists' institute for public information in New York. I told him I thought he had been "sold a bill of goods" and wondered why he hadn't checked with anyone else - the public utilities, for instance. I told him that the people in our organization were amazed that an organization as highly thought of as theirs would step into a thing like this. He said his Society is very concerned about two nuclear plants proposed to be built on two precious bodies of water in Southern Vermont, that they don't accept the claims which are made all the time that nuclear power is clean, economic and safe.

I said I think this is a subject very worthy of discussion but there should be some balance to it; they should re-scope it, have it a little later thereby giving people time to prepare for it. He said he thought this one would be balanced if we would send some good people. I said I didn't think so because they have selected people with only one point of view and that I didn't think they were starting with enough of an open view to make feasible sending people with another point of view. He said they have chosen scientists who have a pretty high reputation. They have called on the government to send them experts to testify; they wonder if we are afraid of Barry Commoner or LaMont Cole. I said I didn't want to discuss personalities in detail. He said the public cannot go on accepting the claims of industry which are very glossy and to some degree unsubstantiated.

He mentioned the Oyster Creek plant as being in trouble. He also mentioned the plant in England. I said the trouble with the plant in England has been done into the ground; AEC isn't licensing unsafe plants as that would be the worst possible thing we could do; it would kill nuclear power before it ever got off the ground. I admitted that there have been problems with the Oyster Creek plant but said they will never get a license to operate until the problems are solved; we are working on the basis that there must never be an accident.

I said I think if he would come in and get some background on this, his views would change but if they did not, at least, he would have some basis for them. He said the situation in Long Island Sound is extraordinary - with four large plants in one area. The people who live around the Sound are sitting on a very volatile situation especially in the event of a major war. I asked him what kind of a war and he replied that he meant a bombing war. I said if he had in mind a nuclear war the effect of the nuclear plants would be pretty small compared to the nuclear effects of the war itself.

I asked him if he had forgotten the benefits of nuclear power. He said he knew he was arguing with an expert but wasn't it possible that these plants shouldn't be next to bodies of water as precious as Long Island Sound, the Connecticut

# CONSERVATION SOCIETY OF SOUTHERN VERMONT

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July 31, 1968

Dr. Glenn Seaborg  
Chairman  
Atomic Energy Commission  
Washington, D.C.

Dear Dr. Seaborg:

I come to you today with another hat on, that of President of the Conservation Society of Southern Vermont. All conservationists have been alarmed by the pace of nuclear power development which many claim exceeds the rate of ~~most~~ research to provide adequate safety controls. The introduction of two large plants to our area of Southern Vermont, one at Vernon on the Connecticut River and the other at Charlotte on Lake Champlain, has forced my young Society to face the problem in all its complexity as objectively as possible in order to evaluate the consequences.

The enclosed tentative agenda of a conference on Nuclear Power and Environment to be held under our auspices on September 11th and 12th at Stratton Mountain, Vermont, is our response. Fortunately, because of the intense interest being generated in this field, we have had no trouble securing the good services of leading scientists. I enclose a copy of my letter to Harold Price which asks him to handle the Federal aspects of session III and would greatly appreciate your appointment of an expert to discuss the topic of Fission or Fusion? listed as section C, session I. I understand that fusion is not too distant a possibility and may circumvent many of the problems we face with fission.

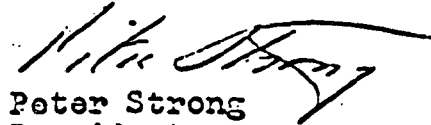
The results of the conference will be published and therefore may have significance which greatly exceeds the geographic limitations of our Society. Your cooperation would be greatly appreciated in urging Mr. Price to attend and selecting an expert in the field of fusion. I can be reached by phone at my office at the American-Scandinavian Foundation during the working day and it would be helpful if you called at your earliest convenience since we cannot print our program until it has been completed.

Dr. Glenn Seaborg

July 31, 1968

The Foundation is enjoying a breathing spell during the summer months which is most welcome to me and the staff. With all good wishes and awaiting your kind response, I am,

Very sincerely yours,



Peter Strong  
President

enc.



TENTATIVE AGENDA

Conference on Nuclear Power and Environment: An Inquiry  
Stratton Mountain, Vermont - September 11 & 12, 1968

Welcome and Introduction - Peter Strong, President  
Conservation Society of Southern Vermont

Session I - September 11th

9:30 a.m. : Nuclear Power Plants

- A. Types, operation and advantages - 50 minutes  
Representative of Vermont Yankee Power Company
- B. Disadvantages, problems and questions - 50 minutes  
George Weil, Atomic Power Consultant, Washington, D.C.
- C. Fission or fusion? - 20 minutes  
Representative of A.E.C.

Discussant: Dean E. Abrahamson, M.D., Ph.D.,  
Department of Anatomy, University of Minnesota

Question Period - 30 minutes

12:30 - 1:30 Luncheon Address - The Scientist and the Citizen -  
Barry Commoner, Chairman, Department of Botany and  
Director of the Center for the Biology of Natural  
Systems, Washington University, St. Louis, Mo.

Session II

2:00 p.m. : Environmental Effects

- A. Water depletion - 30 minutes  
Kenneth Holm, Under Secretary, Department of  
Interior, Washington, D.C.
- B. Thermal Load - 30 minutes  
Alfred W. Eipper, Department of Biology, Cornell  
University
- C. Radiation Pollution - 30 minutes  
Robert Beardsley, Ph.D., Director, Plant Morpho-  
genesis, Department of Biology, Manhattan College, N.Y.

Discussant: James McCann, Ph.D., Department of Biology,  
University of Massachusetts, Amherst, Massachusetts

Question period - 30 minutes

5:30 - 8:00 p.m. Cocktails and dinner

SESSION III - September 12th

9:30 a.m. : Regulations, Controls and Safeguards

A. Regulations - 30 minutes

1. Federal - Harold Price, Director of Regulations, A.Z.C.
2. State - Governor Hoff or Representative
3. Local - same as above or Representative from Brattleboro, John Murgess

B. Controls and Safeguards - 30 minutes  
Representative of General Electric Company

Discussant: Harold Green, Professor of Law,  
George Washington University, Washington, D.C.

Question Period - 30 minutes

12:30 - 1:30 p.m. Luncheon Address - The Quality of Life -  
Professor LaMont C. Cole, Chairman, Section of  
Ecology and Systematics, Department of Biology,  
Cornell University

SESSION IV

2:00 p.m. : Summation and Discussion - Professor Barry Commoner

River and Lake Champlain, since it will affect the ecology of these areas. I said the fossil fuel will also do that. He mentioned that in Sweden they put these things underground. I said this has been gone into pretty carefully and it is not feasible to put all the plants underground. He said again that their big objection is placing something highly poisonous on a precious body of water in the center of a populated area. He said the people in Vermont are by and large uneducated. He said we are putting this thing down in their midst telling them it is going to reduce taxes, etc., but not telling them that it may very well spoil swimming and fishing in the Connecticut River. I said I don't think that is true.

He said it is quite obvious that industry is in the business of promoting nuclear power. I replied that industry is in the position of being required to furnish electricity - nuclear, fossil or hydro, and there are problems with all of them. The problems with fossil fuel are probably greater than with nuclear; it pollutes the atmosphere. A solution will have to be found which is consistent with the future requirements of mankind, which is depending more and more on electricity. I said he is on the wrong track if he thinks they were going to slow down the consumption of electricity. In the last analysis we have to find a solution consistent with more electricity. He said it may very well end up that plants will be further away from populated areas and that electricity will be more expensive. I said that is the sort of argument he can make.

I also said that I count myself as a conservationist but would like to see a conference that would cover this subject on a broader, more unbiased basis. He said this conference has been all set up although the invitations have not gone out. I asked how it cropped up so suddenly and he said from their point of view it is long past due. He said he assumed the AEC and utilities would have experts on call. He thought the biggest problem would be to get scientists. He likes these scientists and their approach. I told him it is hard for our people to do this on such short notice; Harold Price already has another commitment. Also, he is not a biologist. To sum it all up I said what I am suggesting is that he hold the conference at a later date, giving people time to get ready for it and to get people with both points of view. He thanked me for spending this time on the phone with him and said he would see what he could do. He said if I have any ideas about people or agenda, he would appreciate receiving them. I told him I will be leaving on my vacation but will try to have someone work on it. I emphasized that we will be glad to help.

I watched the Republican Convention from Miami on television; this included placing Nixon in nomination for President by Governor Spiro Agnew of Maryland. Nixon was nominated with 692 votes on the first ballot.

Thursday, August 8, 1968 - D.C.

At 10 a.m. I met with Arnie Fritsch, C. E. McColley, Julie Rubin and representatives of Arthur D. Little, Inc.- Bruce S. Old (Senior Vice President and Project Director) and Donald W. Smith (staff)- to discuss their forthcoming report to the AEC and the Department of Justice, "Competition in the Nuclear Power Supply Industry," subsequently issued in December 1968.

At 12 noon I called Mrs. Joann Huddleston (Senior Assistant Editor, Annual Reviews, Inc., Palo Alto, California) and asked whether she had received my July 26th and 29th additions to my article. She said yes, and that they were fitted into the manuscript and the galley has now gone to press. The article goes into

page proof next. With all the changes that were made, I said I would like, if possible, to be able to see the page proofs. She said she should have them about September 1st, and would send them to me in early September. I asked if we do find some additional page references whether we should save them for the page proofs, and she agreed. (The article, "Elements Beyond 100, Present Status and Future Prospects," was subsequently published in Volume 18, 1968, of Annual Review of Nuclear Science.)

About 12:15 p.m. I called Glenn Leggett (President, Grinnell College, Grinnell, Iowa) regarding his letter of July 24, 1968, inviting me to present the annual Rosenfield Lectures at Grinnell College on January 22 and 23, 1969. I asked whether there is any flexibility with the dates, inasmuch as this would be the week of the Presidential inauguration. Also, I explained that my schedule does not permit me to give a series of lectures; however, I wondered whether the lecture schedule could be compressed so that one lecture might be delivered one afternoon, and a second the following morning. He asked what might be an alternate time and I suggested as a possibility the following week, January 29th and 30th. He said he would check these points and be back in touch with me.

I had lunch with Stan Schneider and James Threlkeld at the Pot O' Gold Restaurant, followed by a walk around Lafayette Square.

I received a telephone call from Larry Hafstad, Chairman, GAC. He said he is being pressed to get supporting information and a suggested citation for the Fermi Award and he will get on with having them prepared unless he is told otherwise. I told him to go ahead. I also said that I have notified the White House of the recommendations and when Tape returns from Russia we will try to get a feeling for what they will buy. He said his tour of duty as GAC Chairman is running out and wondered if he should continue on an acting basis. I said I didn't know what the actual procedure is or whether I have the power to make such a decision. I told him the White House is probably appointing new members to take the place of those whose terms are expiring, except maybe Bugher. He said he assumed he would be replaced but will carry on until it is made official. I told him how much we appreciate the excellent job he has done for us and that he has been eminently successful.

At 2:30 p.m. I talked to Fred Albaugh (Director, PNL) about diversification at Richland, a possible position at Battelle Northwest Laboratory for Fritsch, and Battelle's and his difficulties with Milt Shaw. Albaugh said Shaw has a number of misfits running his program for the AEC at Hanford.

At 3:30 p.m. I called Fred Seitz, President, National Academy of Sciences. I said I had great hesitation about calling him and this may seem presumptuous; however, I have heard, and read, that my name is under consideration as a successor to Seitz as President of the National Academy of Sciences. I said that, if this should be the case, I feel I should indicate to him that I would not be in a position to accept such an appointment. I said I want to get back to academic work and to the University of California in due course, and I would not wish to take any other appointment under the false pretenses that I would serve any appreciable period of time. Seitz said he was sorry to hear this because my name is high up on the list for consideration; in fact, he will be meeting with the nominating committee tomorrow.

At 4:45 p.m. I met with Walter J. Stoessel, new U.S. Ambassador to Poland, Mel Abrahams of DIA, and Fritsch.

I attended a social hour for the ACRS in our Dining Room at the D.C. office at approximately 6 p.m.

I called Mom at the St. Francis Hospital. She seems to be getting along pretty well, but she still has some pain in her back.

Nixon surprised everyone today by choosing Governor Spiro Agnew of Maryland as his Vice Presidential running mate. Agnew was nominated by the Republican Convention this evening.

#### Friday, August 9, 1968 - Germantown

At 9:45 a.m. I called Ambassador Thorsteinsson of Iceland regarding his August 6th telephonic invitation to visit Iceland around October 11th. I said I have looked at my schedule, but find that week is impossible. I said that planning for a trip, especially of this magnitude, has to be done rather far in advance. He said he would call me again, and would give me more notice.

At 12 noon present and past members of the Chairman's Office attended a farewell luncheon at the Washingtonian for Pat Goodwin. Attending were, in addition to myself, Arnie Fritsch, Julie Rubin, Vic Schmidt, Chris Henderson, Jim Hill, Stan Schneider, James Threlkeld, Cecil King, Jim Haddow, Doris Knief, Marie Janinek, Helen Gearin, Sybil Kari, Cathy Maus, Helen Brady, Jeanette Hamilton, Blanche Mendoza, Jeanne Brown. Arnie Fritsch and I made short remarks and Pat responded. We gave her an AM-FM clock radio and a number of small humorous gifts. This is her last day in the office before leaving for a year at Stanford University; she will be on leave with full AEC salary and payment of tuition.

I worked on my preface to the AEC Historical Guide for the Lyndon B. Johnson Library (subsequently issued January 1969).

I wrote to my Mother to try to cheer her up and to tell her about our activities, our vacation plans, my travel plans, etc. (copy attached).

#### Saturday, August 10, 1968 - Virginia to South Carolina - vacation

Helen, Dave, Steve, Eric, Dianne, Suki and I drove south in our Chrysler station wagon on the start of our vacation. We drove on Interstate 95, south, through Virginia to the border of North Carolina and continued south on Interstate 95 and U.S. 301 to South Carolina. We stopped for a picnic lunch along the side of the highway in North Carolina.

We continued south on Interstate 95 and U.S. 301 to Dillon, South Carolina, and then turned right and followed Squires' Safe Speedway as far as Sumter, South Carolina. Here we had a bite to eat at Hardee's Hamburgers. Since Helen wasn't feeling too well, we spent the night at Sumter at the Holiday Inn (Rooms 329 and 330). Dave and Dianne went swimming in the motel pool.

#### Sunday, August 11, 1968 - South Carolina to Florida - vacation

Dave, Steve, Eric, Dianne, and I had breakfast in the Holiday Inn Coffee Shop. We brought some toast and coffee to Helen in our motel room. Helen then felt well enough to travel so we continued on down the Squires' Safe Speedway. We had lunch in the Crescent Restaurant in Allendale, South Carolina, after driving around in Barnwell on our way. Everything, including the service stations, were

August 9, 1968

Dear Mom:

It was good to talk to you on the telephone last night. I thought I would write a letter before we start out on our vacation tomorrow morning.

As Dr. Zimmerman probably told you, I talked to him on the phone day before yesterday and he said he feels things are going very well with you. He is particularly pleased by how well the radiation treatments are agreeing with you. He said he thinks the pain in the back is nothing serious and that you shouldn't worry about it.

As I told you on the phone, Lynne and Bill aren't going to be able to go with us on our vacation. Bill has to have some dental work done, and then they're going to visit his mother in Iowa. They will come to Washington to visit us in September. This schedule suits their plans much better and, of course, we will be glad to see them in September.

As I told you, we are going to Florida on our vacation. We plan to go to the southern part of Florida, to the Everglades National Park, because the boys want particularly to see the animals they have heard so much about. We will be gone two weeks and will spend most of our time in Florida, although we may visit some of the historic sites in South Carolina, Georgia, etc., on the way there or on the way back.

Steve and Eric are learning to play golf quite well, which makes me very happy because it means I have somebody to play with. We have had a chance to play a number of rounds of golf this summer, although, of course, not as many as I would have liked.

Lynne and Bill have received a large number of wedding presents from friends all over the country and, therefore, they should have a good start. The presents have come to our house and Helen has mailed them to their apartment in Cambridge, Massachusetts. She hasn't mailed them all, however, because some are quite fragile and she is going to keep them until Lynne and Bill come to visit us in September.

And, by the way, I gave you the wrong address, in an earlier letter, for Lynne and Bill. Their address is:

Mr. & Mrs. William Bates Cobb  
Apartment 5B  
2 University Road  
Cambridge, Mass. 02138

I know that you don't feel up to writing to them, but I thought you should have their address anyway.

Toward the end of next month, as I usually do in September, I will be going to Vienna, Austria, to attend the annual meeting of the International Atomic Energy Agency. I have done this every year since 1961, and I find it very interesting. As usual, I shall probably visit some other countries on the way to and from Vienna. Helen might go with me again, like she did last year. With the kids getting bigger, and with three of them off to college, it's much easier for her to do this than it used to be.

I am enclosing a picture of our house in Lafayette that was taken during a visit I made there in March. The people in our house, who are named Carney, are taking better care of the house than any other people we have had living there. They are also taking good care of the yard and it looks better than it ever has, even when we were living there. They are also making many improvements inside the house, like painting the kitchen and bedrooms, putting up drapes, and they are doing all of this at their own expense.

The weather in Washington has been very hot during the last couple of weeks, but we haven't been too uncomfortable with the air conditioning in our house. Also, we have air conditioning in our Chrysler station wagon, so we shouldn't be too uncomfortable on our trip to Florida.

We're very glad that Ethel is dropping in to see you and that you have other visitors to keep you from becoming too boxed. We're glad that Jeanette had the opportunity to take a vacation, and expect that she will enjoy it very much. I have told the doctors and Jeanette that we can be reached by phone through the Atomic Energy Commission while we are on vacation. I will keep them informed at the Atomic Energy Commission at all times as to where we are.

I told Helen how much you enjoyed receiving her letter, and this pleased her very much. We will write you while we are on vacation so that you will be able to keep track to some extent of where we are.

We all hope and expect that you will soon be feeling better.

With love,

Franklin D. Roosevelt



closed in Barnwell. We drove on to St. Augustine, Florida, where we checked into the Pelican Motel and had dinner at the Holiday Isle Restaurant. We went back to the Pelican Motel and retired at varying times.

Monday, August 12, 1968 - Florida - vacation

We all had breakfast at the Pancake House of the Palms Motor Court. Then while Helen, Eric, and Dianne went back to the Pelican Motel and packed our car, Dave, Steve, and I walked down to the Visitors' Center and saw the movie on St. Augustine. We all met at the Old Jail, which we visited. We took a walking tour of old reconstructed St. Augustine on St. George Street, Hypolito Street, and Charlotte Street to the Fort Castillo de San Marcos National Monument which we toured. We then went back to our motel for a moment (to the unjustified consternation of the proprietor) and then drove back through the old town on Cordoba Street, Carrera Street, Seville Street, passing historic King Street, churches, Avenida Menendiz, on to the oldest house (Historical Society) on St. Francis Street.

We then drove back to U.S. Route No. 1 and drove to the northern edge of Daytona Beach, where we had lunch at a McDonald's Hamburger stand. We then drove on U.S. Route 1 and Interstate 95 to Fort Lauderdale and then on to Davie, where we visited Nova University, Nova Junior College, Nova High School and Nova Elementary School. We then drove to Miami and checked into the Frolics Motel at 36th and Biscayne Boulevard (Rooms 5 and 6).

We had dinner at the Biscayne Cafeteria at Biscayne Boulevard and 19th. Here we met Congressman and Mrs. Claude Pepper and Mrs. Pepper's sister, Mrs. Snyder. When they learned of our vacation plans and interest in snakes, Congressman Pepper arranged for us to visit the Miami Serpentarium (12655 South Dixie Highway - Route 1) through the famous proprietor, Bill Haast. He also arranged a cottage for us at Flamingo through the superintendent of the Everglades National Park, Roger Allen, and his assistant, Ratery. (Mrs. Pepper paid for our dinner.) After dinner we drove to Miami Beach and up and down Collins Avenue looking at the famous hotels - the Hilton Plaza (Nixon's headquarters), the Fontainebleau, Eden Roc, etc.

As I learned in a telephone call, in my absence from the office, Arnie Fritsch spoke to Matthew Coffey (White House), who learned of the approval by the President of the appointments (Fisher, Johnson, Lewis, Smyth, Tape, and me) to the IAEA Conference in Vienna. Coffey wondered if I had been notified and Fritsch said no but I would be informed when I called into the office. In a later call Fritsch told Coffey that Ramey's name was proposed, came over from the State Department that way, but did not come through from the President. Fritsch told Coffey that Ramey would be involved in a desalting symposium in Vienna and would be there longer than any of the Commissioners, with the exception of me. Ramey is put out about this since no one talked to him about it. Coffey said he would go back and see what the situation is. When Coffey called back, he said he would accept full responsibility for the error; the President obviously missed Ramey because of the way the memo was written. He said they would send it back to the President.

Tuesday, August 13, 1968 - Florida - vacation

We had breakfast at the little coffee shop at the Frolics Motel - an excellent breakfast. I called the office and found everything is going O.K. I had a pending call from Al Ghiorso.

We then drove south on U.S. Route No. 1. We visited the Seaquarium. Here we saw the porpoise show, the underwater feeding; Hugo, the killer whale; Flipper (the porpoise who is a television and movie star), and a sea lion and porpoise show in which the latter played football, basketball, etc.

We then drove to the Miami Serpentarium. Here we saw two Galapagos turtles, South American and American alligators, African and American crocodiles, iguana and komodo dragons, and snakes, such as racers, cottonmouths, water snakes, rat snakes, rattlesnakes and tuataras.

We saw Bill Haast milk venom from and force-feed coral snakes, spitting cobras, common cobras, rattlers, pit vipers, and a beaded lizard. We talked with Bill Haast and he gave Dave a scarlet king snake, young and small. We bought a copy of Haast's biography, Cobras in His Garden, by Harry Kursh, which he autographed for Dave.

We had lunch at nearby Sherrard's Dixie Bell Inn, and then drove on U.S. Route No. 1 to Homestead, and then into the Everglades National park. We stopped at the Pa-hay-okee Overlook which is in the middle of the huge river that constitutes most of the Everglades. We drove to the Flamingo Lodge and checked into Cottage F. On the basis of a message waiting for me I called AEC in Washington and learned that Dr. Arthur Zimmerman wanted me to call. I called Dr. Zimmerman at the St. Francis Hospital and he said that new x-rays show involvement of three vertebrae so the presumption is that metastasis has occurred. Therefore, Dr. Zimmerman is irradiating these vertebrae instead of the left kidney area. The prognosis is not good.



Pa-hay-okee Overlook, Everglades National Park, August 13, 1968

Steve, Glenn, Dave, Eric, Dianne, and Suki

I returned a call from Ghiorso who told me he thinks Flerov is wrong on element 104. He has irradiated Es-253 with B-11 and finds no evidence of Flerov's 0.3 second S.F. activity. This appears to rule out 104-261 and 104-260, but not yet as definitely does it rule out 104-259.

We went to dinner at the Lodge restaurant, which is located at the Visitors' Center. Following dinner we went to the auditorium in the Visitors' Center and heard a talk by a naturalist on the balance of life in nature, with illustrations, including slides that included some description of life in the Everglades.

Attached is a copy of my biweekly report to the President, dated August 13, 1968.

Wednesday, August 14, 1968 - Florida - vacation

Today is Steve's birthday. We had breakfast in the Lodge Coffee Shop and then visited the exhibits in the Visitors' Center. Dave, Steve, and I then explored the marina. Helen bought some groceries in the store at the marina and we had a sandwich lunch in our cottage.

We took a boat ride on the "Pelican," leaving the area near the Visitors' Center at about 12:45 p.m. and returning about 2:45 p.m. We went on the Buttonwood Canal (I took movies, which included an osprey bird), crossed Coot Bay (about three to four feet deep), and continued on Tarpon Creek to White Water Bay. White Water Bay is black from tannic acid from mangrove trees but becomes frothy white on a windy day, whence it gets its name. It covers 100 square miles and is full of mangrove-tree islands.

When we returned from the boat ride, we went on the Wilderness Tram Tour. We proceeded down the road which brought us into Flamingo Lodge, viewing on the way the Coastal Prairie and the large area destroyed, regrown, and again destroyed by such hurricanes as that of 1935, "Donna" of 1960 and "Betsy" of 1965. We stopped and walked into the wild area a few feet to see a Strangler Fig Tree. We saw an alligator in a pond near the road. We then rode about 2.5 miles along a rough road, with overgrown branches impeding the way and replete with mosquitoes, to Snake Bight (so named because of its shape) and nearby Florida Bay (a nearly dry, flat portion of it). We rode back along the same route as we came, stopping at Coot Bay Pond on the way.

We then went swimming (except Steve) in the Lodge pool. Helen bought some more groceries and cooked dinner for us in our cottage. Helen took the kids, with the exception of Dianne, animal hunting, using the car headlights.

Thursday, August 15, 1968 - Florida - vacation

Dael Wolfle called me at 7 a.m. to tell me that I have been selected to receive the 1968 Arches of Science Award (this consists of an award of \$25,000).

We had breakfast in our cottage. I called the AEC office and learned that the AEC portion of the BOB government-wide \$6 billion budget cut for Fiscal Year 1969 is \$100,000,000, which is the soft case.

We drove along the entrance road to Flamingo, stopping first at the West Lake area. Here we saw the exhibit (pictures of vegetation of the area) and walked the Mangrove Trail (an elevated boardwalk into a tropical mangrove swamp). We

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

UNCL. BY DOE  
NOV 86

August 13, 1968

OFFICE OF THE CHAIRMAN

The President  
The White House

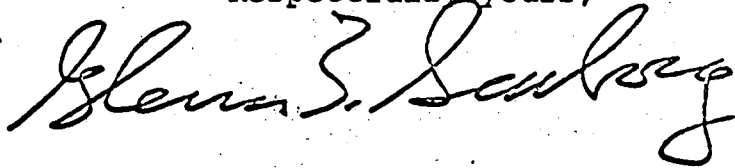
Dear Mr. President:

I have the pleasure of submitting the regular biweekly report on significant developments in the atomic energy program:

1. The N.S. Savannah is scheduled to begin its first refueling at the Galveston, Texas, refueling facility about August 24. Four fuel elements will be replaced and the remaining 28 reshuffled. It is expected that an additional two years of operation can be obtained before the complete core is replaced. The nuclear merchant ship has traveled about 330,000 miles on its first core, installed in 1961. The vessel has entered 32 domestic ports and 44 foreign ports in 25 countries. It is anticipated that commercial operation will be resumed by late October.
2. The Army's barge-mounted nuclear power plant MH-1A was towed from Fort Belvoir, Virginia to the Panama Canal Zone, where it arrived August 7. The barge Sturgis is being moored at Gatun Lake, adjacent to the Gatun Hydroelectric Station where the reactor will provide a temporary solution to the Canal's electric power shortage. The mobile nuclear plant provides 10,000 kilowatts of electric power. Actual transmission should begin in mid-September.
3. The Memorandum on Cooperation in the Peaceful Uses of Atomic Energy between AEC and the USSR State Committee on the Utilization of Atomic Energy was signed July 29 in Moscow by Commissioner Tape and Dr. Igor Morokhov, First Deputy Chairman of the USSR State Committee. The memorandum is part of the U.S.-USSR Exchange Agreement for 1968-69, which was signed in Moscow July 15. Commissioner Tape was in the Soviet Union to attend, with others from the U.S., the Conference on Plasma Physics and Controlled Nuclear Fusion Research at Novosibirsk, and to visit Soviet scientific facilities.

4. The Commission has approved the participation of West German nationals in HENRE II, the second phase of the High Energy Neutron Reactions Experiment conducted by our Biology and Medicine Division at the Nevada Test Site. German military and technical personnel are interested in Army experiment involving the radiological armored pod for the Main Battle Tank, an armored vehicle for which the U.S. and West Germany have a joint development program.
  
5. A joint Danish-U.S. Ecological Survey of the B-52 crash site near Thule Air Base is now getting under way. This survey is to confirm previous scientific findings that no radiation hazards exist. As part of the survey, the oceanographic research submersible Star II will be used to survey the area below the crash site which is accessible only during the summer months.
  
6. On August 15 the Idaho Regulatory Agreement will be signed in Boise by Commissioner Johnson and Governor Samuelson. Under this agreement Idaho will assume part of AEC's regulatory authority over the use of atomic energy materials in the state. AEC already has effective agreements with 18 other states.

Respectfully yours,



Glenn T. Seaborg

cc: Bromley Smith

saw West Lake Pond at the end of the boardwalk. We had good views of hurricane damaged tropical vegetation. We drove on to the Nine Mile Pond and then Paurotis Pond and Whiskey Creek for a view of rare palms and the site of moonshine activities at which, according to the historical record, three prohibition agents shot three moonshiners. We saw the alligator in the same pond as yesterday. I took a color picture of the alligator, with Dave and Dianne in the picture also.

We had lunch at the Lodge Coffee Shop. Then Dave and Steve went fishing. Steve caught a 15-inch redfish.



Steve with Catch-of-the-Day

Eric and Dianne went bicycling. All of us, with the exception of Steve, went swimming in the Lodge pool.

We had dinner in our cottage, which included Steve's fish cooked by Helen. Helen took the kids out at dusk to hunt for snakes, etc., using the headlights of our car. They caught four snakes, including a Southern Ribbon snake and saw a cougar. I called Mother and talked to her briefly trying to tell her about my selection as the recipient of the Arches of Science Award, but found it difficult to make her hear me.

Friday, August 16, 1968 - Florida - vacation

Dave and Steve got up before dawn, rented a motorboat, and went fishing on Buttonwood Canal, Coot Bay, and White Water Bay. They didn't catch any fish. On the way back the rope for the starter broke so they had to row part of the way back until a fellow came along in another motorboat and towed them back to the marina pier.

The rest of us had breakfast in our cottage and stayed there until we went to the marina to meet Dave and Steve upon their return.

We had lunch in our cottage.

I called Dr. Zimmerman and he described for me Mom's radiation treatment of her vertebrae. The three vertebrae involved are the dorsal 12, lumbar 2, and lumbar 4 (an area 20 by 6 centimeters) and the radiation doesn't reach any vital organs. Dr. Zimmerman gives her 400 R per treatment. She had received about 3,000 R on the left kidney area when he shifted to the vertebrae. Dr. Zimmerman is leaving for a week's vacation at Lake Tahoe, leaving Dr. Kurt Kent in charge of Mom's treatments. I asked Dr. Zimmerman if use of P-32 is indicated and he said no; the bone involvement is so localized that internal treatment with Co-60 is better.

Our Chrysler developed a peculiar whining sound under the hood this morning. The mechanic at Flamingo diagnosed it as water pump trouble. In view of this we checked out of Flamingo Lodge and drove to Homestead. Bill Miller of Dick Conley Chevrolet, Inc., diagnosed the trouble as a broken support for the power steering mechanism and recommended we have it fixed at Jack Wall Chrysler. The shop was closed so we decided to come back in the morning. We checked into the Caribe Motel (841 N. Krome), Rooms 9 and 10, and Helen prepared our dinner in our room which had kitchen facilities. Helen washed clothes at a nearby laundromat. Dave, Eric, Dianne, and I went swimming in the motel pool before dinner and Steve, Eric, and Dianne went swimming after dinner.

A copy of a memo of August 16, 1968, from William Foster, Director ACDA, enclosing a draft speech to the ENDC suggesting a cutoff in the production of and the transfer to peaceful uses of fissionable material, and requesting my approval is enclosed.

Saturday, August 17, 1968 - Florida - vacation

I got up early and drove to Jack Wall Chrysler-Plymouth, Inc. (29200 South Federal Highway, Homestead, Florida, phone 248-0510). While waiting for the mechanic to arrive I had breakfast at a nearby Royal Castle. The mechanic found no trouble in the car. The whining noise yesterday probably was due to the power steering belt which was fixed by the lubrication applied at Flamingo Lodge. The mechanic said our alternator bearings, front and back, should be replaced in another 4,000 miles. (Present mileage is approximately 11,000 miles.) He said we should have this and other things fixed before 24,000 miles in order for our warranty to be applicable.

Helen and the kids had breakfast in our motel room. We drove back into the Everglades National Park and visited the Royal Palm Area, including the Visitors' Center. We saw a number of alligators in the pond and hiked the Anhingo Trail (boardwalk) and Gumbo Limbo Trail (asphalt) where we saw many types of tropical plants and trees. We then drove on further into the Everglades Park and had a flat tire (left rear) on the way. Some boys stopped and helped Steve finish changing the tire. We then drove on the Pineland Trail (asphalt) which is a high area of about four to five feet elevation, formerly the Pineland Key when more of Florida was under water. This high elevation has led to a fine growth of pine trees. We then drove on to the boardwalk into Mahogany Hammock. Here we saw the largest mahogany tree on record in the history of the U.S. (20 feet in diameter) - over 100 years old and now devoid of foliage. We then turned back and drove out of the park, through a driving rainstorm, stopping at Park Headquarters (where the rain had stopped) to finish our picnic lunch. We drove to Key Largo and somewhat south and bought an 8.45 x 15 tire at McKenzie Standard Station at Tavernier, Florida, for a total price of \$50.21, including tax.

UNITED STATES ARMS CONTROL AND DISARMAMENT AGENCY  
WASHINGTON

UNCL. BY DOE  
NOV 88

OFFICE OF  
THE DIRECTOR

August 16, 1968

MEMORANDUM FOR: THE SECRETARY OF DEFENSE  
THE CHAIRMAN, ATOMIC ENERGY COMMISSION ✓

Subject: Approval of Draft Speech to ENDC on Cutoff

The attached draft speech is suggested for your review and approval for presentation at the ENDC by the U. S. Delegate in the very near future. I have also provided you with a summary of our rationale for making the speech at this time.



William C. Foster

Attachment:

1. Draft Speech
2. Rationale (Secret Restricted Data)

Document transmitted  
herewith contains  
RESTRICTED DATA

This document will be  
UNCLASSIFIED  
upon removal of classified  
attachment

Reference - Information Meeting 825, 8/27/68

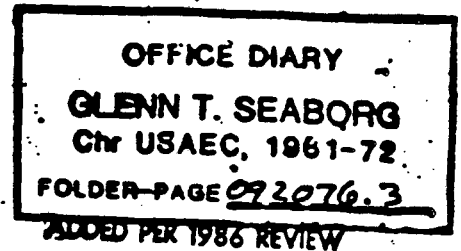


DRAFT SPEECH ON CUTOFF

Introduction

(To be added later)

Body of Speech



The discussions in this committee during and following the NPT negotiations have established the urgent need and desire for effective measures to halt and turn back the nuclear arms race. Today, we wish to reiterate a U.S. proposal which will translate this desire into concrete acts of mutual restraint and accommodation leading to nuclear disarmament. We again propose that we explore the possibilities of an international agreement in which:

1. The nuclear weapons powers agree to halt all production of fissionable materials for weapons purposes.
2. The facilities presently involved in such production would be shifted over to production for peaceful uses under IAEA controls or shut down completely with verification under IAEA auspices.
3. The U.S. and USSR agree jointly to transfer in an agreed upon ratio up to 100,000 kg of weapons grade U-235 (considered to be equivalent to 90% enrichment), from weapons stockpiles to peaceful uses under IAEA controls.

CLASSIFICATION CANCELLED \*  
BY AUTHORITY OF DOE/OC  
REVIEWED BY *[Signature]* DATE 5/18/88  
X-11v. ACDA SMITH TO DOE/OC Gilbert 5/12/88  
*[Signature]* 5/18/88

The U.S. has previously suggested 60,000 kg for our portion and 40,000 kg for the USSR. That ratio is still acceptable to us!

OFFICE CHIEF  
GLENN T. SLABORG  
CIV. DIV. 100-72  
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ADDED PER 1986 REVIEW

4. The U.S. and USSR agree to demonstrate the destruction, in a safe manner and without the revelation of significant design data, of enough nuclear weapons to obtain the U-235 being transferred to peaceful purposes.

5. The plutonium associated with the thousands of nuclear devices to be destroyed would also be transferred, in approximately the same ratio, to peaceful uses under IAEA controls.

This proposal to cease the production of fissionable material for weapons purposes was first set forth in 1956 in a letter which President Eisenhower addressed to Premier Bulganin of the Soviet Union.

Subsequently, we offered to combine with an agreed cutoff of production, the transfer of a large amount of fissionable materials, both uranium-235 and plutonium, from weapons purposes to peaceful applications, if the Soviet Union would also do so. The fissionable material which we proposed to transfer would be derived in agreed ratios and quantities from nuclear weapons in the stockpiles of the U.S. and the

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GLENN T. SEABORG

Chf USAEC, 1961-72

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USSR. We would be prepared to demonstrate the destruction of these weapons and place the materials under IAEA controls in the peaceful uses environment of our two respective countries.

In 1964, our proposal was further enhanced by President Johnson's ordering of a twenty percent reduction in production of enriched uranium at the gaseous diffusion plants and the shutdown of our plutonium reactors. One of our shutdown reactors was offered to the IAEA for inspection. The President suggested that the USSR follow the example we had set.

Further reductions of gaseous diffusion plant output to be made over a four year period were announced by President Johnson in April of 1965. In January 1965 the AEC announced scheduled cutbacks in line with this plan. Again in January 1967 and 1968, the AEC announced the further shutdown of plutonium production reactors. Seven of the fourteen plutonium production reactors operated by the AEC have now been shut down, and the separative capacity of the gaseous diffusion plants has been reduced by over forty percent.

Our desire for a cutoff and for the agreed transfer of fissionable material from weapons purposes to peaceful uses has also been exemplified by the working papers we submitted

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to the ENDC in March and April 1966. In the latter paper, (ENDC/174) we put forward an effective but unintrusive method of providing mutual assurance that obligations under an agreement to shut down plutonium reactors would be fulfilled.

The U.S. suggested, and demonstrated at Richland, Washington, in November, unintrusive ways of verifying that a shutdown reactor was not producing in a clandestine manner.

This sort of limitation and reduction measure would be particularly significant now since we meet our "balance of obligations" by seeking agreement on measures that will lead to a reduction of the world's nuclear weapons stockpiles. The proposal I have been discussing today would be a significant step in this direction, and would at the same time augment the fissionable material available for peaceful purposes including Plowshare, power production, research and propulsion.

The desire and means for accomplishing this important measure of nuclear arms limitation are at hand. In view of the urgent need and desire for such action, we believe the present opportunity for achieving agreement must be seized.

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Rationale for Approval of Draft Speech to ENDC  
on Cutoff (U)

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ACDA suggests that the draft speech accompanying this memorandum be approved for presentation at the ENDC by the U. S. Delegate in the very near future.

The speech only reaffirms previous proposals made by the U. S. over the last few years on the cutoff of production of nuclear materials for weapons purposes, as well as the closely related proposals to demonstrate the destruction of a number of nuclear weapons and transfer the uranium and plutonium involved to peaceful uses. The key points in our existing position which would be restated are:

1. The cutoff would apply to the production of uranium and plutonium to be used for weapons and would not adversely affect peaceful or military propulsion, research, or power programs.

2. A large number of weapons (referred to as "thousands") would be dismantled. Uranium and plutonium in the suggested ratio of 60/40 for U. S. and USSR, would be transferred to peaceful purposes under IAEA safeguarding arrangements. Tritium would be salvaged.

3. Any shutdown facility would be monitored by IAEA inspectors.

CLASSIFICATION CANCELLED \*  
WITH DELETIONS  
BY AUTHORITY OF DOE/OC

*J. Diaz* 5/18/88  
REVIEWED BY \_\_\_\_\_ DATE

\* EPP. ACDA Smith To  
DOE, OC Gilbert dated 5/2/88  
*Carl Wilson 5/20/88*

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 GLENN T. ...  
 CHIEF U.S. AEC 19. 2  
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ADDED PER 1976 REVIEW

4. Any weapons facility shifted to peaceful production would be placed under the same safeguarding arrangements as those called for by the NPT for non-nuclear weapon states.

5. Production of fissionable material for peaceful uses, including peaceful nuclear explosives would be permitted.

It would be desirable for the U. S. to make this presentation in the ENDC at this time because:

1. It restates an existing position on a measure which non-nuclear weapon states would regard as tending to balance the obligations they are asked to undertake in the NPT.

2. If the USSR agreed to this proposal, it would for the first time be accepting IAEA inspection of Soviet nuclear facilities.

3. If U. S. production were stopped now our present stockpiles of both highly enriched U-235 and plutonium would meet or exceed our requirements through 1976 for all presently approved weapons programs. The U. S. has unilaterally virtually ceased all production of U-235 for weapons purposes and has only a small production of plutonium scheduled for weapons uses over the next two years.

4. If Soviet production were stopped now, their stockpiles would be approximately [redacted] of the U. S., whereas continued production at currently planned U. S. and estimated Soviet rates would allow the Soviet to gradually increase its stockpile relative to the U. S.

U. S. intelligence estimates of Soviet stockpiles, production capacity and rates show that without a cutoff, the USSR by 1970 is anticipated to have about [redacted] of U. S. totals. By

SECRET

1972, the uranium-235 figures will be [REDACTED] and the USSR plutonium total will be about [REDACTED] of U. S. Our estimates show USSR uranium stocks in 1976 to be [REDACTED] than U. S. stocks, with plutonium being [REDACTED]

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Therefore a cutoff in 1968 to 1970 would slow down the accumulation of fissionable materials by both countries but would be more advantageous to the U. S. A cutoff in 1972 or later would have only a small effect on the accumulation of that amount of fissionable materials calculated to be necessary for USSR top priority and second priority military requirements. A cutoff in 1976 or after would appear to have no direct military effect, because the availability of fissionable materials for military uses will be more than any predicted requirements can utilize. In view of these disparities and the inspection requirements, the cutoff is believed unlikely to be acceptable to the USSR.

5. When the U. S. first offered in September 1965 to obtain the 60,000 kg of uranium-235 for transfer from demonstrated destruction of nuclear weapons, it was determined that this could be done using obsolete weapons, and would not require removing weapons from our active stockpile. It has recently been determined that this is still the case.

On the basis of the above points, this cutoff measure, if presented now and if it were accepted by the Soviets, would appear to enhance U. S. security interests.

The last formal approval of this position on this subject was given to the Delegation to the ENDC on February 15, 1966 and the stated position has been used on

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several occasions since that date at the ENDC and the  
UNGA.

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On July 9, 1968, General Wheeler, in his Memorandum For The Secretary of Defense, objected to discussing the matter until the ACDA study on the impact of a cutoff on the assured destruction capability of the U. S. was issued. This report (Project IMRACT) was distributed on August 5, 1968 and it concludes that our assured destruction capability would be maintained with the postulated cutoffs.

The draft speech, if approved very soon, will permit the U. S. Delegation at the ENDC to address this subject in a manner which should promote early signatures to and ratification of the Non-Proliferation Treaty.



We then drove on to Key West and checked into El Rancho Motel (830 Truman Avenue, at the corner of Margaret Avenue and U.S. 1). We had rooms 15, 16, and 17. We had dinner at the J & J Steak House (537 Duval). Then we drove by Audubon House (205 Whitehead Street), the Ernest Hemingway Home and Museum (907 Whitehead Street), and the southernmost point in the U.S. (corner Whitehead and South Streets).

Sunday, August 18, 1968 - Florida - vacation

Dave, Steve, Eric and I had breakfast at a Royal Castle on Whitehead Street while Helen and Dianne had a bite to eat in our room. As we headed north on U.S. 1, we listened to a radio station from Havana, Cuba (about 100 miles away), but the Spanish was spoken too fast for us to understand very much. I noticed en route that Islamorada (The Purple Islands) seemed to be a nice place with good motels (about 70 miles north of Key West). We stopped at John Pennekamp Coral Reef State Park and bought our lunch at a snack bar. This is near Key Largo. Then we all took a ride on a glass-bottom boat out to the coral reef area and saw many varieties of live coral.

We then drove to Naples via U.S. 1, Route 27, and U.S. 41 (which is the famous Tamiami Trail). We checked into the Holiday Apartments of Naples (210 4th Avenue S., phone no.- 813-MI-2-5175).

The kids and I went for a walk on the nearby beach, which was about two blocks away but within easy walking access, while Helen went shopping for some groceries.

We had dinner in our apartment. After dinner Helen took Dave and Steve for a ride along the Tamiami Trail, but they didn't find anything.

Monday, August 19, 1968 - Florida - vacation

The big news this morning is that the Southern Ribbon Snake gave birth to a litter!

We had breakfast in our apartment. Steve, Eric, and I played 18 holes of golf at the Moorings Golf and Country Club. We all had lunch in our apartment. Then we all went swimming in the Gulf of Mexico in the afternoon at the beach area which is about two blocks from our apartment.

Our impression is that Naples is a beautiful place with many nice motels, apartment motels, golf courses, etc.

We had dinner in our apartment. Helen took Dave and Steve snake hunting on the Tamiami Trail, but they didn't find any snakes.

Tuesday, August 20, 1968 - Florida - vacation

We had breakfast in our apartment. Steve, Eric, and I played 18 holes of golf at the Hi Point Golf Club (largely a par 3 course; we played the front nine twice - par 2 x 29 = 58). Dave went swimming in the Gulf of Mexico.

We then started out on the Alligator Alley (a toll road) toward the east coast (Highway 838). We had a picnic lunch on the way and drove on to West Palm Beach and checked into rooms 3 and 4 of the Sea Grape Motel - Apartments (2618 Broadway - phone No. 833-4621). I drove Dave to Palm Beach so he could have a swim. The others picked up carry-out dinners at Hungry Jacks, which was across the street from our motel, and ate them in our rooms. When Dave and I returned, we were joined by Steve and had dinner at Hungry Jacks (a second bite to eat for Steve). Helen, Dave, Eric, and Dianne went swimming in the motel pool.

Wednesday, August 21, 1968 - Florida - vacation

The big news this morning is that Czechoslovakia was invaded by Russian, Polish, East German, Hungarian, and Bulgarian troops last night.

We had breakfast in our motel rooms. We then drove to "Lion Country Safari", at Royal Palm Beach, near West Palm Beach. We drove through this and saw numerous animals, including a large portion of the 110 lions and lionesses, and the elephants, rhinoceros, zebras, giraffes, chimpanzees, etc. This was quite a sight, and it was necessary to keep the car windows closed during the ride. We stopped many times close to the lions and I took movies and color pictures.

We had lunch at the Safari restaurant. Tragedy struck during the lunch for Dave, who left his snakes in coffee cans in the hot car, which led to the death, or incipient death, of three of them, including the Southern Ribbon snake and its litter. The fourth had died a couple of days ago. He had previously been careful to always take them out of the car and find a shady place for them.

We drove up to Cocoa Beach via the Sunshine State Parkway U.S. 1, and Route 1A1, and checked into the Holiday Inn at Cocoa Beach (Rooms 279 and 281). Here we were met by a large NASA bus with Gordon Harris (NASA Public Information) and Taylor (NASA Protocol). We rode on the bus for a tour of the John F. Kennedy Space Center area at Cape Kennedy; descriptions were given by Harris. First we saw the Delta rocket, used for launching of synchronous communications satellites. We saw the area where Alan Sheppard was launched for the first U.S. suborbital flight and saw a rocket like the one that was used which had a 70,000 pound thrust. We then saw the launcher used by Explorer 1 (first U.S. satellite) which was launched on January 31, 1958.

Harris told us that Cape Kennedy was opened to public tours in July 1966 and now people are visiting at the rate of 4,000 per day or 1,000,000 per year. The number of government guests (i.e., participants in conferences, VIPs, near VIPs, etc.) are now 20,000 per year.

We next visited the U.S. Air Force Space Museum. Here we saw the following rockets, among others: Agena, Matador, two types of Polaris, Atlas Jupiter, LaCrosse, Thor, Titan (used for Gemini missions), Navaho (Ram-jet), Mace Nike Ajax, V-1 (German World War II), Minuteman.



Cape Kennedy Space Center, August 21, 1968

Steve, Dave, Eric and Dianne Seaborg

We then toured the Centaur rocket area. These are used to launch the surveyors for soft landings on the moon and use liquid hydrogen for their second stage.

Then we saw the area used for launchings of the first manned orbit flights of John Glenn, etc. This is not used now. Next we saw the launch area for the Gemini flights and I took color pictures of our family at the large sign which summarizes all the Gemini flights.

We then visited the Apollo rocket (under construction) in Complex 34, which will be used for the first Apollo flight by the three astronauts, Walter M. Schirra, Walter Cunningham, and Donn F. Eisele. As we proceeded to our next destination, we saw at a distance the launch pad where the three astronauts burned to death during the first Apollo attempt. We then visited the Block House (now called Launch Control Center) for the Saturn IB Apollo rocket. Actually this one will be used next in 1971. I took movies outside this center.

We proceeded to Merritt Island to the Saturn V Complex. Here the Saturn V rocket is being built (standing 565 feet high). We toured this assembly building and I took movies inside and color pictures outside. A NASA photographer took pictures of our family in front of this building. We saw the transporter which weighs 6,000,000 pounds and will be used to move the Saturn V, which weights 12,000,000 pounds, from the assembly building to the launch site. This can be done in either direction in about eight hours. The assembly building is hurricane-proof. I took movies and color pictures of the transporter and the NASA photographer took more pictures of our family here.

We then rode past a number of key buildings, such as the simulator building, manned spacecraft operations building, etc.

We rode on the bus back to the Holiday Inn at the end of the tour. We went to eat at Fat Boys (near the Holiday Inn on Route 1A1).

After dinner Dave, Steve, Eric, and I took a walk on the beach, starting in front of the Holiday Inn. Dianne played in the Holiday Inn children's playground.

When I called into the office today I found that Warren Kornberg, Editor of Science News- Science Service, has written me a letter dated August 13th regarding his idea of exploring the possibility of "offering scientists, whose names and views carry weight, space as guest columnists" in Science News and to see whether I would start off the idea with the first column, which would be required by the beginning of September. He said that the subject of this first column could be anything from disarmament to education, and anything in between. Kornberg has discussed this idea with a number of other people. Suggested names for guest columnists are: Donald Hornig, Jerry Wiesner, Michael de Bakey, Arthur 163

Kornberg, George Gamow, Fred Hoyle, etc. I asked my office to call Kornberg and tell him I will try to come up with such an article. (The article, "Nuclear Power Age Begins with Crops, Factories," was released by Science Service, January 16, 1969.)

Thursday, August 22, 1968 - Florida - vacation

Dave, Steve, Eric, and I had breakfast at a Royal Castle on Route 1A2, near our motel, while Helen and Dianne ate in our rooms.

I called Jeanette to get a report on Mom and learned she is failing. She is suffering some hallucinations from the pain-killing drugs which are being administered to her.

I called Ross Allen of the Ocala Institute in Ocala and upon learning that they have snakes for sale, we decided to drive to Ocala to visit the institute. We drove on Route 1A1, State 520, State 50 through Orlando, Sunshine State Parkway to Wildwood, and then Highways 75 and 200 to Ocala. We drove through Ocala to Silver Springs on Route 70 and visited the Ross Allen Snake Institute, after buying a hot dog lunch on the premises. The lake with the glass bottom boats and many shell shops, etc., were on the premises.

At the Institute we bought a number of snakes - a black Florida racer, a coach whip, four yellow rat snakes, and a gopher tortoise. On the way back we stopped at the Ocala Pet Shop on Route 70 and bought a gray rat snake and an Everglades rat snake. We then headed north on Route 301 to Folkston, Georgia, where we turned off and drove into the Okefenokee National Wildlife Refuge (Okefenokee-Choctaw Indian for "quivering earth" swamp). We then drove back to Folkston and on to Waycross, passing through Okefenokee Swamp State Park on the way. We checked into the Al-Mar Motel (rooms 23 and 24) in Waycross.

We had dinner in the Steak House which was across the street (U.S. 1). Helen, Dave, Eric, and Dianne went swimming in the motel pool after dinner.

Friday, August 23, 1968 - Florida - vacation

Dave, Steve, Eric and I had breakfast in the Steak House which was across the street from our motel. Helen and Dianne had a bite to eat in our rooms. We drove north through Georgia on the Woodpecker Trail and then on to Allendale, South Carolina, where we had lunch in the Crescent Restaurant (the same restaurant that we stopped at on the way south).

We drove over to the AEC's Savannah River Plant where we were met by Nat Stetson, Manager of the AEC Savannah River Operations Office. We had a two-hour tour of the Savannah River Plant, under the direction of Nat Stetson and, in part, of Melvin Sires of the Operations Office. We started with a conference with Frank Kruesi, Director, Savannah River Laboratory, and Clark Ice, Assistant Director, Savannah River Laboratory, in the Administration Building. We went first to the laboratory where Bibler of Chemical Technology, showed us the Glassblowing Shop. We had to wear shoe covers and safety goggles. The glassblower blew a swan out of glass for Dianne and gave Helen a tiny pitcher.

We visited the Hot Laboratory where we saw a two-gram sample of curium-244 in solution which glowed with reddish light. We also saw cobalt-60 capsules which are being prepared as fuel elements. The Hot Laboratory was full of action, with

many people working. We then traveled with Stetson and Sires in a stretchout to the C Reactor. Here we saw the control room, the control rod assembly, and the irradiated fuel elements underwater, some of which emitted strong Cerenkov radiation. E. H. Judkins, Superintendent of C Reactor Area, showed us around. We then drove by the F Chemical Extraction Plant and back to the Administration Building.

We picked up our snakes which had been left there to keep them cool. We met Sires' family. Nat Stetson then led us in his car by the outskirts of Aiken and on to Highway 215 on the way toward Columbia, South Carolina. We drove past Columbia to Camden and checked into the Mona Lisa Motel (Rooms 14 and 15) on U.S. 1. We had dinner (an excellent one) at the restaurant connected with the motel. Today was apparently the hottest day in history in this region - 106° F (official temperature in Columbia).

During the tour of the Savannah River Plant we also saw the Radioactive Waste Disposal site where the dirt from Palomares was buried and where the material from Thule, Greenland, will also be buried.

#### Saturday, August 24, 1968 - Florida - vacation

Dave, Steve, Eric and I had breakfast in the motel restaurant while Helen and Dianne had a bite to eat in our rooms. We then drove north on U.S. 1 and then cut across to I95 at Fayetteville, North Carolina, and continued north on I95. We stopped at Kenly (on a U.S. 301 portion of the I95 route) for lunch at a Taste Freeze. We continued north on I95 and arrived home at 6:30 p.m.

We have traveled a total of 3,575 miles.

#### Sunday, August 25, 1968 - home

I spent the day and evening reading the stacks of AEC papers that accumulated during my vacation.

I called Jeanette and learned that Mom is failing. Her energy is greatly diminishing and she finds it difficult even to read the postcards we sent her during our vacation.

I took a hike with Steve and Suki in Rock Creek Park.

#### Monday, August 26, 1968 - Germantown

I spent the day catching up on reading and work accumulated during my vacation.

At 12:30 p.m. I had lunch with Arnie Fritsch and Stan Schneider, followed by a walk around the building.

I talked, by phone, with Al Ghiorso, who feels confident that he has proved Flerov, et al., wrong in their claim to the discovery of element 104.

At 4:25 p.m. I attended the screening of the film taken at the 25th Anniversary Celebration of the First Nuclear Chain Reaction on December 2, 1967.

I wrote to Mother to tell her we have returned safely from our vacation trip to Florida, my notification that I will receive the Arches of Science Award, etc., but I am afraid that she has reached the point where she can't read my letters.

Tuesday, August 27, 1968 - Germantown

Richard Hewlett discussed with me the problem that has arisen with respect to publication of Volume II of the AEC history. In the process of clearance with the DOD, for security reasons alone, many people suggested changes in content, and also after the manuscript was shown to Admiral Rickover, who raised questions, he asked that it be shown to members of the JCAE. Since this could lead to suggestions that might be unacceptable, i.e., attempts to influence the content, we will resist showing it to the JCAE. The problem in the DOD and with Rickover seems to be resolved.

At 10:55 a.m. I called Dr. Warren Winstead, Nova University. In reference to his letter to me of July 18, 1968, I told him that I didn't know whether my schedule would permit me to attend the next meeting of the Nova University Advisory Board and in any event the only possible days would be March 24th and 25th. He said that time seems to be most convenient for most of the Board members. I also told him I had stopped by Nova University during my vacation in Florida but had been unable to reach him. He said he was very sorry he missed seeing me.

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

At 12:30 p.m. I had lunch in the cafeteria with Arnie Fritsch and Justin Bloom.

At 1:15 p.m. I presided over Regulatory Information Meeting 309 (notes attached).

At 1:45 p.m. I presided over Information Meeting 825 (notes attached). Among the items discussed were the following: 1. Proposed reply to William C. Foster, ACDA, regarding cutoff of the production of fissionable material. The Commission requested the staff prepare a draft reply to the August 16th letter from Foster concerning approval of a draft speech to the ENDC on cutoff. 2. Proposed letter to the Deputy Secretary of Defense on Atomic Control arrangements. The Commission approved the proposed letter and I signed the letter. 3. Commissioner Ramey requested that borderline situations or novel Phase III design cases be brought to the attention of the Commissioners in advance. The Commissioners agreed. Mr. Ramey reiterated his earlier dissent on the agreement itself. The Commissioners noted staff would submit no less often than every six months a summary report of data actually transmitted. 4. Continued Finnish interest in an Agreement for Cooperation. The Commission approved proposing to the Finns that the Agreement contain all the features of U.S. long-term power agreements, except an appendix listing reactors to be fueled, and provide that the U.S. will supply, under terms and conditions as the parties may agree, and subject to the quantity limitations contained in the agreement, such quantities of U-235 as may be agreed for use in a power reactor program. The quantity limitation would be established at an amount which would accommodate needs other than long-term power reactor fueling. This approach will leave for subsequent agreement the reactors to be fueled. 5. Johnson history project - I noted the need for early review by the Commissioners of the "Guide to the Historical Records of the Atomic Energy Commission during the Administration of President Johnson," in order to meet the submission deadline of Friday, August 30, 1968.

Attached is a copy of a letter from Senator Edward Kennedy regarding the "Nuclear Power and Environment: An Inquiry" seminar sponsored by the Conservation Society of Southern Vermont.

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

August 27, 1968

DC FILE

OFFICE OF THE CHAIRMAN

The President  
The White House

Dear Mr. President:

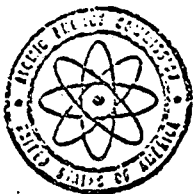
I have the pleasure of submitting the biweekly report on significant developments in the atomic energy program:

1. The reduced FY 1969 funding for the joint NASA/AEC Nuclear Rocket Program is resulting in significant contractor personnel reductions for Westinghouse in the Pittsburgh area (200 employees), Aerojet-General at Sacramento (about 200 employees), and for both these and other contractors at the Nuclear Rocket Development Station in Nevada (about 120 employees). Further reductions are expected in later months.
2. We are implementing the plans you recently announced to return Bikinians to the atoll where they lived prior to the nuclear tests of 1946. AEC has two members on the team of specialists who are visiting Bikini Atoll to develop a detailed plan to prepare the islands of Enyu and Bikini for useful habitation. Eight Bikini natives are included on this team to take part in the planning activities.
3. Lt. Gen. H. C. Donnelly became manager of our Albuquerque Office on August 12 following his retirement from the Air Force. He succeeds Lawrence P. Gise who retired earlier this year.
4. A number of foreign officials are scheduled to visit AEC Headquarters in the next few weeks. Included are the following:
  - Indian AEC Chairman Vikram Sarabhai in the period September 2-5.
  - Atomic Energy Authority Deputy Chairman Sir Charles Cunningham on September 10.

Respectfully yours,

(Signed) Glenn T. Seaborg

Glenn T. Seaborg



UNITED STATES  
ATOMIC ENERGY COMMISSION  
WASHINGTON, D.C. 20545  
REGULATORY INFORMATION MEETING 309

UNCL. BY DOE  
NOV 86

1:15 p.m., Tuesday, August 27, 1968, Room A-458, Germantown

1. AEC-R 187 - 10 CFR Part 39, Regulation of Commercial Decontamination Laundries

Approved. (ADRA)

2. AEC-R 4/34 - Subpoena of ACRS Members

The Commissioners requested a revised response as discussed, for clearance by the individual Commissioners before signature and dispatch. (ADRA)

3. Mr. Price's August 23 Memorandum re Proposed Letter to Representative John D. Dingell - Construction Work - Shoreham and Easton Nuclear Stations

Approved with revisions outlined by Mr. Price. (ADRA)

4. Mr. Price's August 21 Memorandum re Issuance of Export License

Noted.

5. Mr. Price's August 6 Letter from Mr. Stathakis, General Electric, re Regulatory Program

Noted.

6. Southern Nuclear Engineering, Inc. Report on Industrial Sabotage

The Commissioners noted copies had been distributed to the Commission for review prior to distribution to ACRS, JCAE and ultimately to the public (without the OIU attachment). (ADRA)

7. Dresden II Jet Pump Difficulties

F. T. Hobbs  
Acting Secretary 1:45 p.m.

PRESENT:

COMMISSIONERS:

Chairman Seaborg  
Commissioner Ramey  
Commissioner Tape  
Commissioner Johnson

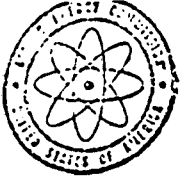
STAFF

Mr. Price  
Mr. Henderson  
Mr. Wells  
Mr. Yore  
Mr. Hennessey  
Dr. Fritsch  
Mr. Hobbs

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Commissioners  
Dir/Regulation  
General Counsel  
General Manager  
Secretary





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

COPY NO. \_\_\_\_\_  
August 27, 1968

2 INCL. BY DOE  
NOV 86

INFORMATION MEETING 825

1:45 p.m., Tuesday, August 27, 1968, Room A-458, Germantown

1. August 21 Letter from BOB Director Zwick re Assignment of Personnel Vacancies to AEC Regulatory Program

Noted.

2. Calendar Planning

a. Commissioners' Informal Meeting with TVA Representatives

The Commissioners requested rescheduling from Saturday, September 7, at 10 a.m. to late Friday afternoon, September 6. (SECY)

b. Scheduled AEC Budget Meetings

The Commissioners noted only luncheon commitments had been made and therefore there were no conflicts with scheduled budget meetings.

3. August 21 Letter from John Conway re Procurement of Beryllium Parts from Private Industry

The Commissioners noted the General Manager's plan of action. (ACNMA)

4. August 20 Letter from BOB Director Zwick re FY 1970 Budget Estimates

Noted.

5. August 23, 1968 Letter from Robert B. Anderson, Chairman, Atlantic-Pacific Inter-oceanic Canal Study Commission

Noted.

This material contains information affecting the national defense of the United States within the meaning of the espionage laws, Title 18, U.S.C., of Sections 793 and 794, the transmission or revelation of which in any manner to an unauthorized person is prohibited by law.

6. August 16 Letter from William Foster, ACDA, re Approval of Draft Speech to ENDC on Cutoff

The Commissioners requested a draft reply as discussed be scheduled. (SAD/SECY)

7. August 12 Letter from the President re Return of Bikini People (See also Acting Chairman Ramey's August 21 Letter to the Secretary of Interior)

Noted.

8. August 21 Letter from Walt Rostow re Regrets to Invitation to IAEA General Conference

Noted.

9. Proposed Letter to James Young, AIF, re Joint Study on Plutonium 238 Utilization and Cost

Approved with revisions. (SNS)

10. Senator Bartlett's August 14 Letter re NTS Underground Tests

Proposed reply to be considered Wednesday, August 28. (DMA/SECY)

11. AEC 1123/8 - Draft Reply to Senator Cannon Concerning Las Vegas Industrial Diversification

Revisions requested. (DMA)

12. AEC 1249/13 - Contract for Test Support Services at the Nevada Test Site

Approved; the Commissioners requested staff also undertake to obtain separate diversification commitment. (DC)

13. Governor Paul Laxalt's August 14 Letter Inviting Atomic Energy Commission to be a Member of Natural Resources Council

The Commissioners noted the General Manager would provide additional information. (DCM)

14. NTS Events (See General Giller's August 22, 1968 Memorandum)

Noted. (DMA)

15. Executive Session
- a. General Manager's August 19 Memorandum re Personnel Item  
Noted.
  - b. Assistant Director for Nuclear Safety; RDT
  - c. DUSAF Contract Status (Oral)
16. AEC 1037/47 - Proposed AEC/Romanian Exchange Program for 1968-1970  
Approved as revised for transmittal contingent on clearance by State Department. (DIA)
17. AEC 842/37 - Draft Letter re AEC/CNEN Contract for Chemical Reprocessing and Refabrication of Elk River Reactor Fuel Elements  
The Commissioners approved the General Manager's proposed course of action. (DIA)
18. AEC 1083/123 - U. S. Offer to Host IAEA Specialist Meeting on Sodium-Water Reactors at ANL  
Approved contingent on State Department clearance. (DIA)
19. IAEA High Energy Physics Conference, Vienna, August 1  
The Commissioners noted Mr. Kratzer's report of withdrawal of AEC approvals of adjunctive visits to Eastern European countries on advice of Department of State.
20. AEC 1285/2 - Continued Finnish Interest in an Agreement for Cooperation  
Approved. (DIA)
21. AEC 890/137 - Revision of DIA Delegation of Authority  
Approved. (DIA/PER/OGC)
22. AEC 1288 - Johnson History Project  
The Chairman noted need for early review by the Commissioners in order to meet submission deadline, Friday, August 30, 1968. (Fritsch/Ryan/Rosen/Helfrich)
23. AEC 764/195 - Proposed Letter to the Deputy Secretary of Defense on Atomic Control Arrangements  
Approved; the Chairman signed the letter. Commissioner Ramey requested that borderline situations or novel Phase III design cases be brought to the attention of the Commissioners in advance. The Commission agreed. Mr. Ramey reiterated his earlier dissent on the agreement itself. The Commissioners noted staff would submit no less often than every 6 months a summary report of data actually transmitted.

24. AEC 141/100 - Technical Briefings on Nuclear Testing Safety

Commissioner Tape will discuss the matter with Dr. Hornig. (Rosen)

F. T. Hobbs  
Acting Secretary

4:30 p.m.

PRESENT

COMMISSIONERS

Chairman Seaborg  
Commissioner Ramey  
Commissioner Tape  
Commissioner Johnson

STAFF

Mr. Hollingsworth  
Mr. Bloch  
Mr. Brown  
Mr. Price\*  
Mr. Henderson\*  
Mr. Wells\*  
Mr. Yore\*  
Mr. Hennessey  
Dr. Fritsch  
Gen. Giller\*  
Mr. Winter\*  
Mr. Erlewine\*  
Mr. Hobbs

DISTRIBUTION

Commissioners  
General Manager  
General Counsel  
Secretary

\* Attendance by Topic(s)

LISTER HILL, ALA., CHAIRMAN  
WAYNE MOHSE, OREG.  
RALPH YARIBROUGH, TEX.  
JOSEPH S. CLARK, PA.  
JENNINGS RANDOLPH, W. VA.  
MARRISON A. WILLIAMS, JR., N.J.  
CLAUDORNE PELL, R.I.  
EDWARD M. KENNEDY, MASS.  
GAYLORD NELSON, WIS.  
WALTER F. MONDALE, MINN.

JACOB K. JAVITS, N.Y.  
WINSTON L. PROUTY, VT.  
PETER H. DOMINICK, COLO.  
GEORGE MURPHY, CALIF.  
PAUL J. FANNIN, ARIZ.  
ROBERT P. GRIFFIN, MICH.

STEWART E. MCCLUNE, CHIEF CLERK  
JOHN S. FOREYTHE, GENERAL COUNSEL

## United States Senate

COMMITTEE ON  
LABOR AND PUBLIC WELFARE  
WASHINGTON, D.C. 20510

August 27, 1968

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

Dear Mr. Chairman:

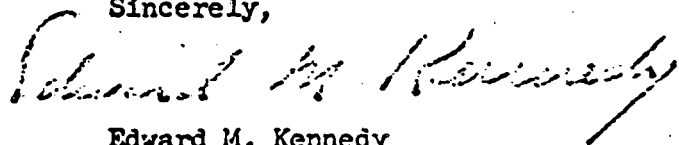
As I believe you are aware, the Conservation Society of Southern Vermont has scheduled a seminar on "Nuclear Power and Environment: An Inquiry" for September 11 and 12, 1968. In addition, the Society has a continuing interest in exploring the general danger of environmental pollution from nuclear power plants.

Mr. C. Peter Strong and Mr. John W. Stevens, respectively President and Director of the Society, are very anxious to have federal participation in these efforts -- most particularly at the seminar -- so that all viewpoints will be represented in the Society's investigation and analysis.

As you know, I have a deep concern for the range of problems presented by the development of nuclear power plants, and certainly the efforts of the Society for frank discussion and planning are commendable. I would appreciate your giving every possible assistance to this organization.

With warm regards.

Sincerely,



Edward M. Kennedy

(Reference - Regulatory Information Meeting 310 - 9/3/68)

Wednesday, August 28, 1968 - D.C.

At 9:45 a.m. I presided over Information Meeting 826 (notes attached). During the Information Meeting the Commission approved a revised statement of policies relating to uranium supply policy through July 30, 1973 (copy attached). In the revised statement, the Commission reaffirmed its preference for toll enrichment in AEC facilities of privately procured uranium over sale of either enriched or natural uranium from government stocks at this time.

The Commissioners decided to award the 1968 Fermi Award to John A. Wheeler (the other nominees of the GAC were General Leslie R. Groves, who was their first choice; Norris E. Bradbury; and Arne Sigvard Eklund). Ramey was reluctant but finally agreed. I made the argument that Wheeler met the White House criteria (nuclear giant prior to 1945) and it is important to have a recipient this year in order to keep the award alive. We agreed that Wally Zinn would be a good candidate for the next award and that he might represent a transition to different criteria for the winner.

I had lunch at 1 p.m. with Arnie Fritsch at the Pot 'O Gold Restaurant, followed by a walk around Lafayette Park.

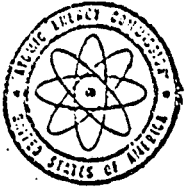
At my insistence we had a 3:15 p.m. Commission Executive Session 2335 (action summary attached) to decide on a policy for the development of a gas centrifuge method of separating uranium isotopes. Attending were Commissioners Ramey, Tape, and Johnson, and Bob Hollingsworth, Ed Bloch, Myron Kratzer, George Quinn, Howard Brown, and Joseph Hennessey. We have been drifting on this issue due to Ramey's insistence that we slow down the development, which is an unrealistic plan because we cannot control the rate of development in other countries. This is an "ostrich-head-in-the-sand" approach. Our development program shows that this process has a tremendous potential and may be an economic competitor to the gaseous diffusion method. The Commission agreed to pursue the development vigorously and to make a study of foreign developments and to decide whether we should cooperate with some of these in order to be in a position to monitor and possibly control them. After this study we will consult with the State Department and the White House to evolve a national policy.

I called Dr. Zimmerman, who had just returned from his vacation, to get a report on Mom. She has finished her radiation treatments - a total of 3,000 R to the left kidney area and 3,000 R to the three back vertebrae. He said this has alleviated her back pain somewhat but agreed that the radiation may have contributed to her present malaise.

This afternoon I watched on television the Democratic National Convention (held in Chicago) battle on the Vietnam part of their platform. The opponents to President Johnson's policy lost in a rather close vote. I watched the nomination for President during the evening. Hubert Humphrey was nominated with about 1,760 votes. Several police actions against peace demonstrators were shown prominently on television; this certainly detracted from the national image for the Democratic Party.

Thursday, August 29, 1968 - D.C.

At 11 a.m. the Commissioners met with Robert S. Hansen (replacement for F. H. Spedding), Director of Ames Laboratory - the first meeting with him in our series of meetings with our laboratory directors. We discussed the program and plans for the Ames Laboratory.



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

COPY NO. \_\_\_\_\_ 2  
August 28, 1968  
INCL. BY DC  
NOV 86

INFORMATION MEETING 826

9:50 a.m., Wednesday, August 28, 1968, Chairman's Conference Room, D. C. Office

1. Executive Session \*
  - a. Fermi Award  
Discussed.
  - b. Dr. Tape Reported on Discussions on Strategic Arms Limitations
2. AEC/CNEN Contract Matter (AEC 842/37)
3. AEC 20/213 - Atlas Corporation  
The Commissioners approved staff proceeding with alternative "c," with alternative "d" as the fallback position. (RM)
4. AEC 359/80 - Revised Statement on Uranium Supply Policies  
Approved. (RM)
5. AEC 20/215 - Study of Uranium Production Potential of Phosphate Industry  
Noted. (RM)
6. AEC 1096/92 - 200 BEV Accelerator Project  
Approved. (AGMO)
7. Wilhelm Visit to Weston

---

\* Present for this item were the Commissioners, Dr. Fritsch and the General Manager only.

8. AEC 180/43 - Report of Task Force on AEC Operational Radioactive Waste Management  
Approved; the Commissioners requested periodic progress reports. (AGMO)
9. AEC 292/7 - Nominees for Appointment to Advisory Committee for Biology and Medicine  
Approved. (BM)
10. AEC 1283/11 - Draft Program Memorandum: Development of Central Station Nuclear Power  
The Commissioners requested revision and rescheduling. (AGMR/RDT/SECY)
11. AEC 1267/9 - Nuclear Orientation of Utility Management and Staff  
Approved; the Commissioners requested Regulatory staff provide information on training requirements. (RDT/ADRA)
12. AEC 696/157 - Status of BPA-AEC Discussions on N-Reactor  
The Commissioners approved Mr. Johnson's proposed letter to Mr. Richmond (Attachment C) and the development of a power-only oxide fuel element for the N-Reactor. (P)
13. AEC 719/71 - Radiation Preservation of Foods: Recommendations of Army Advisory Committee, July 25, 1968  
Noted.
14. AEC 994/59 - Promethium 147 Pricing  
Noted.
15. AEC 141/101 - Proposed Reply to Senator Bartlett's August 14 Letter re NTS Underground Tests  
Staff will obtain individual Commissioners comments and reschedule Friday, August 30, if indicated. (DMA/SECY)
16. AEC 1130/42 - National Nuclear Test Readiness Program  
The Commissioners approved the proposed joint letter noting that this approval did not extend to funding levels. (DMA)
17. AEC 374/184 - AEC PAL/PAPS Program  
The Commissioners requested a briefing by DOD and AEC Laboratory representatives and an Executive Session with Dr. Walske be scheduled in October. (DMA/SECY)



18. NTS Events (See General Giller's August 26 Memorandum)

Noted. (DMA)

19. Johnson History Project

The Chairman urged prompt Commissioner review and comments, if any, in order to meet Friday's transmittal deadline. (AGM)

20. Pending Contractual Matters Report 271 (includes all data from PCM 269 and 270)

To be rescheduled Friday, August 30.

F. T. Hobbs  
Acting Secretary

1:10 p.m.

PRESENT

COMMISSIONERS

Chairman Seaborg  
Commissioner Ramey  
Commissioner Tape  
Commissioner Johnson

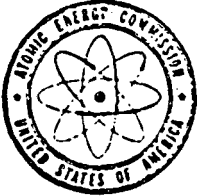
STAFF

Mr. Hollingsworth  
Mr. Bloch  
Mr. Brown  
Mr. Hennessey  
Dr. Fritsch  
Mr. Erlewine\*  
Dr. Totter\*  
Dr. Kavanagh\*  
Mr. Giambusso\*  
Mr. Quinn\*  
Mr. Voight\*  
Mr. Hobbs

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Commissioners  
General Manager  
General Counsel  
Secretary

\*Attendance by Topic(s)



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

Chairman Seaborg  
Commissioner Ramey  
Commissioner Tape  
Commissioner Johnson  
THRU: General Manager

A handwritten signature in black ink, appearing to read "S. J. Seaborg".

REVISED STATEMENT ON URANIUM SUPPLY POLICIES

Mr. Aspinall, Chairman, Subcommittee on Raw Materials, Joint Committee on Atomic Energy, has reviewed the proposed statement on uranium supply policies. Generally, I believe, he wanted it made clear that the Commission intended to obtain public comment on future sales policies and changes in its position on enriching foreign uranium. Secondly, he believes that the Commission should clearly indicate it would review the need for escalation of the \$8 price if conditions warrant. He noted that economic conditions could change materially between now and June 30, 1973.

I believe the changes we have drafted are consistent with the Commission's intentions and would be satisfactory to Mr. Aspinall. They are shown on the attached release where words deleted have been dashed and those added underlined. Minor changes would be made on the Federal Register Notice to track those indicated in the press release.

Mr. Aspinall indicated that he would not object to issuance of the Federal Register Notice and press release as revised, and I agreed to call him again when we had worked out the language. If we are unable to agree on the language changes, however, he would like to discuss the proposed issuance with us on September 3 when he will be back in Washington.

Comments on the proposed language changes are requested.

A handwritten signature in black ink, appearing to read "Rafford L. Faulkner".

Rafford L. Faulkner  
Director  
Division of Raw Materials

Attachment:  
As stated

PROPOSED PRESS RELEASE

AEC Issues Revised Statement  
on Its Uranium Supply Policies

The Atomic Energy Commission today published in the Federal Register a revised statement of policies relating to uranium supply through June 30, 1973. These policies will apply to sales either of enriched uranium to be delivered no later than June 30, 1973, or of natural uranium to be subsequently toll enriched if the enriched uranium is to be delivered no later than June 30, 1973. The AEC contemplates issuing in sufficient time for public comment the proposed terms and conditions applying to any sales of Government-owned uranium to meet a requirement for enriched uranium to be delivered after June 30, 1973.

A proposed statement on this subject was published in the Federal Register on November 9, 1967, with request for public comments. The AEC received 26 letters of comment from uranium producers, utilities, and other persons interested in the nuclear power industry.

The comments were generally favorable to the proposed policies, with a majority of the suggestions being directed to the availability and price of uranium. Careful consideration was given to these comments in preparing the revised notice.

In the revised statement, the Commission reaffirms its preference for toll enrichment in AEC facilities of privately procured uranium over sale of either enriched or natural uranium from government stocks at this time. The arrangement whereby privately-owned uranium can be enriched in the isotope uranium-235 in government facilities upon payment of a service charge is called toll enrichment.

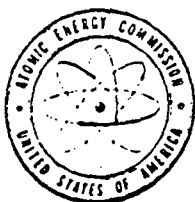
The AEC is willing, under certain circumstances, however, to sell Government-owned uranium on a single transaction basis. The price will be based on \$8 per pound of U<sub>3</sub>O<sub>8</sub> in concentrates. Some of the letters of comment contained suggestions relating to possible escalation of the \$8 price. Although at this time, the Commission sees no need to make provision for escalation, the matter will be considered again if conditions warrant. Sales of Government-owned enriched uranium will in general be limited to situations in which rapid delivery is required to meet unforeseen emergencies, where the material to be purchased is on lease from the AEC, or where small quantities are involved.

In other situations, the AEC will in general give preference to sale of natural uranium for toll enrichment rather than direct sale of enriched uranium. In such cases, any request for purchase of Government-owned uranium must be accompanied by evidence that the applicant has made a reasonable effort to purchase natural uranium from private domestic sources, and that it is not available on the required schedule or at a price not exceeding that being used as a basis for the AEC charge.

This notice differs from the previous notice in that it places preference on sale of natural uranium instead of enriched uranium if circumstances permit. Prospective purchasers are expected to present their requests sufficiently early to provide time for their needs to be met by purchase of uranium concentrates, conversion to uranium hexafluoride (UF<sub>6</sub>) in private facilities, and toll enrichment.

No date has been established for removal of the restriction on the enrichment of foreign uranium intended for domestic use. It appears at this time, however, that it may be possible to remove

the restriction by July 1, 1973, or earlier. The Commission intends to announce the proposed date as early as possible. Prior to reaching a decision on a date the Commission will provide opportunity for public comment. Consideration also will be given to the possibility of removing the restriction on a graduated scale.



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

August 28, 1968  
(Revised September 3, 1968)

R. E. Hollingsworth, General Manager

Approved \_\_\_\_\_

R.E.H.

Date \_\_\_\_\_

ACTION SUMMARY OF MEETING 2335, WEDNESDAY, AUGUST 28, 1968, 3:15 P.M.,  
ROOM 1115, D. C. OFFICE

SECY:FTH

AEC 610/121 - Gas Centrifuge Developments

The Commission requested:

- a. a staff analysis of U.S. international objectives which could be affected by U.S. enriching policies and alternative approaches for accomplishing these objectives;
- b. an outline of the analysis be submitted for Commission consideration on or before the week of September 16;
- c. an interim response to the Director, Energy Policy Staff's August 26, 1968 letter to the Chairman.

The Commission noted staff studies on the AEC Gas Centrifuge and Gaseous Diffusion Program are being circulated.

(AGM-AGMIA-AGMP&P)

Original signed  
W. B. McCool

W. B. McCool  
Secretary

cc:

Chairman Seaborg  
Commissioner Ramey  
Commissioner Tape  
Commissioner Johnson

At 12:15 p.m. Arnie Fritsch and I had lunch with Hansen at the Pot O' Gold Restaurant, after which Fritsch and I took a walk in Lafayette Park.

The Commissioners and staff met with members of the Edison Electric Institute (EEI) Policy Committee on Atomic Power at the Madison Hotel at 2 p.m. Present were J. K. Horton (Southern California Edison), Robert Allen (Consumers Power), Walker Cisler (Detroit Edison), W. J. Clapp (Florida Power Corporation), A. P. Perez (Florida Power Corporation), John Tillinghast (American Electric Power Corporation), J. D. Crawford (Consolidated Edison), S. R. Knapp (Connecticut Light and Power Company), R. T. Person (Public Service of Colorado), R. G. Rincliffe (Philadelphia Electric), L. H. Roddis (Pennsylvania Electric Company), T. Ayers (Commonwealth Edison), D. G. Allen (New England Electric), James Coughlin (Florida Power and Light Company), Carl Horn, Jr. (Duke Power), F. M. Warren (Portland General Electric Company), S. L. Sibley (Pacific Gas and Electric Company), Edwin Vennard (EEI Staff Director), and John J. Kearney (EEI staff).

We discussed 1. current legislation and legislative matters, 2. fast breeder development, 3. private ownership and uranium enrichment facilities, 4. AEC uranium policy, 5. training and nuclear orientation of utility personnel, 6. plutonium recycle, and 7. the report by Cisler on the World Power Conference in Moscow and reactions there to Soviet invasion of Czechoslovakia.

I called Jeanette and Dr. Dreher and learned that Mom has burning pain in the back of her chest, pain in her back and has stopped eating. Dreher feels that her cancer has spread to her liver, and possibly stomach and lungs. She refuses to have her lungs x-rayed; she says she is too weak. It looks very bad and her days are numbered.

Senator Edmund Muskie (Maine) was nominated as Vice President on the Democratic ticket in a real hassle involving the placing of Julian Bond in nomination in opposition.

Attached is a copy of my letter to Bob Wilson pledging Commission support of an effort to complete the 200 BeV Accelerator on schedule.

Friday, August 30, 1968 - Germantown - Albuquerque, New Mexico

Pete arrived home from Cambridge about 6 a.m. He completed his summer course at Harvard which qualifies him for graduation.

I spent the day at the Germantown office.

I saw Alvin Weinberg, Director of ORNL, at 9:20 a.m. He told me about the success of the fluorination process in separating the enriched uranium-235 from the fission products in the fuel from the Molten Salt Reactor. He also complained about his continuing problems with Milt Shaw.

At 10 a.m. I presided over Information Meeting 827 (notes attached). I cleared with the Commissioners, with some difficulty due to reservations by Jerry Tape, "A Guide to the Historical Records of the Atomic Energy Commission During the Administration of Lyndon Baines Johnson," which is due in Joseph Califano's

AUG 26 1968

Dr. Robert S. Wilson, Director  
National Accelerator Laboratory  
1301 West 22nd Street  
Oak Brook, Illinois 60521

Dear Bob:

At our meeting with you on July 31, 1968, we informed you of the unanimous support of the Commissioners and the General Manager for your five-year construction schedule for the 200 Bev Accelerator Project. I take this opportunity to reaffirm that support. In particular the Commission will seek in its FY 1970 budget a level of new obligational authority that is consistent with your schedule. In addition, as we discussed, we will strive to accomplish in FY 1969 the maximum degree of progress on the project consistent with the understanding and approval of the several concerned Committees of the Congress.

While the Commission, of course, cannot commit the Bureau of the Budget, the Administration, or the Congress to specific future budgetary actions for the Accelerator Laboratory, I assure you that we can and will use our best efforts at all stages to obtain, in FY 1970 and in later years, funds needed to complete this project in accordance with your construction schedule.

I understand that in your meeting with Don Hornig you received similar encouragement and support for your five-year schedule.

Cordially,

(Signed) K. C. Brooks

Chairman

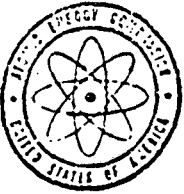
cc: Commissioners OC  
GM CONS  
Secretariat AGM  
RES AGM

K. C. Brooks

AGMO EAGM DGM GM  
JAerlewine:rd

8-29-68





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

ENCL. BY DOE  
NOV 86

COPY NO. 2  
August 30, 1968

INFORMATION MEETING 827

10:00 a.m., Friday, August 30, 1968; Room A-458, Germantown

1. Agenda for Week of September 2, 1968

Approved. (SECY)

2. NTS Events (See General Giller's August 29 Memorandum)

Noted. (DMA)

3. AEC 783/99 - Correspondence Concerning H.R. 18629 on AEC Responsibility to the Public Interest in Power Reactor Development

The Commissioners requested deletion of the next-to-the-last paragraph of the proposed letter to Mr. Conway. (OGC)

4. AEC 809/127 - Proposed U. S. Assistance to Rumanian Reactor Facility

The Commission:

- (a) Determined, pursuant to Section 57b of the Atomic Energy Act, that it would not be inimical to the interest of the U. S. for the Byron Jackson Pump Division, a Division of Borg-Warner Corporation, USA, through its Canadian subsidiary, Borg-Warner, Canada, to furnish large, mechanically-sealed, controlled-leakage pumps manufactured from U. S. origin technology to Canada for use in a Rumanian nuclear reactor power station, and such other technical data pertaining to these pumps necessary for a bid proposal, installation, and normal maintenance; provided that (1) the communication of Restricted Data or other classified defense information is not involved; and (2) other provisions of law are not violated.
- (b) Authorized the activities described in (a) above.
- (c) Required the persons so authorized to supply the information specified in Part 110.10(a) of the Commission's regulations.

(DIA)

5. AEC 1266/3 - Participation by Romanian National in ANL Safeguards Training Course

Approved with a waiver of tuition fee as requested by IAEA, with the understanding that the granting of the waiver in this instance is not to be construed necessarily as a precedent. (DIA)

6. Pending Contractual Matters Reports Nos. 271 and 272

Noted. (PAR)

7. AEC 997/108 - Application of IAEA Safeguards - Tarapur Station

The Commissioners approved the proposed letter to the Government of India for delivery after discussion with Dr. Sarabhai during his visit next week. (DIA)

8. Plutonium Pricing Policy (Article on UNC's earnings -- Nucleonics Week, August 29, 1968)

The Commissioners requested a reexamination of the present pricing policy in the light of the present situation. (OA)

9. Meeting with NASA Group on Budget and Program Matters

The Commissioners noted the General Manager's plan to meet with the NASA group today.

10. Access by DOD Personnel to Sensitive Weapons Design Information

The Commissioners requested submission of the proposed course of action outlined by Mr. Brown. (S)

11. Johnson History Project

The Commissioners approved transmittal today after individual Commissioner revisions. The Commission also requested that the transmittal letter reflect the Commission's concern that the guide be used only as source material and not be published. (AGM/SECY)

12. Commissioner Ramey's Meeting Today with State Department Planning Council on Mid-East Study

13. Bolsa Island Project Study

Discussed; Commissioner Ramey reported he hoped to have a report from Mr. Westphal on comparative costs within a week or 10 days.

F. T. Hobbs  
Acting Secretary

11:25 a.m.

PRESENT

COMMISSIONERS

Chairman Seaborg  
Commissioner Ramey  
Commissioner Tape  
Commissioner Johnson

STAFF

Mr. Hollingsworth  
Mr. Bloch  
Mr. Brown  
Mr. Hennessey  
Dr. Fritsch  
Dr. Friedman\*  
Mr. Hobbs

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Commissioners  
General Manager  
General Counsel  
Secretary

\* Attendance by Topic(s)

office today. (The material was transmitted by letter to Califano from me dated August 30, 1968.) The history was prepared by Richard Hewlett, with help from the division directors, and included some interesting case histories.

At 12:30 p.m. I had lunch in the cafeteria with Vic Schmidt and Arnie Fritsch, followed by a walk around the building.

At 3:30 p.m. Commissioner Johnson and I met with George Kavanagh to try to straighten out the report to the BOB on Advanced Converters - the staff version is very anti Advanced Converters because of their single-minded dedication to the Liquid Metal Cooled Fast Breeder.

I wrote to my Uncle Karl (mother's younger brother) and Aunt Jenny in Kopparberg, Sweden, to tell them sadly, about my mother's condition (copy attached).

Stan Schneider and I caught TWA flight No. 169 at the Baltimore Airport at 6 p.m. and flew to Albuquerque arriving at 10 p.m., an hour late due to delays caused by deliberate FAA traffic control at our Chicago stop. We were met by Sam Donnelly, Manager of the AEC Albuquerque Operations office.

I was later interviewed by Mrs. Urith Lucas of the Albuquerque Tribune; the questions were on the future of the New Mexico uranium industry and the present and future status of civilian nuclear power in the U.S.

Schneider and I spent the night in the guest quarters on the Sandia Base. I occupied Suite 5-7.

Saturday, August 31, 1968 - Albuquerque, New Mexico - Grants, New Mexico

At 7:30 a.m. Sam Donnelly, with the driver, Jim Peed, met Stan Schneider and me and we rode with them to downtown Albuquerque where we had breakfast in the coffee shop (the historic Harvey House) of the Alvarado Hotel. We were joined by Allan Jones, Manager of the AEC Grand Junction Office; W. Wilson Cliff, Reporter for the Albuquerque Journal; and Ray Carey, photographer for the Albuquerque Journal. Cliff and Carey joined us in our subsequent tour of mines and mills.

About 8:45 a.m. Schneider, Jones, and I rode with Peed in the Sandia "stretchout" west on Interstate 66 to Highway 40 to Grants. On the way out of Albuquerque we rode through the "Old Town" section of Albuquerque, including the Old Plaza. There were a number of Indians present to sell various goods, making it very picturesque.

We turned off Interstate 66 and Highway 40 at the Indian Pueblo of Laguna (also a very picturesque place) and drove on to Anaconda Jackpile and Paguate uranium mines, which do not operate on Saturday. The Laguna Indian Tribe has a number of villages (about seven) in this area. The mine superintendent at the Jackpile is John Herndon. We were met by Albert Fitch (mine manager), Herndon, Ray Holmquist (of the AEC Grants Office), and Fred Mills (personnel director for Anaconda). Schneider, Mills (who is a photographer), and I rode with Fitch around the periphery and through the Paguate Mine (a second pit, a follow-on to the Jackpile Mine which is nearly mined out). We visited the Truck Scanner Station, where scintillation counters determine the concentration of uranium in the truck loads. The equipment operators are nearly all Laguna Indians. More than 90 percent of the employees are Laguna Indians. In the office we saw dozens of rattles taken from captured rattlesnakes. We next visited the Jackpile Mine

August 30, 1968

Dear Uncle Karl and Aunt Jenny:

I am writing to tell you about my Mother. As you have already heard, she has been very sick this summer. She had an operation on July 2 for the removal of her left kidney. She got through the operation very well, but they found that the kidney had cancer in it and that the cancer had been spreading to other parts of her body. I am afraid I have to tell you that she is now very sick.

I went out to California to visit my Mother at the time of her operation, and then I made another trip later to see her again. She has the very best doctors and the very best treatment. Jeanette goes to the hospital every day to see her. We are doing everything we can for her, but I am afraid that this will not be enough.

Helen and I wanted you to know about Mother and, of course, Mother wanted you to know, too. Mother would write to you herself but she is too sick to do so. Perhaps you will tell Karin and Per, Bengt and Britta, and Gösta and Irene how things are.

I am leaving for Europe on September 18 to attend this year's General Conference of the International Atomic Energy Agency in Vienna. I don't know yet whether Helen will go with me this time. Unfortunately, it will be a short trip, and I will not be able to get to Sweden. I am due to return to Washington on September 28.

We hope that you are all well, and we send you our best regards.

With love,

~~Glenn T. Seaborg~~

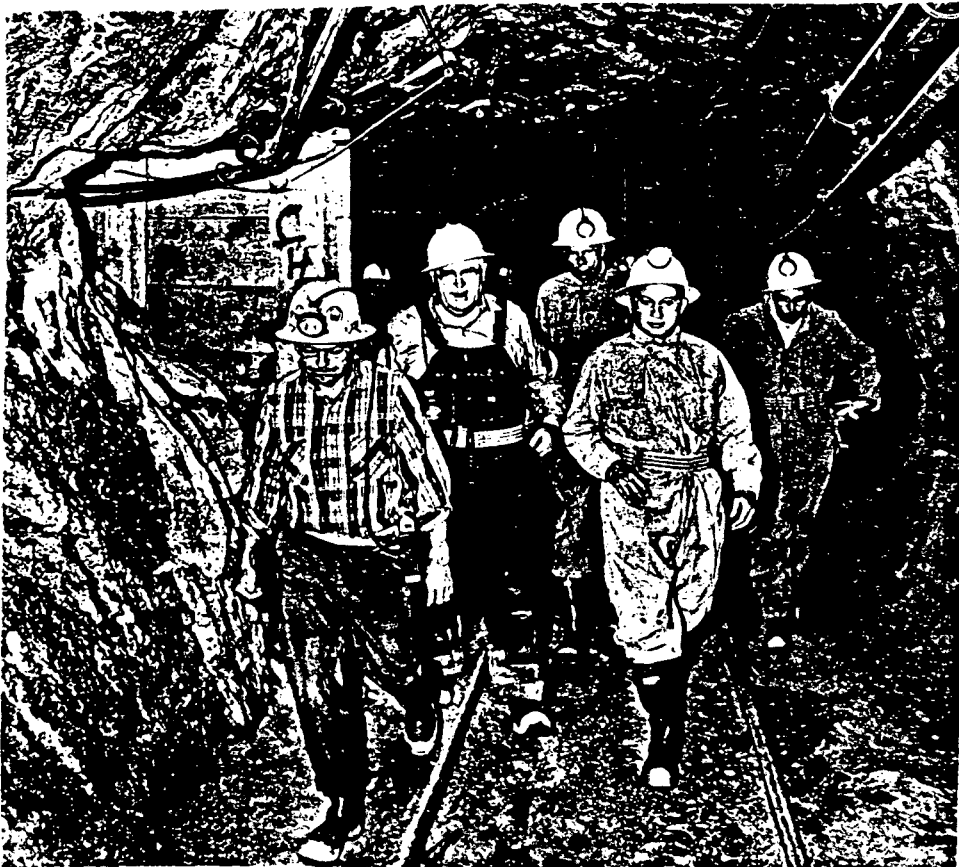
Glenn T. Seaborg

Mr. & Mrs. Karl Adolfsson  
Box 574  
Kopparberg, Sweden

GTS:MJ  
Adolfsson



Visiting the Jackpile Mine (Anaconda) near Grants, New Mexico, August 31, 1968  
L to R: Allan Jones, Seaborg, Albert Fitch



Visiting a Kerr-McGee uranium mine, Ambrosia Lake, New Mexico, August 31, 1968  
L to R: Jim Meisner, Jack Robison, Seaborg, Stanley Schneider, Allan Jones

where mining ceased about three years ago, after removal of about 16,000 tons of  $U_3O_8$  (7,000,000 tons of ore). We drove down through the open pit. All of this is part of the Laguna Reservation; consequently, the Laguna Indians have received large royalties. There are about 5,500 Laguna Indians governed by a Tribal Council and a governor. They invested their royalties in blue-chip stocks.

We drove back to Highway 40 and Interstate 66 and continued on to Grants.

Schneider and I checked into the Travelodge Motel (I had room 108) in Grants. Jones also checked in. We then went on to the Frontier restaurant where we had lunch with Fitch, in the nearby town of Milan. Cliff, Carey, Holmquist, Herndon, Mills (who photographed our visit), as well as Jones, Peed, Schneider and I were with Fitch at lunch. During lunch Cliff interviewed me on future uranium requirements and availability.

About 1 p.m. Schneider, Jones, and I rode with Peed to the Kerr-McGee mines and mill at Ambrosia Lake, passing the Homestake-Sapin Partners Mill on the way. We saw the Anaconda Mill in the distance. We also passed Haystack Mountain where the first discovery of uranium in New Mexico was made by Paddy Martinez in 1950. We also saw the old Phillips Mill which they turned over to United Nuclear in 1953 (also not operating now). We saw the Kerr-McGee mine exhaust fans pumping vapors into the air. This is the largest uranium mill - 5,000 to 6,000 tons a day.

We were met by F. C. Love, President of Kerr-McGee; Jack L. Robison (Manager of Uranium Operations, Oklahoma City), Billy Stevens (Ambrosia Lake Plant Manager), and Paul Stucker (Assistant Manager). They gave us a short briefing on their operations and then drove us (including Cliff and Carey of the Albuquerque Journal) to Section 33 mine (they have about seven underground mines here) where we were met by James Meisner (Superintendent of Mines). He took us all 800 feet underground, by elevator, where we walked about 1,500 feet and climbed up a ladder off to the side to see an actual mining drift that is in process of being worked (the mine wasn't operating because it was Saturday). We also went down another drift to see some cars in which ore is hauled (4- 1/2 tons per car). We came back up and toured the mill area by car. This, the largest mill in the U.S., mills 6,000 tons per day now, and will go up to 7,000 tons per day, and has produced 20,000 tons of  $U_3O_8$ . A top miner working a drift alone, like the one we saw, will mine 120 tons a day (which, with bonus, will pay him \$8 per hour). A poor one will mine 30 tons a day.

Schneider, Jones, and I then rode with Peed back to the Homestake-Sapin Partners Mill, the one we passed on the way to Ambrosia Lake, which is about 40 miles from Grants. Here we were met by John K. Gustafson (President of Homestake), Langan Swent (Vice President of Homestake), Milton Ward (General Manager of Homestake), Gordon McMillan (Assistant Manager of Homestake), Jack Q. Jones (Mill Manager) and others. Jones took us on a tour of the mill from beginning to end, explaining each process and he gave us a flow sheet. After the tour we went into a conference room and Swent gave us some information on the radon problem. He said the projected deaths from radon (difficult to estimate because they are just barely detectable above the background rate), about 3 to 5 per year, plus 5 to 10 deaths per year from accidents, lead to an overall death rate per kilowatt-hour of electricity, which is 4 to 20 times less for uranium fuel than for coal fuel.

Actually, Swent said, the money spent on radon hazard prevention would save more lives if spent on prevention of other kinds of accidental deaths in uranium

mining. Swent will send us the statistics that form the basis for these conclusions, which, according to Swent, should be presented to the Federal Radiation Council as an argument to keep the current standards for radon and thus not economically penalize the uranium industry by stricter standards.

Earlier, as we came to the Homestake-Sapin Partners Mill, we were met by Mitch Wells (President of the Grants-West Valencia Chamber of Commerce), Frank McClure (State Senator), and C. G. Gunderson (former Mayor, Grants). Wells presented me with a "Welcome VIP" banner. William Buchecker (Vice President of Mining and Milling, United Nuclear), and Dave Turberville (General Manager, Ambrosia Lake Operations, United Nuclear), were also with us at the Homestake-Sapin Partners Mill.

Schneider, Jones, and I then rode back to the Travelodge in Grants with Peed, arriving about 4:30 p.m.

After changing clothes at the Travelodge we were picked up by McClure, Fitsch, Mr. and Mrs. Love, etc., and we all went to the reception at the home of James B. Barber (Editor of the Grants Daily Beacon). This reception was co-hosted by Stuart Lydick (Mayor of Grants). There was a large group at the reception, including Congressman and Mrs. E. S. Johnny Walker, Mr. and Mrs. John Hornbeck, Mr. and Mrs. Harold Agnew, Mr. and Mrs. R. E. Schreiber, Mr. and Mrs. Love, Lieutenant Governor E. Lee Francis, John Gustafson, and Mr. and Mrs. Gunderson.

At 6:30 p.m. we went on to the Anaconda Recreation Hall for the reception and the dinner honoring the uranium industry. At head table No. 1 sat Father Austin, Tom Fife, E. P. Moe, Jerry Farris, W. A. Buchecker, F. C. Love, E. Lee Francis, A. J. Fitch, Charles Rollins, Senator Clinton Anderson, C. G. Gunderson, Frank McClure (Chairman of the Uranium Tribute Dinner), Congressman Walker, Dr. Gustafson, Mitch Wells, Irving Rapaport, Jack Spencer, James Mallery, Reverend George Brittain and I. At head table No. 2 sat Mrs. Jerry Farris, Dr. R. G. Duncan, Mrs. W. A. Buchecker, Allan Jones, Leland O. Erdahl, Mrs. Fitch, Billy Stevens, Mrs. Robison, Harold (Sam) Donnelly, Mrs. Clinton Anderson, A. Ralph Card, Mrs. Gunderson, L. W. Swent, Mrs. Walker, Ray Morley, Mrs. McClure, Milton Ward, Mrs. Rapaport, D. C. Turberville, Mrs. Wells, Dr. Harold Agnew, Mrs. Swent, R. B. Corbett, Mrs. Spencer, John A. Hornbeck, Mrs. Love, Jack L. Robison, Dr. R. E. Schreiber, and Mrs. Stevens.

After dinner Wells (Chairman of the Grants-West Valencia Chamber of Commerce) presented plaques to about a dozen representatives of uranium companies prominent in the Grants area and to Senator Anderson. Gustafson and Senator Anderson gave response speeches. Gunderson served as Master of Ceremonies and during dinner introduced all the head-table guests and many others. After the presentations by Wells, McClure introduced me and I gave a talk, "The Uranium Age." Following my talk Wells presented me with a magnificent Indian blanket (Chimayo Indian) with an Ojos de Dios made by Frank McClure's daughter.

After the program Schneider and I rode back to Albuquerque with Peed and spent the night on the Sandia Base in the same quarters as last night. We traveled a total of 240 miles during the day and evening.



Sunday, September 1, 1968 - Albuquerque- D.C.

Sam Donnelly picked Schneider and me up at the Sandia Base and we rode with Peed to the airport. We had breakfast at the airport coffee shop.

Schneider and I then caught TWA flight No. 168, which left Albuquerque at 9:40 a.m. and arrived in Baltimore at 4:15 p.m., after a stopover in Chicago.

Steve, Suki, and I took a hike in Rock Creek Park - the usual, on the White Horse Trail, starting at the corner of Oregon and Nebraska Streets to Cross Trail No 2, on the Black Horse Trail, back to Cross Trail No. 3 and No. 4, which we took back to the White Horse Trail, and thence back to our starting point.

Pete had dinner with the family, after which we discussed his plans to start graduate work in history at the University of California, Berkeley. He will fly out, leaving his Falcon here, and buy a car in Berkeley as our graduation present to him.

Monday, September 2, 1968 - Labor Day

I read AEC papers. The family seems to be suffering from some kind of a virus.

I worked on my article, "Evolution of the Periodic System of the Elements from the Time of D. I. Mendeleev," for publication in the Soviet Union, under the auspices of the Soviet Academy of Sciences and the Soviet's Chemistry Society.

I talked to Jeanette by phone. Mom was moved to the Marlinda Nursing Home today. She still is not eating and now complains that her throat hurts when she eats. Her blood count was normal, indicating her radiation treatments aren't the prime cause of her weakness. I raised the possibility of hepatitis caused by the blood transfusions. The most likely explanation of her condition, however, is of course, rapidly spreading cancer.

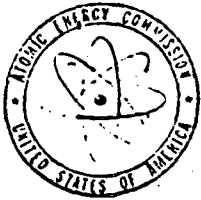
Tuesday, September 3, 1968 - D.C.

At 9:15 a.m. Commissioner Tape, Arnie Fritsch, and I met with Jorgen Koch and H. L. Gjorup, Riso Research Station, Denmark. The meeting was largely a courtesy call in which Dr. Koch expressed appreciation not only for himself but on behalf of his brother, Hans Koch, for the cooperation given by the U.S. in the Thule incident. Following the formalities of the call, the matter of the Thule incident was discussed in some detail and Koch and Gjorup brought us up to date on the most recent findings in and around Thule based on the summer expedition there. Koch left a preliminary report with me on the biological study and a commentary he presented at a health physics meeting in Interlaken. No plutonium was found in the surrounding area where the bomber crashed last January, no plutonium was found in fish, cleanup is complete, and the incident can be considered closed. The Danes are well satisfied with the way it was handled.

I sent a letter to President Johnson, requesting his approval to give the 1968 Fermi Award to John Wheeler (copy of letter attached).

At 10:50 a.m. I presided over Information Meeting 828 (notes attached).

At 11:15 a.m. I presided over Regulatory Information Meeting 310 (notes attached). The Commission requested the proposed reply to Senator Kennedy's letter (copy attached to August 27th Journal) on a request for representatives to attend a seminar on "Nuclear Power and Environment: An Inquiry" - September 11



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

SEP 3 1968

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NOV 85

Dear Mr. President:

I am pleased to inform you that after review of the recommendations of the General Advisory Committee, the Atomic Energy Commission wishes to grant the Enrico Fermi Award for 1968 to Dr. John A. Wheeler. This award would be in recognition of his pioneering contributions to understanding nuclear fission, and to developing the technology of plutonium production reactors, and his continuing broad contributions to nuclear science.

The Enrico Fermi Award is granted under the authorization of the Atomic Energy Act of 1954, Section 157 b(3) and is based on an award to Dr. Enrico Fermi on November 16, 1954, in recognition of his "contributions to the basic neutron physics and the achievement of the controlled nuclear reaction". The Fermi Award was officially established on April 18, 1956, when the Commission determined that the award would be made:

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

Since the establishment of the award in 1956, it has been granted as follows:

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

No awards were granted in 1960, 1965, and 1967. All of the recipients received \$50,000 except Dr. Fermi and Admiral Rickover, who received \$25,000, and Drs. Mahn, Heitner, and Strassmann, who shared equally in \$50,000. In 1964, the Commission determined that within the limitation that the total of all individual awards granted in any one year should not exceed \$50,000, the monetary award to any one individual should be limited to \$25,000 as awarded to Dr. Fermi in 1954.

Accordingly, the Commission recommends that you approve granting the Enrico Fermi Award to Dr. John A. Wheeler, in the amount of \$25,000. We hope that it will be possible for you to participate personally in the Fermi Award presentation ceremony as you have in the past. We will of course keep your office informed as detailed ceremony arrangements are developed.

Biographical data on Dr. Wheeler is enclosed.

Respectfully yours,

Glenn T. Seaborg

Enclosure

The President  
The White House

\_\_\_\_\_  
The President

Approved

\_\_\_\_\_  
Date

## BIOGRAPHICAL DATA

### JOHN ARCHIBALD WHEELER

Professor John Archibald Wheeler was born in Jacksonville, Florida, on July 9, 1911 and received his Ph.D. from Johns Hopkins University in 1933, following which he was a National Research Fellow at New York University and at Copenhagen with Niels Bohr. After teaching at the University of North Carolina for three years he went to Princeton University where he has remained as a Professor of Physics, except for extensive interruptions during, and subsequent to, World War II for important government service.

In 1939, shortly after the discovery of the phenomenon of nuclear fission, Professor Wheeler collaborated with Niels Bohr in writing a paper (Phys. Rev. 56, 426 [1939]) on The Mechanism of Nuclear Fission, that is the cornerstone for all later understanding of the fission process. Among its many other applications, this theory indicated that uranium-235 might be the predominant isotope in fission.

Dr. Wheeler was a key member of the staff of the Metallurgical Laboratory of the University of Chicago from 1942 to 1943 and was then assigned to the duPont Company for the development of the first production reactors. Dr. Wheeler served with great success as consultant, teacher, and guide to the duPont Company in the design and construction of the Hanford reactors. In 1942 Dr. Wheeler first pointed out the possibility that fission products could have a poisoning effect on reactors and repeatedly urged the conservative design of the Hanford reactors which made it possible to overcome the xenon-135 poisoning which appeared so dramatically when the reactors began to operate in 1944.

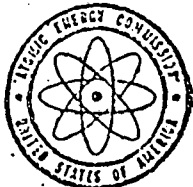
Although his solution of the xenon-135 poisoning problem was particularly conspicuous, his contributions to reactor shielding theory, reactor control, and problems of reactor heating were of comparable importance. After the war, at Los Alamos and at Princeton University, Professor Wheeler made fundamental contributions to the work on thermal fusion, both explosive and controlled.

In addition to his major contributions to the atomic energy program of the United States, Professor Wheeler has been a distinguished teacher, a great research scientist, and a pioneering innovator in many fundamental fields of physics. In 1937 he initiated techniques and calculations

which were later developed into the extensively used scattering matrix theories. Dr. Wheeler collaborated with his graduate student, Richard Feynman, in developing new points of view in potential theory and in elementary particles. In 1946 Dr. Wheeler pioneered in the theory of positronium and later in the theory of mu-mesons and mu-mesic atoms. Dr. Wheeler was among the first scientists to consider the effects of rotational and vibrational degrees of freedom in accounting for low-lying excited states of nuclei. Dr. Wheeler also pioneered in the application of the optical dispersion relations to elementary particle physics - a procedure that provides the basis for much of the current interpretation of high energy elementary particle experiments. Dr. Wheeler has made many basic contributions to the general theory of relativity and to the theory of gravitation, including work on gravitational collapse, geons, and geometrodynamics.

Professor Wheeler is at present the Joseph Henry Professor of Physics at Princeton University.

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

COPY NO. 2  
September 3, 1968

INFORMATION MEETING 828

10:50 a.m., Tuesday, September 3, 1968, Chairman's Conference Room, D. C.

1. August 29 Letter from Phillip Hughes, BoB, re Our Response to BoB Circular A-83 "ADP Management Information System"

Noted. (OC)

2. AEC 988/167 - Proposed Amendment to Mutual Defense Agreement for Cooperation with the United Kingdom

Approved. (AGMIA)

3. AEC 171/76 - ORNL Civil Defense Research Project Funding

Approved. (BM)

4. General Crowson's August 26 Memorandum re Proposed Safeguards Inspection Systems for Enrichment Plants

Approved. (SMM)

5. Dr. Kavanagh's August 28 Memorandum re Special Analytic Study on Advanced Converters

Discussed. Staff will obtain additional comments from the Commissioners.  
(SECY-AGMR)

6. General Manager's Report on His Meeting with Dr. Thomas Paine, NASA, re Snap 8 and Other Programs
7. Executive Session Item

W. B. McCool  
Secretary

11:25 a. m.

PRESENT:

COMMISSIONERS:

Chairman Seaborg  
Commissioner Tape  
Commissioner Johnson

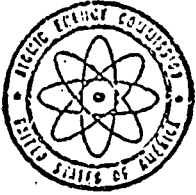
STAFF:

Mr. Hollingsworth  
Mr. Bloch  
Mr. Brown  
Mr. Hennessey  
Mr. Abbadessa  
Mr. Kull  
Dr. Fritsch  
Mr. Ryan  
Mr. McCool  
Dr. Totter\*  
Mr. Deal\*  
Gen. Crowson\*  
Dr. Kavanagh\*

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Commissioners  
General Manager  
General Counsel  
Secretary

\*Attendance by Topic (s)



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

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NOV 86

REGULATORY INFORMATION MEETING 310

11:25 a.m., Tuesday, September 3, 1968, Chairman's Conference Room, D. C.

1. Senator Kennedy's August 27 Letter re Request to Attend Seminar on "Nuclear Power and Environment: An Inquiry" - September 11 and 12, 1968

The proposed reply is to be revised and reviewed with the Commissioners.  
(DR)

2. Meeting of Commissioners Ramey and Johnson with Dr. Zabel, Chairman, ACRS

To be scheduled for Thursday, September 5. Commissioner Ramey said in his last meeting with Dr. Zabel it had been agreed that it would be helpful to develop an agenda for the AEC-ACRS meetings. (SECY)

3. Mr. Price's August 12 Memorandum re July, 1968 Study on Industrial Sabotage by Southern Nuclear Engineering, Inc.

Mr. Price plans to transmit the report to the JCAE and ACRS subject to any comments from the Commissioners. (ADRA-SECY)

W. B. McCool  
Secretary

PRESENT:

11:50 a.m.

COMMISSIONERS:

Chairman Seaborg  
Commissioner Ramey  
Commissioner Tape  
Commissioner Johnson

STAFF:

Mr. Price  
Mr. Hennessey  
Dr. Fritsch  
Mr. Ryan  
Mr. Wells  
Mr. McCool

DISTRIBUTION:

Commissioners  
Dir/Regulation  
General Manager  
General Counsel  
Secretary



and 12, 1968, be revised and reviewed with the Commissioners. At Commission Meeting 2339 on September 5, 1968, the Commission approved, with a revision, the letter to Senator Kennedy. I signed the letter on September 5, 1968 (attached to September 5, 1968, Journal).

At 12:30 p.m. I hosted a luncheon for Vikram A. Sarabhai (Chairman, Indian AEC). Present were Ambassador N. A. Y. Jung (Indian Ambassador to the U.S.), Ambassador Sarukkai Jaganathan (World Bank), D. Q. Zook (Department of State), Commissioners and staff. We discussed the NPT and found Sarabhai still negative in his attitude. We also discussed the Nuplex concept for India which Sarabhai believes has good prospects.

At 2:45 p.m. I presided over Commission Meeting 2336 (action summary attached).

At 5:30 p.m. I received a telephone call from Matt Coffey (White House). He said that President Johnson just sent word back from his Texas ranch that Ned Breathitt (Edward T. Breathitt, former Governor of Kentucky) would be acceptable for appointment as federal representative to the Southern Interstate Nuclear Board to succeed Nat Welch. Coffey asked that I contact Breathitt and invite him to serve, and then let Coffey's secretary know so that they could move forward with the appointment procedure. Coffey is leaving this evening and will not be back in his office until September 9th, but he said his secretary would know what action to take.

Steve, Suki, and I took a hike in Rock Creek Park.

#### Wednesday, September 4, 1968 - D.C.

At 10 a.m. I presided over Commission Meeting 2337 (action summary attached). The Commissioners worked with staff on the FY 1970 budget. The BOB has given us an almost impossible target of \$2.4 billion. The General Manager's recommended budget, after trimming division directors' requests, is \$2.88 billion. The difference must be set up in three priority bands.

At 12:30 p.m. I had lunch with Julie Rubin and Arnie Fritsch at the Pot O' Gold restaurant, followed by a walk in Lafayette Park.

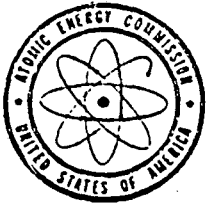
At 2:45 p.m. I presided over Commission Meeting 2338 (action summary attached).

At 8 p.m. Helen and I went to a dinner at the Danish Embassy given by Ambassador and Mrs. Roenne for Dr. and Mrs. Jorgen Koch and Dr. H. L. Gjorup. The Carl Walskes and the George S. Springsteens (Deputy Assistant Secretary of State, Bureau of European Affairs) were among those present. Ambassador Roenne gave a short talk at the beginning of dinner and I responded at the end of dinner, both of us emphasizing the fine way we resolved the Thule matter and expressing hope for continued Danish-U.S. cooperation.

#### Thursday, September 5, 1968 - D.C.

At 10 a.m. I presided over Commission Meeting 2339 (action summary attached). We continued to work on the FY 1970 budget. I called Charles Zwick to express strong objection to its stringency. He said President Johnson wants to maintain the option of nonrenewal of a tax increase on June 30, 1969.

I talked by telephone to Dan T. Moore, Director General of the International Platform Association. Dan wants to run my picture (which was later published as caricature of me) on the cover of Talent magazine and include an article by me. I



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

ENCL. BY DOE  
NOV 86

September 4, 1968

Approved \_\_\_\_\_

R. E. H.

Date \_\_\_\_\_

R. E. Hollingsworth, General Manager

ACTION SUMMARY OF MEETING 2336, TUESDAY, SEPTEMBER 3, 1968, 2:40 P.M.,  
ROOM 1115, D. C. OFFICE

SECY: EGE

Commission Business

1. Executive Session Item
2. AEC 649/56 - Contract for Operation of Shippingport Atomic Power Station  
Approved. (DC)

3. AEC 890/138 - Five-Year Fuel Inventory for Overseas Reactors  
Approved, as revised.

The Commission requested the commitment on fuel inventory for overseas reactors not necessarily be limited to five years. (IA)

4. AEC 1265/1 - Implementation of the Requirements of the Public Information Act  
The Commission approved issuance of the Federal Register Notice with revisions. Internal criteria for public access to staff level documents is to be scheduled for further consideration. (GC-SECY)

5. AEC 881/108 - Special Analytic Study No. 68-1 - Multiple Fuels Processing Program  
Approved. (P)

6. AEC 574/14 - Special Analytical Study No. 68-2 - Oralloy Utilization Scope and Issues  
Approved. (P)

September 4, 1968

7. AEC 213/135 - SAS 68-3, Domestic Programs for Safeguards (See also AEC 312/136 - Appendix "G" to SAS 68-3)

Approved. (OSMM)

8. AEC 1000/127 - Special Analytical Study No. 68-5 - Space Power Program Plans

Approved, as revised.

The Commission requested the letter to the BOB be revised in light of recent discussions with NASA. (SNS)

9. AEC 267/99 - Grants of Used Unclassified Nuclear Type Equipment to Colleges and Universities in the U.S.

Approved.

The Commission requested a report on the possibility of equipment loans under research contracts to institutions abroad. (NET)

10. AEC 588/61 - LMFBR Demonstration Plant Project

Discussed.

The Commission requested staff develop a "Request for Proposals". (RDT)

11. AEC 194/69 - Contract for the Feed Materials Production Center at Fernald, Ohio

Approved.

Commissioner Ramey requested information on whether other companies had been considered for this contract. (DC)

12. AEC 132/139 - Report of the Division of Inspection (See also AEC 25/395 - AEC Atomic Weapon Safety Program Testing Activities, and AEC 25/396 - Comments on Paragraph Two, Atomic Weapon Test Safety Program. of AEC 132/139 - Report of the Division of Inspection)

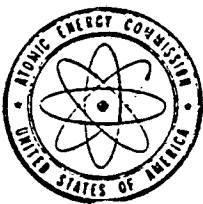
Discussed.

13. General Manager's Oral Report on Discussions with BOB

14. Personnel Item (SECY)

Original signed  
W. B. McCool;  
W. B. McCool  
Secretary

cc:  
Commissioners



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

UNCL. BY OADR  
NOV

September 4, 1968

R. E. Hollingsworth, General Manager

Approved \_\_\_\_\_  
R.E.H.

Date \_\_\_\_\_

ACTION SUMMARY OF MEETING 2337, WEDNESDAY, SEPTEMBER 4, 1968, 10:00 A.M.,  
ROOM 1115, D. C. OFFICE

SECY:MJD

Commission Business

1. AEC 1283/13 - Statistical Tables for FY 1970 Budget Estimates (See also  
AEC 1283/12, 1283/14, 1283/15, 1283/16, 1283/17, & 1283/18)

Discussed.

The Commission requested:

- (a) Commissioner Ramey meet with Mr. Wilhelm, staff director of House Appropriations Committee, to discuss funding for Resource Investigation. Commissioner Ramey is to be provided appropriate background material on AEC and USGS levels of effort. (AGMP&P/RM)
- (b) explanation of increase in costs in FY 1970 over FY 1969 for Reactor Products. (AGMP&P/P)
- (c) a comparison of the breakout on the Division Request (\$32.7M) and the GM Budget (\$27.7M) for SNM - Process Development. (AGMP&P/P)
- (d) additional information on funding and number of machines required in the ETF. (AGMP&P/P)
- (e) clarification of the R&D funding level for the CIP. (AGMP&P/P)
- (f) identification of major procurements in the FBR program. (AGMR/RDT)
- (g) clarification of increase in funding from FY 1968 to FY 1970 in Other Fast Breeder Reactor Systems. (AGMR/RDT)
- (h) additional information on component development for the FBR. (AGMR/RDT)
- (i) circulation of the Oak Ridge MSBR program plan. (AGMR/RDT)

R. E. Hollingsworth  
Action Summary 2337

-2-

September 4, 1968

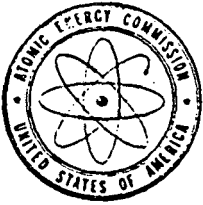
- (j) alternatives for phase-out, if necessary, of the SNAP-8 program. (AGMR/RDT)
  - (k) a programmatic breakdown of the General Reactor Technology program. (AGMR/RDT)
  - (l) funding alternatives for the MTR in the BOB Target. (AGMR/RDT)
2. Letter to BOB Providing AEC Comments On a Bill to Amend The Federal Metal and Nonmetallic Mine Safety Act of September 16, 1966 (80 Stat. 772)

Discussed.

*Original signed  
W. B. McCool*

W. B. McCool  
Secretary

cc:  
Chairman Seaborg  
Commissioner Ramey  
Commissioner Tape  
Commissioner Johnson



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

September 5, 1968

ENCL. BY DOE  
NOV 86

Approved \_\_\_\_\_  
R.E.H.

Date \_\_\_\_\_

R. E. Hollingsworth, General Manager

ACTION SUMMARY OF MEETING 2338, WEDNESDAY, SEPTEMBER 4, 1968, 2:45 P.M.,  
ROOM 1115, D. C. OFFICE

SECY:EGE

Commission Business

1. Letter to BOB Providing AEC Comments on a Bill to Amend the Federal Metal and Nonmetallic Mine Safety Act of September 16, 1966 (80 Stat. 772)

Approved. (GC)

2. AEC 1283/13 - Statistical Tables for FY 1970 Budget Estimates (See also AEC 1283/12, 1283/14, 1283/15, 1283/15, 1283/16, 1283/17, & 1283/18)

Discussed.

The Commission requested:

- (a) staff elaborate on the Naval Propulsion Reactors construction program for modifications and alterations to the Expended Core Facility; (NR)
- (b) more information on the proposed liquid sodium program at PNL and its relationship to the liquid sodium program at other locations; (RDT)
- (c) information on the effect of a stringent budget upon modification of EBR-II and related facilities; (RDT)
- (d) consideration of maintaining the General Manager's recommended level of funding for accelerator improvements construction projects in the BOB target case; (R)
- (e) additional information on the Biology & Medicine construction project for Alpha-Emitter exposure and dog kennel facilities; (BM)
- (f) staff propose action to obtain BOB and Congressional clearance to fund the Isotope Circulatory Support System engine development program in FY 1969; (ID)

R. E. Hollingsworth  
Action Summary 2338

-2-

September 5, 1968

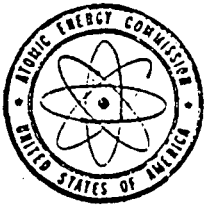
- (g) additional information on the effect of ceiling levels and hiring procedures on AEC commitments to incoming personnel in FY 1969; (PER)
- (h) staff investigate possible additional revenues to be obtained from toll enriching contracts; (P)
- (i) Plowshare staff discussion on the need for the Physics Measurement Building at Livermore; (R)
- (j) staff explore the possibilities of implementing Case I (as proposed in AEC 1283/18) and provide the Commission with a draft "invitation soliciting industry proposals; (RM)
- (k) staff prepare a letter, for early Commission consideration, to the Department of Interior to obtain their views on a joint AEC-Interior Resource Investigation program. (RM)

Original signed  
W. B. McCool

W. B. McCool  
Secretary

cc:

Chairman Seaborg  
Commissioner Ramey  
Commissioner Tape  
Commissioner Johnson



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

September 5, 1968

Approved \_\_\_\_\_  
R.E.H.

Date \_\_\_\_\_

R. E. Hollingsworth, General Manager

ACTION SUMMARY OF MEETING 2339, THURSDAY, SEPTEMBER 5, 1968, 10:00 A.M.,  
ROOM 1115, D. C. OFFICE

SECY:EGE

Executive Session

1. Proposed Response to Senator Edward M. Kennedy's August 27 Letter  
Regarding the Seminar on "Nuclear Power and Environment: An Inquiry"

Approved with a change. (FRITSCH) Reply to Kennedy dated 9/5/68  
signed by Chairman is attached

2. Funding of the 200 BEV

Discussed.

The Commission requested preparation of a letter to the BOB. (OC)

Commission Business

AEC 1283/13 - Statistical Tables for FY 1970 Budget Estimates (See also  
AEC 1283/12, 1283/14, 1283/15, 1283/16, 1283/17 & 1283/18)

Discussed.

The Commission requested staff development of a case for alternating  
operation of two Savannah River Reactors. (P)

Original signed  
W. B. McCool  
W. B. McCool  
Secretary

cc:  
Chairman Seaberg  
Commissioner Ramey  
Commissioner Tape  
Commissioner Johnson



(Reference - Regulatory Information  
Meeting 31.0 - 9/3/68)

UNCL. BY DOE  
NOV 83

September 5, 1968

Honorable Edward M. Kennedy  
United States Senate

Dear Senator Kennedy:

Thank you for your letter of August 27, 1968, regarding the scheduling by the Conservation Society of Southern Vermont of a seminar on "Nuclear Power and Environment: An Inquiry" for September 11 and 12.

Insofar as direct participation by our staff in this meeting is concerned, we have made it a general practice not to have them participate in public meetings of this type which may involve debate and protest on the merits of particular projects that are the subject of pending AEC proceedings. After a public hearing in Vermont, the AEC issued a construction permit for the Vermont Yankee plant, which we presume to be one of the major reasons for the September meeting. There will be a continued public hearing on some unresolved aspects of the Vermont Yankee proceeding; those aspects will be considered by the Commission and there remains, of course, for future consideration the issuance of an operating license for the plant. In addition, some issues in the Vermont Yankee proceeding are now being litigated in the Federal courts.

Direct participation by the AEC staff under these circumstances might be misconstrued by the public as compromising the objectivity of our quasi-judicial process.

As I told Mr. Strong in a recent telephone conversation, however, we would be happy to furnish appropriate assistance to the Society in planning a future balanced program which would consider broad issues not directed at any particular project and in suggesting qualified speakers, if we are given sufficient prior notice.

I appreciate your interest in this matter.

Cordially,

RETYPE IN CHAIRMAN'S OFFICE 9/5/68 ARF:ncm

Glenn T. Seaborg

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sent him one on the value of public speakers in increasing communications in today's society. (The article, "The Public Speaker Today," was published in the November 1968 issue of Talent.)

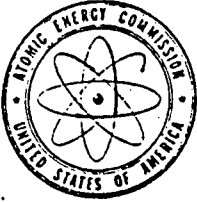
At 12:30 p.m. I received a telephone call from Pat Tucker of Time magazine, Washington, D.C. She said she would like to know a little about my trip to Grants, New Mexico. Was I ever in a uranium mine before? I said this was my first visit; however, the primary objective of my trip was to talk at a dinner honoring the uranium industry, given by the Grants and West Valencia County Chamber of Commerce. She said she knew this, and that she had a copy of my speech, although she had not yet read it. She asked whether I had requested to visit a uranium mine; I replied that they had invited me to visit some mines and mills. I said I actually visited Anaconda's open pit mine, called the Jackpile mine and also the Paguete mine. Then I visited the Kerr-McGee mine and mill, in the Ambrosia Lake region, where I actually went down a shaft into a mine about 800 feet underground, and then walked about 1500 feet into the mine where I saw the uranium mining operation. She said that what intrigues her is that I am the top figure in the atomic energy program and this is my first visit to a uranium mine; she wondered what was my impression. Was it a big thrill? Had I always wanted to see a uranium mine? I said I definitely didn't feel that my experience was complete until I saw that part of the operation; however, the mines are a little out of the way, in the back country, and it was never opportune to visit one.

I said I'm very familiar with the mining and milling process, and have seen other mills, but have never been down in a mine. I explained that I was born in the iron mining country of Northern Michigan. I explained to her a little of the milling process to obtain concentrated uranium - yellow cake. She asked how long I had been working with uranium. Since high school chemistry? I said, practically. I was one of the co-discoverers of plutonium, which is manufactured from uranium. Fission was discovered by Hahn and Strassmann in 1938, while I was working at the Radiation Laboratory of the University of California, Berkeley. She asked whether my first contact with science was in high school. I said it was; I had no interest in it before that; in fact, I really didn't know what chemistry was. I had a high school teacher who created and stimulated the interest in me; then I continued with chemistry in college and in post-graduate work. She said that Edward Slawson's book, Creative Chemistry, made a tremendous impression on her; this was about the most popular book in chemistry. I asked whether she had studied chemistry, and she said she majored in it at Tulane. (The article, with a picture of me in a mine, captioned, "Fixing a Fissure," was published in the September 13, 1968, issue of Time.)

At 12:40 p.m. I had lunch at the Pot O' Gold restaurant with Arnie Fritsch, Julie Rubin, Stan Schneider and James Threikeld, followed by a walk in Lafayette Park.

At 2 p.m. I received a telephone call from Dixy Lee Ray, Pacific Science Center. She said that October 22nd, 24th and 31st were not good for the Arches of Science Award Banquet (some, or all, of these dates were bad for Edward E. Carlson, President of the Western International Hotels, and Chairman of the Board of Trustees of the Pacific Science Center Foundation, and he wished to be present). She inquired whether the previous week - October 15th, 16th or 17th would be possible for me. I explained that I had to be in Dayton on October 18th, but that the 16th would be fine. She agreed that October 16th would be satisfactory. She said they would like to have me meet with a group of college students on the morning of October 17th. I said that might be possible if I could arrange to leave Seattle around noon on a non-stop flight.

At 2:45 p.m. I presided over Commission Meeting 2340 (action summary attached).



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

September 6, 1968

Approved \_\_\_\_\_  
R. E. H.

Date \_\_\_\_\_

R. E. Hollingsworth, General Manager

ACTION SUMMARY OF MEETING 2340, THURSDAY, SEPTEMBER 5, 1968, 2:40 P.M.,  
ROOM 1115, D. C. OFFICE

SECY:MJD

Commission Business

1. AEC 580/288 - 1968 Materials Planning Estimate

To be scheduled, Monday, September 9, 1968. (SECY)

2. AEC 1283/13 - Statistical Tables for FY 1970 Budget Estimates (See also  
AEC 1283/12, 1283/14, 1283/15, 1283/16, 1283/17 & 1283/18)

Discussed.

The Commission requested scheduling of AEC 1284/1, AEC 1219/18, AEC 695/50  
and AEC 610/127 for Commission consideration in October. (SECY)

The Commission tentatively approved:

- a. a \$3.5 million addition to the GM budget case. The increase is to be apportioned among the plant test program for the CUP (\$1.5M), and for Process Development operating expenses in Cf-252 (\$1.0M) and U-235 (\$1.0M); and
- b. a \$.350 million addition to the GM budget for SNMM operating expenses. (OC)

The Commission also requested:

- a. the ETF funding level be noted for further consideration; (OC/P)
- b. the On-Continent Test Program funding level be noted for further consideration; (OC/AGMA)
- c. additional information on the impact of 1-shift vs 2-shift operation of the weapons production complex. (AGMA)

Executive Session Item

Original signed  
W. B. McCool

W. B. McCool

SECRETARY

cc:

At 5 p.m. I met with Vikram A. Sarabhai, Kuldip Sahdev (Second Secretary [Economic], Indian Embassy), and Jim Ramey, Myron Kratzer, Allan Dalton, U. M. Staebler, and Bob Ritzmann to summarize the results of the talks with Sarabhai. Sarabhai believes the agro-industrial nuclear complex has a great future in India. He complained about Indian inspectors being ruled out by the U.S. as IAEA inspectors at the NFS plant (on the basis that India might advance her nuclear weapons capability) and said India favors a strong role of the IAEA in the safeguards function.

Friday, September 6, 1968 - D.C.

Jeanette called at 8 a.m. to tell me that Mom passed away in her sleep at the Marlinda Nursing Home about 4:40 a.m. (PDT) this morning. When Jeanette visited her last night she asked Jeanette to massage her arms and legs and said, when Jeanette said she would come by to visit her tomorrow evening, that she wouldn't live through another night. (This, incidentally, is Lynne's birthday.) The funeral is set for noon on Monday, September 9th. She will be at the Biby and Belyear mortuary on California Avenue, South Gate, which is the same place where Pa was. She will be buried in Inglewood next to Pa. We notified our relatives in Sweden, Ishpeming, etc.

At 9:30 a.m. I presided over Executive Session (Adjudicatory) 176 (action summary attached).

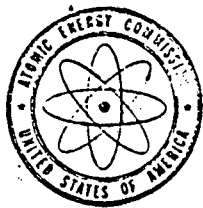
At 9:40 a.m. I presided over Information Meeting 829 (notes attached).

I received a telephone call from James Falcon, White House, at 10:20 a.m. He told me that due to the press of other business Adrian Fisher will not be able to be an alternate to the IAEA Conference. Bill Foster is also unavailable, so the State Department is proposing Herbert Scoville as a substitute. He said he would try to get to the President with this today and asked if we would have any problems with this choice. I told him I wasn't sure that all the Commissioners would be enthusiastic because they would like a higher level appointment, but that I have no objection and he could say it has my support.

I called Edward Breathitt, Hopkinsville, Kentucky, at 11:15 a.m. and told him the President would like to appoint him as the Federal Representative to the Southern Interstate Nuclear Board and asked him if he would be interested in accepting the appointment. He said he would like to serve in this capacity but the fact that he is Special Counsel to the Ashland Oil and Refining Company and the Southern Railway System might constitute a conflict of interest. I said we would look into this and would not contact any SINB members until it was settled. I told him my Assistant would be handling this matter since I have to be out of town for a few days.

I received a telephone call from Professor Robert Marshak (University of Rochester) at 11:20 a.m. He has been asked by the trustees of Atoms for Peace for a list of younger man (not much over age 50) for multiple Atoms for Peace awards. In addition to scientists in straight nuclear physics, he would like to include some in radiation biology, chemistry, etc. He feels that chemists have not received their proportionate share of recognition, as compared to physicists. He said he would like to come to Washington to get my ideas, and we agreed that Thursday, September 12th, would be a good date. He will write and let me know his travel plans (he will arrange to come to the office directly from the airport). He said I should feel free to include some of my colleagues in on the discussion.

At 11:25 a.m. I presided over Commission Meeting 2341 (action summary attached).



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

September 6, 1968

File

ACTION SUMMARY OF EXECUTIVE SESSION (ADJUDICATORY) 176, FRIDAY, SEPTEMBER 6, 1968, 9:25 A.M., CHAIRMAN'S CONFERENCE ROOM, D. C. OFFICE

SECY:WLW

1. Wisconsin Electric Power Company and Wisconsin-Michigan Power Company (Point Beach Nuclear Plant Unit No. 2) Docket No. 50-301

The Commission agreed to permit the initial decision to become final on September 9, 1968. (SECY)

2. Tennessee Valley Authority (Browns Ferry Nuclear Power Station Unit No. 3)

The Commission agreed to permit the initial decision to become final on September 13, 1968. (SECY)

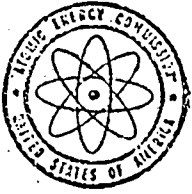
3. Philadelphia Electric Company (Peach Bottom Atomic Power Station Units 2 and 3) Docket Nos. 50-277 and 50-278

The Commission approved, as revised, the Memorandum and Order, dated September 6, 1968.

The Commission requested the Memorandum and Order be reviewed with Commissioner Ramey prior to issuance. (SECY/Solicitor)

Original signed  
W. B. McCool  
W. B. McCool  
Secretary

cc:  
Chairman Seaborg  
Commissioner Ramey  
Commissioner Tape  
Commissioner Johnson  
General Counsel  
Solicitor



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

COPY NO. 3  
September 6, 1968

INFORMATION MEETING 829

9:40 a.m., Friday, September 6, 1968, Chairman's Conference Room, D. C.

1. Proposed Letter to Bureau of Budget re FY 1970 Budget Estimates  
Not to be sent. (OC)
2. Agenda for the Week of September 9, 1968  
Revised. (SECY)
3. NTS Events (See General Giller's September 5 Memorandum)  
Noted. (AGMMA)
4. Appointment of ACRS Consultant  
Approved. (SECY)
5. Official Commission Photograph  
To be scheduled. (SECY)
6. Commissioners' Meeting with Sir Charles Cunningham, Deputy Chairman, UKAEA, 11:15 a.m., September 10, 1968 (See Mr. Kratzer's September 4 Memorandum)  
Noted. (SECY; -AGMIA)

7. Commissioners' Meeting with AEC Interns, 1:30 p.m., September 6, 1968

Noted. (SECY)

8. Topics for Commissioners' September 17 Meeting with the AIF (See Mr. Tremmel's August 13, August 16, and August 23 Memoranda)

A revised meeting schedule is requested. (IP-SECY)

9. AEC 549/27 - Production Reactor Declassification Action

An alternative letter is requested. (EAGM)

10. AEC 1123/9 - Revised Draft Letter to Senator Cannon Concerning Las Vegas Industrial Diversification

Approved with changes. (DC)

11. Mr. John Macy's, Chairman, Civil Service Commission, Call to the Chairman re IAEA Delegate

Noted. (AGMIA)

12. AEC 89/112 - Proposed Assignment of French National to Princeton University

Approved. Corrective language re AEC funds is requested. (AGMIA)

13. Pending Contractual Matters Report No. 273

Information on the following is requested:

a. Contract AT(04-3)-167

b. Contract AT(45-1)-1780

c. Publication and marketing of Volume II of the AEC History

d. Aerojet-General contract for Technical support to PNL  
(DC)

14. Mr. Shaw's August 30 Memorandum re Issuance of LMFBR Program Plan

Noted with a change. (RDT)

15. JCAE Staff Request to Review Volume II of the AEC History

Noted. (AGM-SECY)

16. Bolsa Island Project

Commissioner Ramey requested a report by Friday, September 13. (RDT)

17. Governor Paul Laxalt's August 14 Letter re AEC Representation at Natural Resources Council

Mr. Reeves may be designated as the AEC representative. (AGMMA)

W. B. McCool  
Secretary

PRESENT:

11:05 a.m.

COMMISSIONERS:

Chairman Seaborg  
Commissioner Ramey  
Commissioner Tape  
Commissioner Johnson

STAFF:

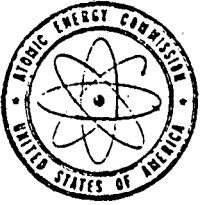
Mr. Hollingsworth  
Mr. Brown  
Mr. Abbadessa  
Mr. Ferguson  
Mr. Kull  
Dr. Fritsch  
Mr. McCool  
Mr. Vinciguerra\*  
Mr. Marshall\*  
Mr. Smith\*  
Mr. Kratzer\*  
Dr. Kavanagh\*  
Mr. Shaw\*  
Mr. Harris\*

DISTRIBUTION:

Commissioners  
General Manager  
General Counsel  
Secretary

\*Attendance by Topic (s)





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

ENCL. BY DOR  
NOV 86

September 6, 1968

Approved \_\_\_\_\_  
R. E. H.

Date \_\_\_\_\_

R. E. Hollingsworth, General Manager

ACTION SUMMARY OF MEETING 2341, FRIDAY, SEPTEMBER 6, 1968, 11:15 A.M.,  
ROOM 1115, D. C. OFFICE

SECY:MJD

Commission Business

AEC 1283/13 - Statistical Tables for FY 1970 Budget Estimates (See also  
AEC 1283/12, 1283/14, 1283/15, 1283/16, 1283/17 & 1283/18)

Discussed.

The Commission tentatively approved:

- a. a \$0.5 million increase to the GM budget for Rover operating expenses; and
- b. the addition of the zirconium hydride reactor (SNAP-8) to the BOB Target and the deletion of Pu-210 space generator development from the BOB Target. (OC)

The Commission requested:

- a. budget option alternatives and impact statements related to a \$10 million reduction in LMFBR operating expenses; and
- b. a comparative analysis of MSBR project operations under the GM budget and BOB Target. (RDT)

The Commission noted for further consideration:

- a. a \$3.0 million increase to the BOB Target for MSBR operating expenses;
- b. the addition of a \$2.5 million construction line item for MSBR facility A-E costs;
- c. funding alternatives for the MTR in the BOB Target; and
- d. Euratom operating expenses. (OC)

Original signed  
W. B. McCool  
Secretary

cc:  
Comm:

217

The Commissioners worked with the staff on the FY 1970 budget. We had lunch brought in and worked through our lunch hour.

At 1:30 p.m. I spoke to about 60 AEC Interns, who are in Washington for an orientation session (list attached). They have been on the job about a year. Commissioners Ramey, Tape, and Johnson, Bob Hollingsworth, and other staff members also met with them.

At 2:45 p.m. I presided over Commission Meeting 2342 (action summary attached).

Lynne and Bill, and Lynne's friend, Susy Goldstein (a student at Berkeley), arrived this afternoon. Lynne and Bill had been visiting with Bill's mother in De Witt, Iowa. Thus, our entire family had dinner together, including Pete - a sort of birthday dinner for Lynne. During dinner we gave Lynne a check for \$2,100 for her 21 years, to cover her tuition at Radcliffe this coming year.

I am flying to Los Angeles for the funeral and to help Jeanette make the necessary arrangements tomorrow.

David worked at the Smithsonian with Dr. Peters, the herpetologist, as he has been doing all week.

Saturday, September 7, 1968 - D.C. - Los Angeles, California

I flew to Los Angeles on United flight No. 59, which left Dulles Airport at 1 p.m. and arrived in Los Angeles about 3:10 p.m. I had planned to fly on American flight no. 45, which was due to leave Dulles Airport at noon, but when I got there, it was delayed so I shifted to the United flight. As a result of difficulties in communications and the fact that no one was at home in Washington for me to communicate with, I didn't know the status of notifying Jeanette of my changed plans. I missed connections at the airport with Jeanette and Ray who were a little late in meeting me. After more phone calls to Washington I connected after Helen, et al., arrived home and we finally straightened it out, but not until I wandered around the airport for about an hour and a half before finding Jeanette and Ray.

Jeanette, Ray and I then visited the Inglewood Cemetery to see Mom's grave site, which had already been prepared, next to Pa's grave. We then visited the Biby and Belyea mortuary (8665 California Avenue, South Gate) where we saw Mom who had been prepared for burial. She looked very nice.

We then went to the Jubilee Motor Inn in Lynwood where I checked into room 406. I called Helen again to tell her I had finally connected with Jeanette and Ray. We had dinner in the Jubilee coffee shop. We discussed the disposition of the various items in Mom's home, 9237 San Antonio Avenue. Jeanette will go through everything and then get in touch with us; she will probably store a number of items in her house and leave others in Mom's house. She will send us early letters that Helen and I wrote to Mom and Pa. I offered to buy her half of the house but Jeanette wants to keep it in joint ownership for a while before deciding. We will try to rent it, possibly to the Olsons when they come to Los Angeles for the winter. Ruth Ryan is still living in it.

After dinner we visited 9237 San Antonio Avenue and went through Mom's letters which were in the desk in the living room. We found a number of interesting ones, mainly that Helen wrote to Mom from 5418 Woodlawn Avenue, Chicago; 2808 Ellsworth Street, Berkeley; 1154 Glen Road, Lafayette; and 3825 Harrison Street, Washington, D.C. I took these to take back to Washington, D.C., as well as some early UCLA and Berkeley correspondence.

ROSTER OF INTERNS ATTENDING HEADQUARTERS ORIENTATION  
SEPTEMBER 4-6, 1968

<u>FIELD</u> Name	Office Assigned	Degree & Major	College	Headquarters Contact
<u>LEGAL</u>				
Brame, Frank A., III	AL	LLB/Eng	U. of Colo	E. Ferguson, OGC
Haag, John D.	CH	DJ/Law	U. of Wis	E. Ferguson, OGC
Herd, Harvey T.	AL	LLB/Law	Texas U	E. Ferguson, OGC
Randall, James E.	AL	JD/Mech Eng	Ind U	E. Ferguson, OGC
<u>PATENT</u>				
Glenn, Hugh W., Jr.	AL	DJ/Chem Eng	U. of Fla	John Horan, Patents
<u>ACCOUNTING</u>				
Beutler, Jerri J.	GJ	BA/Acctg	Denver U	OC
Bisnett, Thomas A.	SCH	BA/Acctg	Siena	OC
Fleenor, Gerald K., Jr	AL	BBA/Acctg	New Mexico U	W. Campbell, OC
Garr, Marshall C.	AL	MBA/Acctg	Utah U	W. Campbell, OC
Gherardi, Ronald D.	NY	BS/Acctg	Fordham	OC
Hyde, Dee A.	NV	MBA/Acctg	Utah U	T. Kirkham, OC
Lott, Billy W.	CH	BS/Acctg	Southn Miss	OC
Murphy, John P.	NV	BA/Acctg	Cal State	T. Kirkham, OC
Smith, Herman L., II	AL	BS/Acctg	Arizona U	W. Campbell, OC
Wicks, Melvin J.	RL	BA/Acctg	Gonzaga U	OC
Zajic, Charles J., Jr.	AL	BS/Acctg	Arizona St.	W. Campbell, OC
Zelenka, Richard A.	AL	BS/Acctg	Arizona U.	L. Groover, DMA
<u>MANAGEMENT</u>				
→ Alderson, John L., Jr.	SAN	MBA/Ind. Rel	Berkeley	G. Barrow, HQS
Behnke, Donald L.	AL	MBA/Bus Adm	Arizona U.	V. Corso, OC
Desmond, William, Jr.	SR	MS/Soc	Fla State	E. Lane, Security

FIELD

Name	Office Assigned	Degree & Major	College	Headquarters Contact
Dinitz, Ira P.	NY	MA/Pol Sci	Syracuse	Research
Downey, William H.	OR	MS/Journ	Columbia	E. Stokely, PI
Jeffrey, William G.	ID	MS/Econ	Wash State	DLR
Larsen, Robert J.	AL	MBA/Bus Adm	New Mex U	V. Corso, OC
Ledbetter, John S.	NV	MBA/Per	Oregon U.	W. Rasmussen, Contracts
Lombardo, David D.	NY	MA/Pol Sci	New York U	M. Jones, DLR
Parodi, Roger V.	SAN	MA/Fin	Oregon U	A. Postow, Contracts
Rutter, Arthur L.	ID	MS/Acctg	Montana St	W. Campbell, OC
Schlaht, John F.	RL	MBA/Bus	Montana St	EI&C
Schryer, Curtis E.	CH	MBA/Bus Adm	S Dak U	Personnel
Stannish, Simon K.	AL	MBA/Bus Adm	Arizona U	L. Groover, DMA
Tiritilli, Anthony R.	NV	MS/Pub Adm	S Cal U	R. Wainwright, DMA
Truex, William A.	NV	MS/Bus Adm	S. Diego St	SNPO-HQ

TECHNICAL

Dees, Dan M.	OR	MA/Chem	Fisk	C. Chezem, SMM
DePlanque, Gail E.	NY	AB/Physics	Immaculata	DBM
Elle, Donald R.	RL	MS/Rad Physics	Oregon State	OS
Fairchild, Phillip D.	SR	MS/Mech Eng	La Poly	W. Belter, RDT
Kingsbury, Robert J.	AL	MS/Civil Eng	Arizona St.	Construction
Kinser, William H., Jr.	OR	MA/Physics	E Tenn St	J. Ratton, DTI
LaFond, John W.	OR	MBA/Chem	Missouri U	J. Behrand, Prod
Lampley, James R.	OR	BE/Civil Eng	Vanderbilt	G. Merkle, Construction
Price, Don L.	NV	BS/Civil Eng	Cal State	C. York, Construction
Reafsnyder, James A.	OR	MBA/Chem Eng	Missouri U	F. Greene, Prod
Rogers, Stuart V.	AL	BS/Egn-Math	Arizona U	J. Powers, SNS

FIELD

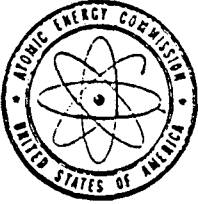
<u>Name</u>	<u>Office Assigned</u>	<u>Degree &amp; Major</u>	<u>College</u>	<u>Headquarters Contact</u>
Scheiderer, Edwin L.	SR	BS/Chem Eng	Ohio U	S. Tatalovict DIA
Simmons, Hezekiah N.	OR	BS/Chem	J. Smith U	C. Chezem, SMM
Templeton, David W.	RL	MS/Physics	Oregon U	Production
Themelis, John G.	NV	BS/Indl Tech	Cal State	C. York, Construction
Thomas, Walter V.	CH	MS/Rad Biology	Rochester U	OS

ROSTER OF INTERNS ATTENDING HEADQUARTERS ORIENTATION

SEPTEMBER 4-6, 1968

HEADQUARTERS

<u>Name</u>	<u>Headquarters Assignment</u>	<u>Degree &amp; Major</u>	<u>College</u>
<u>LEGAL</u>			
Bradley, Schuyler L.	General Counsel	BLL/Physics	Wisconsin U
Florsheim, Mark J.	General Counsel	BLL/Economics	Columbia
Sloss, Charles S.	General Counsel	BLL/Law	Harvard
<u>PATENT</u>			
Francescani, David R.	General Counsel	BLL/Mech Eng	Notre Dame
<u>MANAGEMENT</u>			
Domagala, Martin J.	Secretariat	MA/Pol Sci	Syracuse U
English, Edward G.	Secretariat	MA/Pol Sci	U So Calif
Heyn, Libby	Secretariat	MA/Int. Rel.	Tufts U
Larsen, Phillip D.	Personnel	MA/Pub Admin	U of Nebraska
Sherr, Theodore S.	Safe & Matls Mgmt	MS/Acctg	U of Minnesota
<u>TECHNICAL</u>			
Absher, Kenneth R.	Reactor Dev & Tech	BS/Nuc Eng	UCLA
Veerling, John P.	Materials Licensing	MS/Rad Biology	U. of Tenn
Volpe, Frederick J.	Reactor Dev & Tech	BS/Elec Eng	Penn State
Wilson, Lawrence W.	Reactor Dev & Tech	BS/Physics	U. of Illinois



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

September 6, 1968

Approved \_\_\_\_\_

R.E.H.

Date \_\_\_\_\_

R. E. Hollingsworth, General Manager

ACTION SUMMARY OF MEETING 2342, FRIDAY, SEPTEMBER 6, 1968, 2:40 P.M.,  
ROOM 1115, D. C. OFFICE

SECY: EGE

Commission Business

AEC 1283/13 - Statistical Tables for FY 1970 Budget Estimates (See also  
AEC 1283/12, 1283/14, 1283/15, 1283/16, 1283/17 & 1283/18)

Discussed.

Original signed  
W. B. McCool

W. B. McCool  
Secretary

cc:  
Chairman Seaborg  
Commissioner Ramey  
Commissioner Tape  
Commissioner Johnson

Ray's son, Tom, and his fiancée, Karen Anderson, came by to see us while we were in the house.

Jeanette and Ray drove me back to the Jubilee Motor Inn where I spent the night.

Sunday, September 8, 1968 - Los Angeles

I had breakfast in the coffee shop of the Jubilee Motor Inn. Ray came by and picked me up and drove me to their home in Long Beach where Jeanette served a sandwich lunch. Ray's son, Tom, ate with us and then drove to Inglewood to pick up his fiancée, Karen. Jeanette and I talked by phone with Reverend Charles D. Clark (Methodist Church of Lynwood) to give him the background on Mom.

We then all rode in Ray and Jeanette's station wagon to Ethel and Clifford Clauss' house in Downey. Present were Elmer and Lillian Johnson; Clark and Vicky Johnson and their children, Brad and Glenn; Larry and Marie (Wood) Clauss and their very young son (about one year old), Greg; and Sidney and Margie Johnson and their son, Danny. Ethel served us all a buffet dinner (a roast), after which the Larry Clausses left. Then we took a number of group pictures.

Ethel told me how Mom was determined, during the two weeks of Jeanette's vacation (August 3rd to 17th) when Ethel went to see her every day, to eat (to keep up her strength as she said) and to take a walk with her walker every day. She would wait for her walk until Ethel came and they would walk down to the seats at the end of the hall (where Jeanette and I walked with her on July 18th). She tried so hard to keep up the practice of getting out of bed to go to the toilet that she fell down due to weakness on Sunday morning, August 18th. She phoned both Jeanette and Ethel to tell them she had fallen down. She had called to the nurse who helped her up and then called Dr. Dreher who examined her and determined that no harm was done. She kept hold of the edge of the bed during her fall and eased herself down to the floor slowly. Jeanette told me that after she had been moved to the Marlinda Nursing Home, Jeanette asked Mom on Tuesday, September 3rd, when it became apparent she was failing, if she wanted me to come out. Mom said that it wasn't necessary unless I was coming out on business anyway. Jeanette said Mom refused medicine of all kinds by Wednesday, September 4th.

When we left Ethel and Clifford (Jeanette, Ray, Tom, Karen and I), we visited the Biby and Belyea mortuary again to see Mom. Flowers were present from the AEC Advisory Committee on Reactor Safeguards; Mr. and Mrs. Lawrence Risen; Signor and Florence Lindgren; James and Diane Bryson and Esther Wells; Richard, Beverly, Patrick and Michael Good; Larry White (Jeanette's boss); Jean and Bill Walsh; Alice and Jim Robinson; Pat and Joyce Murphy (Lawrence Risen's daughter); Henry Seaborg; Charles and Lorraine Seaborg; Jay and Betty Rigby; Mr. and Mrs. Orville Carraway (Ethel's friend Gertie); and Frank Kay, Jr.

We then visited 9237 San Antonio Avenue where we found Ruth Ryan and Mrs. Anne Engstrom. Here we found some more of the old letters Helen and I had written to Mom and Pa over the years. Mrs. Engstrom described to me how, as late as Wednesday, August 28th, Mom had insisted on getting out of bed to go to the toilet and that she succeeded with the help of a nurse, saying it was necessary in order to exercise herself if she were to recover. After this adventure and after she had been helped back to bed, she said she was in such pain that it was more than she could continue to take. Earlier Ethel told how she brought Larry and Marie Clauss, with their son, Greg, to show him to Mom (I believe it was Sunday, August 25th) and Mom had remarked about what a cute boy he was. I also picked up the box of Seaborg genealogy papers and pictures to bring back to Washington and Jeanette took three photo albums (full of old pictures) and my school papers to keep in her Long Beach home.

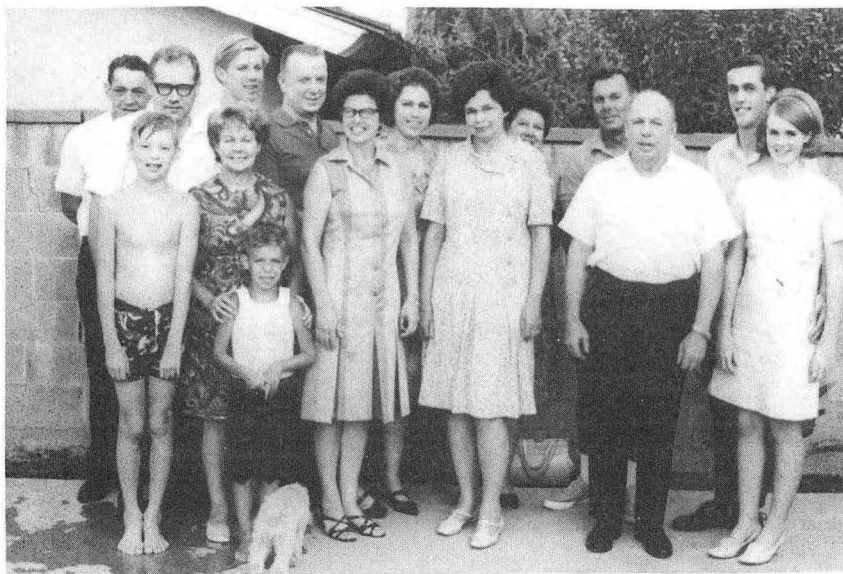


Jeanette and Ray, along with Tom and Karen, dropped me off at the Jubilee Motor Inn where I spent the night.

Earlier in the day, during our visit at Ethel's home she told me about the birthday card that Mom wrote for Steve around August 10th. She told Ethel to be sure to get the card because she wanted to send it to Steve. She wrote the greetings to Steve on the card but when she addressed the envelope, she faltered at the "Washington, D.C.," which she had Ethel write. She told Ethel the zip code number from memory. This card is the last thing she wrote.

Toward the end she couldn't sign her name to her checks, and finally, a day or two before the end, Jeanette had to guide her hand to make an "x" on her social security check. She gave up eating during the last two weeks or so, saying her throat hurt and she was nauseated. She asked Jeanette to buy her Roloids and other remedies, which Jeanette did (at least some of the remedies), but it is doubtful that she used them. She refused her medicines on Wednesday, September 4th. Her mind was lucid to the end, even the evening of Thursday, September 5th, in fact, Jeanette thought she was unusually lucid that evening.

During the last few weeks she had periods of hallucinations due to the pain-killing drugs but she knew that her dreams were not real and discussed them with Ethel and Jeanette. She said to Ethel, "That crazy thing I saw can't be real - it looked like something Mrs. Perlstrom would do." On another occasion she said to Ethel, "You didn't really ask me to go with you to put flowers on your mother's grave, did you?"



Clauss's yard, Downey, California, September 8, 1968

L to R: Ray Edwards, Clifford Clauss, Glenn and Brad Johnson, Ethel Clauss, Danny, Clark, Margie and Vicky Johnson, Jeanette Edwards, Lillian, Sidney and Elmer Johnson, Tom Allen and Karen Anderson

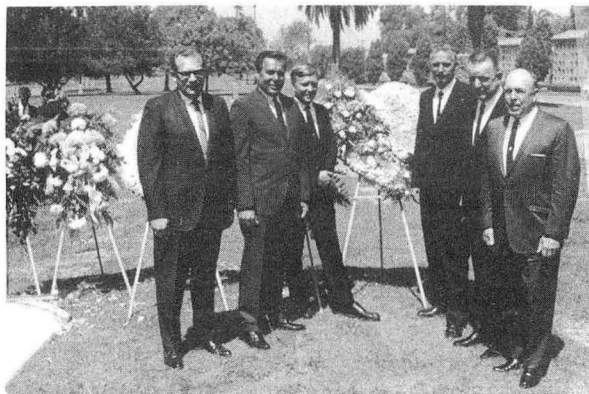
Monday, September 9, 1968 - Los Angeles, California

I had breakfast in the Jubilee Motor Inn coffee shop. I spent some time reading old letters Helen and I had written to the folks. Clifford and Ethel Clauss then came by with Jeanette and Ray and drove us to the Biby and Belyea mortuary. Jeanette, Ray, Ethel, Tom, and Karen sat in the family room as the people came in and during the ceremony. Reverend Charles D. Clark (Methodist Church of Lynwood) officiated and spoke. A soloist sang, "Beyond the Sunset," and "The Old Rugged Cross." The latter was one of Mom's favorites. Reverend Clark spoke and read from the scriptures and then gave an excellent eulogy and summary of the impact of Mom's life, emphasizing her influence on her children and the Johnson children. (I have the text of the eulogy.) After the ceremony people filed past Mom's casket. Among those present (their names, i.e., signatures are in the guest book) were Clark and Vicky Johnson; Elmer and Lillian Johnson; Sidney Johnson; Lloyd, Doris, Cindy, Debbie, and Stanley Johnson; Larry and Marie (Wood) Clauss; Ruth Ryan; Anne Engstrom; Mr. and Mrs. Larry Risen; Florence Lindgren; Yoshie Kadota; Rita, Clayton and Earl Sheldon; Mildred (Goldsby) Rooth; Mr. and Mrs. Norman West; Mr. and Mrs. Chester Hector (Margie West); Mr. and Mrs. Astler; Mr. and Mrs. Dan Policy (Barbara Clauss' [Lloyd's wife] parents); Mr. and Mrs. Lloyd Clauss; and many others. The room was full and there were some 30 contributions of flowers of various sizes. The flowers were contributions, besides those we saw last night, from Commissioners Ramey, Tape and Johnson, Bob Hollingsworth, my AEC office staff, Lucile, Joanna, Steve Cobb, all the Johnsons, the Lloyd Clausses, Larry Clausses, Eric and Marguerite Rettmer, the Norman Wests and Chester Hectors, the Fridoff Kristinsons, Folke Paulsons, Mrs. Carl Peterson of Vasa, the Sundlies, Swansons, Hulda Swanberg, the Gordon Swanbergs, Harry Greens, George Greens, Percy Chinns, Jerry de Gabrieles, Esther Arnott, Alice Fitzpatrick, William Larson, Mayflower Lodge No. 445, the W. B. McCools, the Leo Edwards family, Arnold and Betsey Fritsch, and Mr. and Mrs. Dan Policy.

After the ceremony I had my picture taken by Trig Svendsen for the South Gate Press.

We then rode in the funeral procession to the Inglewood Cemetery. Jeanette, Ray, Ethel, and I rode in the Biby and Belyea car which followed the hearse. The pallbearers were Elmer, Clark, Sidney and Lloyd Johnson and Clifford and Larry Clauss. Our car was followed by about a dozen others in the procession which was monitored by motorcycle policemen. We rode on Manchester Boulevard to the Inglewood Cemetery. It was here the ceremony began by readings by Leonard Swanson (Vice Chairman, Mayflower Lodge of Vasa), Alice Erickson, and the Chaplain. Following this, these and other members of the Mayflower Lodge and each of the pallbearers laid a white carnation on the casket. The casket was covered with flowers and a huge pile of flowers was nearby - all that had been at the mortuary. The eight or so stands of flower sprays stood arranged on each side of the casket. Following the Vasa ceremony, Reverend Clark spoke and read briefly from the scriptures.

Following the ceremony, Jeanette and I spoke to the many people who had come to the cemetery from the mortuary. These included the four Johnson families, Ruth Ryan, the Risens, Earl Sheldon, the Norman Wests, Chester Hectors, Dan Policys, Larry Clausses, many Mayflower Lodge people, Mrs. Blomquist (Doris' mother), Tom and Karen, Anne Engstrom, and many others. I took color pictures of the flower arrangements, the casket, and many of our relatives.



Funeral of Selma Seaborg, September 9, 1968

L to R: Clifford Clauss, Sidney Johnson, Larry Clauss, Lloyd, Clark and Elmer Johnson



Glenn Seaborg and Jeanette Edwards, September 9, 1967

Clifford and Ethel then drove Jeanette and me to a hamburger place nearby on Manchester Boulevard where we were joined by Lloyd, Doris, Cindy, Debbie and Stanley Johnson and Mrs. Blomquist and Tom and Karen for a bite to eat. Clifford and Ethel drove Jeanette and me to the airport where we were joined by Tom and Karen. They all said goodbye to me and I took TWA flight No. 98 to Dulles Airport, leaving about 4:30 p.m. (an hour late due to engine trouble), and arriving about midnight. I was met before plane takeoff by Walter Von Flue of the AEC Canoga Park Area Office who had with him some papers from my office, including the page proof of my article for the Annual Review of Nuclear Science. I read the page proof of my article on the plane, finishing about half of it. (The article, "Elements Beyond 100, Present Status and Future Prospects," was subsequently published in Volume 18, 1968, of the Annual Review of Nuclear Science.) Larry Olson was on the plane and we talked about his new job.

Tuesday, September 10, 1968 - D.C.

At 9:45 a.m. I presided over Commission Meeting 2343 (action summary attached) and the Commissioners continued to discuss the FY 1970 budget.

At 11:25 a.m. the Commissioners and staff met with Sir Charles Cunningham (Deputy Chairman, UKAEA), David Peirson (Secretary, UKAEA) and John Andrews (UKAEA Scientific Representative of the British Embassy). We exchanged views and information on civilian reactor programs in the U.K. and the U.S., especially the recently contemplated reorganization of the U.K. program.

At 12:30 p.m. I hosted a luncheon for our UKAEA visitors in our D.C. office dining room. I spoke briefly about U.S.-U.K. cooperation in atomic energy and after lunch Sir Charles responded.

I received a telephone call from Dan Moore (International Platform Association) at 2:05 p.m. He said he was very pleased with the piece I sent him for Talent magazine. A cartoon of me will appear on the front page of this special issue. (The article, "The Public Speaker Today," was published in the November 1968 issue of Talent.) He said he will send me the original of the cartoon as a memento. He said that the ballots indicated that December 17th would be the best day for a meeting to be held in Cleveland; therefore, since this is also the date that I indicated as possible for me, he asked me to be the main speaker after dinner. This will be the second annual meeting; last year's was very successful. The meeting will begin about 1 or 2 p.m. with the group sitting around big tables in the hotel, talking informally. The dinner will be held in the evening, and I would speak immediately after dinner, and this would be followed by variety entertainment. About 400 people will be present, including the press, representatives of AP, UPI, and some television. He is limiting all the speakers that day to 20 minutes; however, he said I should feel free to speak as long as I wish, but he would like me to give him a time estimate, for scheduling purposes. He said if I want to say something on which I would like national coverage, he could arrange that. In addition, he is going to set up "a few television appearances" during my visit. I told him I would arrive Tuesday afternoon, December 17th, and plan to leave early the next morning. He asked that I let him know my arrival plans and he will arrange to have me met. Also, he invited me to be his house guest during the visit.

At 2:15 p.m. I presided over Commission Meeting 2344 (action summary attached).

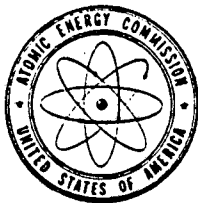
I sent my biweekly report to President Johnson (copy attached).

We had a birthday dinner for Lynne and Steve. Susy and Debbie Ehrlich had dinner with us. I learned that Pete, Lynne, Bill and Susy went to visit the Jenkins on Sunday and Monday. Susy stayed with us a few nights.

I read a letter of August 6, 1968 (copy attached) from Bob Dorsey, President Gulf Oil Corporation, describing (in response to our request) the nature of the commitment that Gulf is making for the successful development of the HTGR.

Wednesday, September 11, 1968 - D.C.

At 10 a.m. I presided over Commission Meeting 2345 (action summary attached). The Commission continued to work on the FY 1970 budget. We succeeded in meeting the \$2.4 billion BOB target and now must arrange the items above that figure in a priority listing.



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

UNCL. BY DOE  
NOV 86

September 10, 1968

Approved \_\_\_\_\_  
R. E. H.

Date \_\_\_\_\_

R. E. Hollingsworth, General Manager

ACTION SUMMARY OF MEETING 2343, TUESDAY, SEPTEMBER 10, 1968, 9:50 A.M.,  
ROOM 1115, D. C. OFFICE

SECY:MJD

Commission Business

AEC 1283/13 - Statistical Tables for FY 1970 Budget Estimates (See also  
AEC 1283/12, 1283/14, 1283/15, 1283/16, 1283/17 & 1283/18)

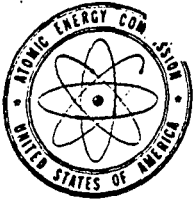
Discussed.

The Commission noted Physical Research operating expenses,  
particularly the Controlled Thermonuclear program, as a possible area  
for increased funding. (OC)

Original signed  
W. B. McCool

W. B. McCool  
Secretary

cc:  
Chairman Seaborg  
Commissioner Ramey  
Commissioner Tape  
Commissioner Johnson



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

ENCL. BY DOE  
NOV 86

September 10, 1968

Approved \_\_\_\_\_

R. E. H.

R. E. Hollingsworth, General Manager

Date \_\_\_\_\_

ACTION SUMMARY OF MEETING 2344, TUESDAY, SEPTEMBER 10, 1968, 2:15 P.M.,  
ROOM 1115, D. C. OFFICE

SECY:EGE

Commission Business

AEC 1283/13 - Statistical Tables for FY 1970 Estimates (See also  
AEC 1283/12, 1283/14, 1283/15, 1283/16, 1283/17 & 1283/18)

Discussed.

The Commission:

1. Noted for further consideration the capital equipment funding level for the food irradiators for foreign countries; (OC)
2. Noted for further consideration the possible inclusion of the \$1.85 million for the AEC Headquarters Computer Building in the BOB target for the PDA construction project budget; (OC)
3. Requested staff proceed with preliminary arrangements necessary for a meeting between the Commissioners and BOB on the FY 1969 and FY 1970 funding of the circulatory support system; (OC)
4. Requested staff provide more information on the acceptability of dividing the \$7.0 million payment to the Richland, Washington school district, as provided for in the BOB target of the Community operating expense budget; (OC) and
5. Requested early preparation of a response to letters inquiring about the availability of Gasbuggy data. (PNE)

Original signed

W. B. McCool

W. B. McCool  
Secretary

cc:  
Commissioners

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

ENCL. BY DOE  
NOV 86

September 10, 1968

OFFICE OF THE CHAIRMAN

The President  
The White House

Dear Mr. President:

I have the pleasure of submitting the biweekly report on significant developments in the atomic energy program:

1. The Twelfth General Conference of the International Atomic Energy Agency will convene in Vienna on September 24 and is expected to run to the end of the month. In addition to reading your statement to the General Conference on September 25, I will deliver the U.S. message which will emphasize the possibilities of the Non-Proliferation Treaty for making the peaceful atom widely shared throughout the world under appropriate safeguards. The principal item on the agenda will be consideration of the Agency's regular budget for 1969 of about \$11.3 million and a \$2 million target figure for voluntary contributions.

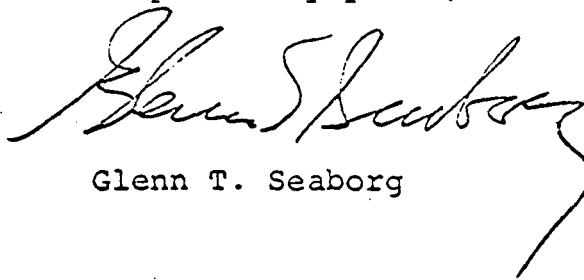
On the way to Vienna I plan a short stopover in Brussels to meet with members of the European Community and to discuss areas of mutual interest. Further, in view of the crucial aspects of the Federal Republic of Germany to the success of the NPT, I plan a short visit to Bonn for discussions with Minister Stoltenberg and others on the status of the treaty and other matters as well as visiting one of the West German research institutes. On returning from Vienna I propose a very short stop in Lisbon in order to honor a long-standing invitation that I have had from the Portuguese Atomic Energy Commission.

2. The United Kingdom has concluded a contract for the sale of a research reactor to Rumania. The sale is not a major transaction in financial terms but it marks the first reactor sold to a bloc country by a western nation. The sale of this reactor, to be used at the Institute of Atomic Physics, Bucharest, is permitted under the condition that a safeguards agreement be negotiated with the International Atomic Energy Agency.

3. A U.S. "Atoms in Action" Demonstration Center opened in Seoul, Korea on September 9. President Chung Hee Park of Korea participated in the ceremony along with U.S. Ambassador William Porter and Dr. Kimn Kee Hyong, Chairman of the Korean AEC and Minister of Science and Technology. The exhibit will remain open until October 3. Various laboratory equipment is available for use by technical personnel, and three Korean teachers, especially trained at U.S. Atomic Energy Commission facilities, will provide lecture-demonstrations to some 6,000 high school students. This is one of two AEC Demonstration Centers displayed in selected foreign countries each spring and fall. The other center is scheduled to open in Cordoba, Argentina on October 5, and run for approximately one month.
  
4. The first domestic uranium toll enrichment contract for production of fuel for a nuclear power plant was signed by AEC and Kerr-McGee Corporation on September 4. Under this arrangement privately owned uranium is enriched in AEC facilities upon payment of a service charge by the customer. The enriched uranium is then used by the customer in the fabrication of fuel - in this case for the Fort Calhoun Nuclear Plant in Nebraska. The cost for the toll enrichment service under this contract is estimated at \$9.4 million.

As I have indicated in Item 1, I will be out of the country when my next biweekly report is due on September 24. I will submit a report covering my trip promptly upon my return and will plan on submitting my next biweekly report on October 8.

Respectfully yours,



Glenn T. Seaborg

cc: Bromley Smith



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NOV 86

GULF OIL CORPORATION  
GOVERNMENTAL RELATIONS DEPARTMENT  
1025 CONNECTICUT AVENUE  
WASHINGTON, D. C. 20038

CLAUDE C. WILD, JR.  
VICE PRESIDENT

AREA CODE 202  
659-8720

September 5, 1968

Mr. Julius H. Rubin  
Staff Assistant to the Chairman  
U. S. Atomic Energy Commission  
1717 H Street, N. W.  
Washington, D. C. 20545

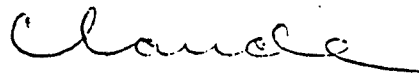
Dear Julie:

Enclosed is a final original version  
of a letter from B. R. Dorsey, President  
of Gulf Oil Corporation, to Chairman Seaborg.

I hope this letter is satisfactory to  
all parties concerned. If, however, it is  
not, please let me know.

With best regards, I am

Sincerely yours,



Claude C. Wild, Jr.

# Gulf Oil Corporation

ENCL. BY DOG  
NOV 86

B. R. Dorsey  
President

August 6, 1968

Gulf Building  
Pittsburgh, Pa. 15230

The Honorable Glenn T. Seaborg  
Chairman  
U. S. Atomic Energy Commission  
1717 H Street, N.W.  
Washington, D.C. 20545

Dear Chairman Seaborg:

I am writing in confirmation of the points made by me for Gulf Oil Corporation in the meeting between Gulf and the AEC of June 3, 1968 and in subsequent conversations.

First, I wish to say how pleased we were to hear Dr. Kavanagh state, and Mr. Hollingsworth confirm, that there is no communication problem between the AEC and Gulf.

Second, I should like to repeat that Gulf has confidence in, is optimistic about, and absolutely intends to proceed with the orderly development of the HTGR. This is a business commitment made by Gulf to the future of the HTGR, and the associated programs such as breeder reactors. As I have told you, Mr. Brockett and I are personally interested and involved in this concept, and have so committed the Corporation.

Most specifically, my letter to you of May 3 intended no change in the position taken by Gulf in my letter of April 17, 1968, the pertinent part of which is again quoted;

" . . . GGA and Gulf Oil Corporation assured the Commission of their continuing enthusiastic confidence in the successful outcome of the project and of their unqualified determination to prosecute the design, engineering and construction work, and the necessary research and development, testing, and other incidental tasks, by assignment of the highest priority and application of their utmost efforts."

Gulf fully intends to develop the HTGR concept in accordance with the above quote. The affirmative determination respecting the Peach Bottom Review and the decision reached to proceed with the Fort St. Vrain Project caused no change in Gulf's attitude. Gulf never intended merely to achieve this affirmative determination, with attendant use of AEC funds, and then reverse its determination to pursue the HTGR concept.

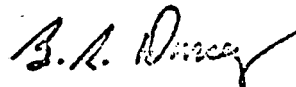
August 6, 1968

Let me further assure you that Gulf Oil Corporation and its wholly-owned subsidiary Gulf General Atomic are one and the same, and the continued success of each is dependent upon the other. This is true of all Gulf subsidiaries, as I explained to you in our June 3 meeting, and is an important part of Gulf's management philosophy. Further to this philosophy, I assure you again that my skills, as well as those of Messrs. Brockett, Dietz, deHoffmann, Henry, Wild and any other Gulf people, will continue to be available to contribute to the HTGR concept if, as, and when required.

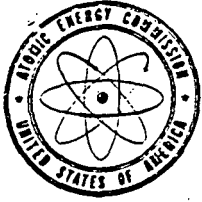
At the June 3 meeting I pointed out the several trips which Mr. Dietz and I had made in the preceding four weeks in connection with the project. Since then, Mr. Dietz has made several additional trips and is in regular contact with the project.

It is my hope that the AEC now accepts this Gulf attitude fully, and that there will be a cooperative effort to proceed together for an early completion of the HTGR concept, thus providing the country with yet another source and form of low-cost energy.

Very truly yours,



B. R. DORSEY  
President



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

UNCL. BY DOJ  
 NOV 86

September 12, 1968

Approved R.E.H.

Date \_\_\_\_\_

R. E. Hollingsworth, General Manager

ACTION SUMMARY OF MEETING 2345, WEDNESDAY, SEPTEMBER 11, 1968, 10:05 A.M.,  
 ROOM 1115, D. C. OFFICE

SECY:EGE

Commission Business

1. General Giller's Oral Report re Test Events

The Commission requested staff prepare a comprehensive statistical analysis and formulate a response to possible inquiries. (AGMMA)

2. AEC 1283/13 - Statistical Tables for FY 1970 Budget Estimates (See also AEC 1283/12, 1283/14, 1283/15, 1283/16, 1283/17 & 1283/18)

The Commission:

- a. Requested discussion of AEC 1283/18 on Friday, September 13, 1968; (AGMPP/RM/SECY)
- b. Approved, tentatively, the AEC FY 1970 Commission budget reductions to meet the BOB planning figure. Additions and deductions from AEC 1283/12 are noted below. The Controller will make minor adjustments as necessary:

The BOB target, as revised, per AEC 1283/12: \$2,500.0 million

Deductions:

(In Millions)

200 BEV.....	\$ 102.0
Toll Enrichment Revenues	
FY 1969 Carryover .....	10.0
FY 1970 Revenues.....	20.0
ROVER (Op).....	4.5
FFTF (plant).....	4.8
MESON (plant).....	5.2
Two Additional Computers (Equip).....	5.9
Proc. of Reactor Products (Op).....	.6
PNE Excavation & R&D (Op).....	2.7
Contractual Services - Reg (Op).....	.6
Other Fast Breeders (Op).....	1.0
Safeguards (Op).....	.6
LMFBR (Op).....	2.0
Equip. Test Facility (plant).....	2.0
GSO.....	3.8
	165.7

Subtotal..... \$2,334.3

Subtotal(brought forward) .....\$ 2,334.3 million

Additions:

(In Millions)

Physical Research (Op. inc. \$1.0 for CTR)....	\$ 3.0	
TEI (Op).....	.5	
ID (Op).....	.5	
EURATOM (Op).....	.4	
MS (Op).....	2.0	
MS - AE(plant).....	2.0	
MTR (Op).....	1.5	
Isotope Irrad. (Equip).....	.2	
Hqtr. Computer Bldg. (Plant).....	1.8	
GSO.....	2.5	\$ 14.4
Subtotal.....		\$2,348.7
200 BEV.....	52.0	+52.0
Subtotal.....		\$2,400.7
Rounding Adjustment.....		-.7
TOTAL.....		\$2,400.0

The GM budget case, as revised, per AEC 1283/12: \$2,883.3

Deductions

Toll Enrichment		
FY 1969 Carryover.....	\$ 10.0	
FY 1970 Revenues.....	20.0	
Power Burst Fac. (plant).....	2.4	32.4
Subtotal.....		\$2,850.9

Additions

SNM (plant test & Process Dev. - Op).....	3.5	
Safeguards.....	.4	
Weapons (Cons).....	13.0	
MS - AE (plant).....	2.0	
EURATOM (Op).....	.4	
ROVER (Op).....	.5	
GSO.....	1.2	21.0
COMMISSION BUDGET.....		\$ 2,871.9

R. E. Hollingsworth  
Action Summary 2345

-3-

September 12, 1968

- c. Noted the Controller will provide the Commission with a list of priority reductions from the Commission budget to meet the BOB Planning Figure; and
- d. Noted the Controller will provide a draft transmittal letter to the BOB.

(OC)

*Original signed  
W. B. McCool*

**W. B. McCool**  
**Secretary**

cc:  
Chairman Seaborg  
Commissioner Ramey  
Commissioner Tape  
Commissioner Johnson

At 1 p.m. I had lunch at the Pot O' Gold Restaurant with Arnie Fritsch, Justin Bloom, and Stan Schneider to discuss my speech on uses of Cf-252, to be given at Gatlinburg, October 8, 1968.

I read page proof on my Annual Review of Nuclear Science article. (The article, "Elements Beyond 100, Present Status and Future Prospects," was subsequently published in Volume 18, 1968, of the Annual Review of Nuclear Science.)

Debbie Ehrlich and Peggy Willig joined the entire family (including Lynne, Bill, and Pete) at dinner. Susy Ehrlich joined us for a showing by Steve of our vacation movies.

Thursday, September 12, 1968 - D.C.

At 10:55 a.m. I called Ted Sherburne, Science Service, and asked him if he thought anything could be accomplished with the Max C. Fleischmann Foundation by my calling Walt Roberts, and he said after seeing Roberts' letter to him, he didn't think so. He said he would write him a note asking him to keep pushing. He said RCA seemed very interested. He also said he thought we should talk soon about finances. I told him I would be leaving for Europe next Tuesday and will be gone about ten days. He said he will call my office and make an appointment for the week of October 1st.

At 11:30 a.m. I met with Professor Robert Marshak, University of Rochester (with Jerry Tape and Arnie Fritsch present part of the time), to discuss his plans for the Ford Atoms for Peace awards to assume the form of ten or so \$15,000 awards to people less than 50 years old. We discussed candidates and I strongly promoted Al Ghiorso as a logical recipient. I also strongly endorsed Aage Bohr and Ben Mottelson as candidates.

At 1 p.m. Arnie Fritsch and I had lunch with Professor Marshak at the Pot O' Gold, followed by a walk in Lafayette Park.

At 4:30 p.m. Jerry Tape and I met with Don Hornig in his office, to discuss the composition of a PSAC panel to assess the safety of AEC Nevada weapons tests; this would be in response to the concern of Howard Hughes and others.

I wrote to Dr. Fritz Hellwig, Vice President, Commission of the European Communities, to discuss relations and possible meetings with the European Communities (copy attached).

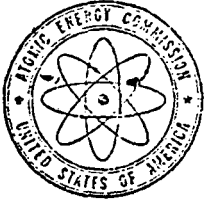
Dale New and Jim Beckwith are visiting us for a few days. They took a hike with Steve, Eric, Suki, and me in Rock Creek Park. They also had dinner with us.

Lynne and Bill flew back to Cambridge this morning.

Friday, September 13, 1968 - D.C.

At 10:30 a.m. I taped a radio program interview with Parsons of the U.S. Chamber of Commerce on AEC-industry relationships in the development of the peaceful uses of nuclear energy. Ernie Tremmel also participated and Anderson of the Chamber's Committee on Science was present.

At 11:30 a.m. I presided over Information Meeting 830 (notes attached). At the beginning of the Information Meeting, I presented AEC Certificates of Appreciation to Allan Labowitz and William Oakley. Their wives, Rhoda Labowitz and Mary Anne



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

SEP 12 1968

Dr. Fritz Hellwig  
Vice President, Commission  
of the European Communities  
51 Rue Belliard  
Brussels 4, Belgium

Dear Dr. Hellwig:

I was pleased to receive your letter of July 25, 1968, telling us of the actions which have transpired in the Community since your visit here last February. We, too, look forward to the opportunity of discussing in further detail the matters of current importance to the Community and also matters of common interest to our respective programs when you will be here for the AIF/ANS International Conference in November.

I am, of course, planning to attend the General Conference of the IAEA in Vienna as Chairman of the U.S. delegation and would find it possible to stop in Brussels on September 19 if you consider this would be useful and convenient. I recognize that this visit would precede the important Fall meetings of your Commission and Council of Ministers, but I believe it would enable us to begin the discussion of several matters of mutual interest which we would continue during your visit here in November.

I found your description of the course which you are following to achieve agreement on Euratom's program quite interesting. We recognize the complexity of the problems which you are facing and appreciate that the Commission's efforts are still strongly directed toward the accomplishment of a strong, stable program in the major areas of nuclear research and development, especially in the field of nuclear power.



Dr. Fritz Hellwig

- 2 -

As I know you are aware, we too are facing difficult problems of program development here as well, primarily as a result of the intense pressures to reduce budgetary expenditures. This has required at every level of our budgetary review process a re-evaluation of our priorities and reductions in virtually all of our programs. One consequence of this, which, of course, was a disappointment to us, was the reduction in funds available for expenditure on our joint reactor program. Since these reductions came as a result of Congressional action, it was not possible for us to discuss them with you in advance, and I am therefore particularly anxious to have the opportunity to review this matter, as well as all other aspects of our cooperation, during our respective visits.

On another matter, I would like to call your attention to a symposium which we are conducting at Oak Ridge for utility and governmental representatives from abroad to present our enriched uranium supply policies and capabilities in detail. This symposium will be held on November 7-8, 1968, and I would like to extend to you a cordial invitation to attend it if your schedule permits.

With best personal regards.

bcc: Brussels Office  
 Chairman (2)  
 Commissioner Ramey  
 Commissioner Tape  
 Commissioner Johnson  
 GM (2)  
 Secretariat (2)  
 AGMIA  
 OGC  
 DD/DIA  
 W. Yeomans, DIA  
 RES RSD /br/DIA  
 DRDT

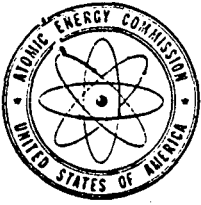
Chairman

DIA:AD.PD&L

action EA 3894

Yeomans

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DATE ▶	9/10/68	/s/	/s/	retype		



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

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NOV 86

COPY NO. 2  
September 13, 1968

INFORMATION MEETING 830

11:35 a.m., Friday, September 13, 1968, Chairman's Conference Room, D. C.

1. September 5 Letter from Dr. Javier Correa-Miller re Fruit Fly Project

A proposed reply is requested. (AGMR&D)

2. September 7 Letter from Carlos Salvetti, CNEN, re Refabrication of Fuel Elements for Elk River Reactor

Noted. (AGMIA)

3. Volume II of the AEC History

A draft letter and memorandum are requested. (AGM-SECY)

4. President's Message on the Coal Mine Safety Act

The Chairman invited the Commissioners' attention to the President's message.

5. Funding for the Federal Radiation Council

Staff views are requested. (OC)

6. Commissioner Tape's September 10 Memorandum re IBM Computer Educational Program

To be scheduled. (SECY)

7. Agenda for the Week of September 16, 1968

Approved. (SECY)

8. Calendar Planning for September, October, November, 1968

Noted. (SECY)

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

Noted. (AGMMA)

10. September 6 Letter from Price Daniel, Director, OEP, re High Heels-68

Staff representation is suggested if appropriate. (EAGM)

11. Official Commission Photograph

Scheduled for 9:45 a. m., Monday, September 16, 1968, Room A-410, Germantown. (PI-SECY)

12. Attendance of Dr. Robert Duffield, ANL, at Mexico City Exhibit

13. Plans of Eugene Light and Power Company, Eugene, Oregon re Nuclear Power Plant

14. Briefing Booklet for AIF/AEC Meeting, September 17, 1968 (See Secretary's September 12, 1968, Memorandum)

Noted. (IP-SECY)

15. Mr. Fowler's September 11, 1968, Memorandum re Price Reduction on Carbon-14 - Extension of Time for Public Comment

Noted.

16. Consultant for the ACRS

Noted. (SECY)

17. Commissioners' Meeting with the ACRS (See Secretary's September 11 Memorandum)

|| Scheduled 2:30 p.m., October 3, 1968. (SECY)

18. Opening of AEC Exhibit in Cordoba, Argentina, October 5, 1968

Mr. Vinciguerra will attend. (AGMA)

19. Space Plans

Staff consideration is suggested. (AGMA)

20. AEC 29/146 - Proposed Reply to GAC's July 17, 1968, Report on 105th GAC Meeting

Approved with changes. Further comments should be addressed to Commissioner Tape. (Rosen) (Attached to 9/17/68 diary.)

21. AEC 814/16 - Distribution of Transplutonium Element Samples

Approved. (R)

22. AEC 333/55 - DOD Establishment of Critical Weapon Design Information Controls

Approved subject to Commissioner Ramey's comments. (AGMA-SECY)

23. AEC 374/187 - CONDOR Impact and Capabilities Study

Approved. (AGMMA)

24. AEC 141/102 - Construction of Additional Holes in Central Nevada

Noted with a request. (AGMMA-OC)

25. Commissioners' Meeting with Dr. Hornig, White House, re Special Committee

Additional information and suggestions on possible replacements will be developed prior to a call to Dr. Hornig. (Fritsch-Rosen-AGM)

26. Oral Report on Land Acquisition for 200 BEV

\*\*\*\*\*

27. AEC 1143/74 - Center for Graduate Study at Richland  
Noted. (AECA)
28. AEC 1192/63 - Pending Contractual Matters Report No. 271  
A briefing is to be scheduled. (AGMR&D-BM-SECY)
29. AEC 1192/64 - Additional Information Concerning Contract with Gulf General Atomic  
Noted. (DC)
30. Pending Contractual Matters Report No. 274  
Noted. (PAR)
31. Dr. Beck's September 11 Memorandum re Survey of Radiation Levels of Packages Being Transported by Public Carriers  
Noted.
32. AEC 783/100 - AEC Comments on the Holifield-Anderson Bill, H. R. 18667 and S. 3851  
Approved with changes. Commissioner Ramey may testify on September 20, 1968. (GC-Congr.)
33. General Manager's Oral Report re Plans for the Dalat Reactor, South Vietnam  
Noted. (AGMIA)

W. B. McCool  
Secretary

2:35 p. m.

PRESENT:

COMMISSIONERS:

Chairman Seaborg  
Commissioner Ramey  
Commissioner Tape  
Commissioner Johnson

STAFF:

Mr. Hollingsworth  
Mr. Brown  
Mr. Schur  
Mr. Kull  
Dr. Fritsch  
Mr. McCool  
Dr. English\*  
Mr. Hewlett\*  
Mr. Tremmel\*  
Mr. Vinciguerra\*  
Mr. Riley\*  
Mr. Anthony\*  
Mr. Erlewine\*  
Mr. Abbadessa\*  
Mr. Price\*  
Dr. Beck\*  
Mr. Wells\*

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Commissioners  
General Manager  
General Counsel  
Secretary

\*Attendance by Topic (s)

Oakley, were present. Nelson Sievering (State Department), Sidney Grayviel (ACDA), Commissioners Ramey, Tape and Johnson, General Manager Hollingsworth, and other key staff were also present. During the Information Meeting the Commission approved, with changes, the draft letter to the Chairman of GAC. This is in reply to his letter of July 17th reporting on the 105th GAC Meeting. (I signed the letter on September 17, 1968, and a copy is attached to my Journal of that date.) We worked through lunch.

At 2:30 p.m. I presided over Regulatory Information Meeting 311 (notes attached). I signed a letter to Peter Strong, Conservation Society of Southern Vermont (copy attached) declining his invitation to furnish a speaker for his conference on "Nuclear Power and Environment: An Inquiry" scheduled for September 11th and 12th.

At 3 p.m. I presided over Commission Meeting 2346 (action summary attached).

Don Hornig called to say President Johnson has approved the Fermi Award for John A. Wheeler.

At 4:30 p.m. I met in Secretary of Interior Udall's office, together with Jim Ramey, Milt Shaw and Bob McFarren, with Udall, Under Secretary of Interior Dave Black, Assistant Secretary of Interior Max Edwards, Jack Hunter (OSW Director), Ray Durante (OSW staff), and Manny Lopez (OSW staff), to discuss the next steps in saving the Southern California desalting project. It may not be possible to save it because the three utilities can't seem to find any common ground for proceeding.

I wrote to Jeanette to express appreciation for her heroic performance during Mom's illness and to send her copies of my acknowledgements to letters and cards of sympathy that we have received.

I took a hike in Rock Creek Park (this time to Ft. DeRussy) with Eric and Suki. Dale New and Jim Beckwith had dinner with us.

Saturday, September 14, 1968 - D.C. - home

I worked at the D.C. office in the morning from 9:45 a.m. to 12:30 p.m.

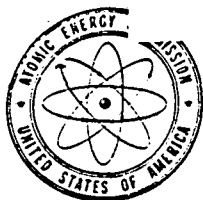
At 12:30 p.m. I had lunch with Arnie Fritsch at the Pot O' Gold restaurant. We discussed his job offers and the advantages and disadvantages of each (Gulf General Atomic and Battelle Northwest Laboratories); he is undecided as to whether to leave the AEC now, and, if he does, which offer to accept.

I wrote to Lynne to send her a news release issued by Science Service and to mention some family activities.

I wrote to Uncle Karl (mother's younger brother) and Aunt Jenny in Kopparberg, Sweden, to thank him for his letter (written in a very readable Swedish) and to describe Mother's illness, death and funeral services (copy attached).

Steve and I played nine holes of golf at the Chevy Chase Club. Steve beat me (51 to 53) - the first time this has happened!

Jim Beckwith and Dale New, who are still staying with us, had dinner with the family.



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WASHINGTON, D.C. 20545

REGULATORY INFORMATION MEETING 311

2:35 p.m., Friday, September 13, 1968, Room 1115, D. C.

1. Mr. Price's August 30 Memorandum re Export of Source Material to Romania - Vistron Corporation, Cleveland, Ohio

Approved. (DML)

2. Mr. Price's September 11 Memorandum re Transmittal of Questions to Baltimore Gas and Electric Company

Mr. Price will call Mr. Gore prior to transmittal of the letter. (DR)

3. Mr. Price's September 11 Memorandum re Nuclear Fuel Services, Inc., (NFS) (See also September 11 TWX from T. C. Runion, President, NFS)

Noted.

- ✓ 4. Letter to Mr. Peter Strong, Conservation Society of Southern Vermont

Approved. (Fritsch)

*dispatched 9/13/68*

5. Letter to Dr. Zabel, Chairman, ACRS, re Subpoena of ACRS Members

Noted for transmittal subject to Commissioner Tape's comments.

(Fritsch-Rosen)

*dispatched 9/13/68*

6. Mr. Price's Oral Report on the Planned Midlands, Michigan Nuclear Reactor Plant

The Commissioners are to be kept informed. (ADRA)

W. B. McCool  
Secretary

3:00 p.m.



PRESENT:

COMMISSIONERS:

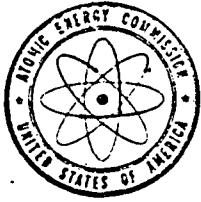
Chairman Seaborg  
Commissioner Ramey  
Commissioner Tape  
Commissioner Johnson

STAFF:

Mr. Price  
Dr. Beck  
Mr. Wells  
Mr. Schur  
Dr. Fritsch  
Mr. Hollingsworth  
Mr. McCool

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Commissioners  
Dir/Regulation  
General Manager  
General Counsel  
Secretary



UNITED STATES  
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WASHINGTON, D.C. 20545

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SEP 13 1968

Mr. Peter Strong, President  
Conservation Society of Southern Vermont  
Bondville, Vermont 05340

Dear Mr. Strong:

This will confirm our recent telephone conversation regarding the scheduling by the Conservation Society of Southern Vermont of a conference on "Nuclear Power and Environment: An Inquiry" for September 11 and 12.

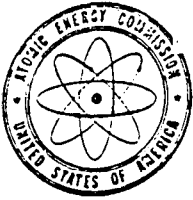
I regret very much that we were unable to furnish a speaker for this conference. As I told you in our telephone conversation, we would be happy to furnish appropriate assistance to the Society in planning a future balanced program which would consider broad issues not directed at any particular project and in suggesting qualified speakers, if we are given sufficient prior notice.

While it is our general practice not to have our staff directly participate in public meetings which may involve debate and protest on the merits of particular projects that are the subject of pending AEC proceedings, we have always been glad to participate in public discussions of atomic energy matters of general interest.

Sincerely,

(Signed) Glenn T. Seaborg

Chairman



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

September 13, 1968

Approved \_\_\_\_\_

R.E.H.

Date \_\_\_\_\_

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NOV 86

R. E. Hollingsworth, General Manager

ACTION SUMMARY OF MEETING 2346, FRIDAY, SEPTEMBER 13, 1968, 3:00 P.M.,  
ROOM 1115, D. C. OFFICE

SECY:EGE

Commission Business

1. AEC 1283/12 - FY 1970 Budget (See also AEC 1283/13, 1283/14, 1283/23 and Draft Budget Transmittal Letter to BOB)

Approved, as revised.

The Commission:

- a. Approved the AEC Budget, as contained in AEC 1283/12, as revised at Meeting 2345 and with the addition in the Commission Budget of \$30 million for Weapons Production and Testing Operating Expenses (STS) and of \$10 million in related GSO;
  - b. Approved the Priority Grouping of Reductions, as contained in AEC 1283/23, with the addition of \$30 million to Category "C" for Weapons Production and Testing Operating Expenses (STS) and of \$10 million in related GSO to Category "C"; and
  - c. Approved, as revised, the Draft Transmittal Letter to the BOB.  
(OC)
2. AEC 1283/18 - Reductions in Raw Materials for FY 1970 Budget (See also AEC 1283/21 and 1283/22)

Discussed.

The Commission requested staff continue to investigate the feasibility of this proposal. (AGMPP/RM)

3. AEC 580/288 - 1968 Materials Planning Estimate

Deferred, to be rescheduled on Monday, September 16, 1968. (SECY)

Original signed

W. B. McCool

W. B. McCool

Secretary

cc:  
Commissioners

September 16, 1968

Dear Uncle Karl and Aunt Jenny:

We were very pleased to receive your letter. I found it easy to read, and I translated it into English so that Helen could also know what you wrote. We both enjoyed the letter very much.

Mother died in her sleep at about 4:40 Monday morning, September 6, at the Marlinda Nursing Home in Lynwood, California (Lynwood is the city just next to South Gate where she had lived for nearly 46 years). On Monday, September 2, she had been transferred to the Marlinda Nursing Home from the St. Francis Hospital in Lynwood when they found at the hospital that they could not do any more to help her.

The funeral services were very beautiful and the chapel was packed with Mother's friends who came in sorrowful tribute. There were floral remembrances from dozens of friends so that the chapel was almost filled with flowers. Jeanette and I, and Jeanette's husband, Ray, and Ray's son Tom and his fiancée, Karen Anderson, sat in the family room during the services, which were conducted by Reverend Charles Clark of the Lynwood Methodist Church. The pallbearers were the four Johnson boys: Elmer, Clarence, Sidney and Lloyd, and Clifford Clauss (Ethel's husband) and Lawrence Clauss (Ethel's and Clifford's son). After the services at the Biby & Belyea Chapel in South Gate, the funeral procession proceeded to Inglewood Memorial Park, where she was laid to rest beside Father, who had been buried there in February, 1957.

Jeanette visited Mother every day during the last month and was a great source of comfort to her. This was a difficult period for Jeanette, and I believe she carried on extremely well.

-2-

I am enclosing copies of the front pages of the South Gate Press and the Lynwood Herald American newspapers which have stories about Mother. I am also enclosing a copy of the remembrance program of the services and a copy of the remarks that were made by Reverend Charles Clark.

Helen and I are leaving for Europe tomorrow, where we will visit Brussels, Belgium; Bonn and Hamburg, Germany; Vienna, Austria; and Lisbon, Portugal. We will return home near the end of the month.

With much love,

(Signed) Glenn I. Seaborg

Mr. & Mrs. Karl Adolfsson  
Kyrkvägen 4A  
S-71400 Kopparberg, Sweden

Encls.

GTS:MJ  
Seaborg, Mrs. H. T.

Sunday, September 15, 1968

I worked on the page proof on my Annual Review of Nuclear Science article. (The article, "Elements Beyond 100, Present Status and Future Prospects," was subsequently published in Volume 18, 1968, of the Annual Review of Nuclear Science.)

I watched with Steve and Eric the Washington Redskins-Chicago Bears opening NFL football game on television, broadcast from Chicago. The final score was Redskins - 38, Bears - 28. The Redskins look good this year.

I drove Pete to Dulles Airport where he caught United flight No. 57, leaving at 5:45 p.m. to San Francisco, where he will be met by the Jasaitises. Dianne accompanied us to the airport. Pete is going to Berkeley to start his graduate work in history. He will live in an apartment and is going out early to try to find one.

I worked on my ORNL speech, "Uranium-233 a Generation after Its Discovery: A Future of Promise," for Gatlinburg on October 8th.

Jim Beckwith and Dale New had dinner with us. Dave showed them around Washington (Smithsonian, National Art Gallery, etc.) today. They are leaving to continue their tour of the East (to New York and New England) tomorrow.

Dave will return to Davis for school later, probably next week while Helen and I are in Europe.

Monday, September 16, 1968 - Germantown

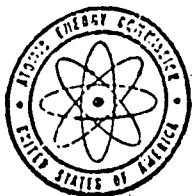
At 10 a.m. I presided over Information Meeting 831 (notes attached).

At noon I talked to the AEC Division Chairmen of the Combined Federal Campaign (in the auditorium) and introduced William J. Driver (Administrator of Veteran's Affairs), Agencywide Chairman.

At 1 p.m. I had lunch with Arnie Fritsch and Julie Rubin, followed by a walk around the building.

At 2:10 p.m. the Commission and staff met with the In-House Study Group (Regulatory Process) - Harold G. Mangelsdorf (Chairman), Warren E. Nyer, Marcus A. Rowden, Ray G. Smith, Stephen H. Hanauer, Peter Morris, Edson G. Case, and John W. Crawford, Jr.

At 3 p.m. I called Edward Breathitt and told him that we now have definite word that his affiliation with Southern Railway and Ashland Oil and Refining Company would not constitute a conflict of interest and thus would not prevent him from accepting the position of Federal Representative to the Southern Interstate Nuclear Board. He asked how much time would be involved and how much Nat Welch had spent on it. I replied that it could be as little as 20 days per year and, although Nat went up to over 100 days at the end, that was his only job at the time. He said he wouldn't want it to interfere with his law practice and I said I was sure he could adjust the time to fit his schedule. He also asked about the length of the appointment or if it would end with the present Administration. I replied that we could not tell about that. He then said he would be happy to



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COPY NO. 2  
September 16, 1968

INFORMATION MEETING 831

10:00 a.m., Monday, September 16, 1968, Room A-410, Germantown Headquarters

1. September 10 Letter from William N. Valentine re Inability to Accept Appointment to Advisory Committee for Biology and Medicine

A recommended alternate candidate will be considered tomorrow.  
(EAGM-BM)

2. Senator Gore's September 12 Letter re New Building to House Biological Research Facilities at Oak Ridge

A proposed reply is requested. (EAGM-BM-OC)

3. AEC 580/288 - 1968 Materials Planning Estimate

Approved with an addition to the letter and a request for staff analysis.  
(AGMP&P-AGMMA-AGMPA-OC-PAR)

4. AEC 891/20 - Sale of the Richland Telephone System

Approved. (CONS)

5. AEC 894/25 - Proposed U.S. Offer to Host IAEA Meeting on Nuclear Data Compilation at BNL

Approved. (AGMIA)

6. AEC 620/57 - Position on Recovery of Damages from Mining Claims

Approved with a request. (GC)

7. AEC 141/103 - Proposed Letter to Senator Bartlett Concerning Questions by CEI

Approved with revisions. (AGM-Fritsch)

8. AEC 767/22 - Fermi Award for 1968

Approved with revisions. (Fritsch-PI-SECY)

9. AEC 671/26 - Management Discussions with Phillips Petroleum Company

Noted. (RDT)

10. AEC 274/46 - Startup of Additional One-Third of Heavy Water Plant

Noted. (P)

W. B. McCool  
Secretary

PRESENT:

11:55 a. m.

COMMISSIONERS:

Chairman Seaborg,  
Commissioner Ramey  
Commissioner Tape  
Commissioner Johnson

STAFF:

Mr. Hollingsworth  
Mr. Bloch  
Mr. Brown  
Mr. Hennessey  
Dr. Fritsch  
Mr. Kull  
Mr. Ryan  
Mr. Rosen  
Mr. McCool  
Mr. Quinn\*  
Mr. Baranowski\*  
Mr. Clark\*  
Mr. Huard\*  
Mr. Abbadessa\*  
Mr. Derry\*  
Mr. Winter\*

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Commissioners  
General Manager  
General Counsel  
Secretary

\*Attendance by Topic (s)



accept the position. I told him he would get an official letter of some kind and that we would take care of notifying the SINB members. I also told him I am very pleased with the President's choice.

At 3:35 p.m. I received a telephone call from Chancellor Charles Young, UCLA, in regard to the problem with the JCAE concerning the Laboratory of Nuclear Medicine and Radiation Biology. He said he has just completed work on a letter that he wants us to see right away but found out that the Commissioners plan to be in Europe for several days. Even though the letter is long, he will send it by telegram tomorrow. It goes over all the points of what has happened to date, what they want to do and indicates his willingness and that of Earl Bolton to meet with members of the Commission and the Joint Committee staff at any time. I told him to send it in and we will try to get it moving. I also said I thought the fact that they are taking the initiative will help. He said he has taken over as Chancellor the first of September and with the exception of a great many things he would like to see already done things are going well.

At 3:40 p.m. I presided over Executive Session (Adjudicatory) 177 (action summary attached).

At 3:45 p.m. I presided over Regulatory Meeting 269 at which the Commissioners approved AEC-R 30/87-Revision of IOCFR Part 33-Specific Licenses of Broad-Scope for Byproduct Material.

At 3:50 p.m. I presided over Commission Meeting 2347 (action summary attached).

I called Al Ghiorso and Burris Cunningham to discuss Jaromir Maly's letter from Paris, dated September 9th, in which he told us he has defected from Czechoslovakia and asked for a position at the Lawrence Radiation Laboratory. We agreed that there is no available position to fit his capabilities.

I wrote to Jeanette to send her a copy of the letter we received from Uncle Karl and Aunt Jenny and of my reply and to send copies of more letters of sympathy and my acknowledgements. I also wrote to Lynne to give her some family news.

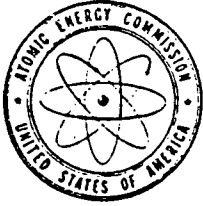
James E. Webb, Administrator, NASA, resigned today, effective October 7, 1968, which is his 62nd birthday. I called to take note of this, to wish him well, and to suggest we keep in touch in the future.

I sent a letter to Charles Zwick, BOB, summarizing our FY 1970 budget deliberations. We listed our projects within the \$2.4 billion target and placed additional items in our \$2.9 billion budget in three priority categories.

Dale New and Jim Beckwith left this morning.

Tuesday, September 17, 1968 - D.C. - London, England

I spent the day at the AEC H Street office. At 10 a.m. I went, with Arnold Fritsch and Stan Schneider, to the offices of the American Association for the Advancement of Science to participate in the press conference at which it was announced that I was the 1968 winner of the Arches of Science Award. Dr. Dixy Lee Ray, Director of the Pacific Science Center, Seattle, spoke about the award, and Dael Wolfle, Chairman of the Award Selection Committee, spoke about my work. I responded with some remarks about the importance of public understanding of science and of scientists doing their part to help educate the public in science. I then answered questions about how I became interested in science and how I entered administrative work.



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September 18, 1968

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ACTION SUMMARY OF EXECUTIVE SESSION (ADJUDICATORY) 177, MONDAY, SEPTEMBER 16, 1968, 3:40 P.M., ROOM A-410, GERMANTOWN, MARYLAND

SECY:WLW

1. Wisconsin Public Service Corporation, Wisconsin Power and Light Company and Madison Gas and Electric Company (Kewaunee Nuclear Power Plant) Docket No. 50-305

The Commission, subject to the Chairman's concurrence, agreed to permit the initial decision to become final on September 20, 1968.

The Chairman concurred in the Commission's action on September 16, 1968.

(SECY/Solicitor)

2. Twenty-fifth Atomic Safety and Licensing Board Hearing

Mr. Wells reported the Hearing now being held on the Commonwealth Edison Company Zion Station Units 1 and 2 (Docket Nos. 50-295 and 50-304) represented the 25th Hearing by the Atomic Safety and Licensing Board during the last 18 months.

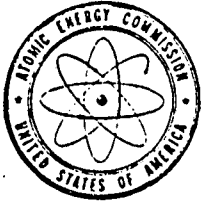
3. Public Service Company of Colorado (Ft. St. Vrain Nuclear Generating Station) Docket No. 50-267

Mr. Wells reported the Initial Decision would be issued September 16, 1968.

Original signed  
W. B. McCool

W. B. McCool  
Secretary

cc:  
Chairman Seaborg  
Commissioner Ramey  
Commissioner Tape  
Commissioner Johnson  
General Counsel  
Solicitor



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WASHINGTON, D.C. 20545

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NOV 88

September 17, 1968

Approved \_\_\_\_\_

R.E.H.

Date \_\_\_\_\_

R. E. Hollingsworth, General Manager

ACTION SUMMARY OF MEETING 2347, MONDAY, SEPTEMBER 16, 1968, 3:50 P.M.,  
ROOM A-410, GERMANTOWN, MARYLAND

SECY:LGH

Commission Business

1. AEC 459/44 - Alternatives for Government Enrichment Activities; and  
AEC 459/45 - Revised Cost Flow Analysis for Gaseous Diffusion Plants

Discussed

The Commission:

- a. Requested staff prepare draft legislation for submission to BOB providing for continued Government ownership and management of U.S. uranium enrichment activities under a proposed corporation to be authorized within the AEC;
- b. Requested the submission accompanying the draft legislation specify the proposal is deemed a transitional arrangement and include provisions for private industry involvement in the corporate structure, if approved;
- c. Authorized exploratory discussions with TVA brokerage and audit firms; and
- d. Noted AIF would be advised that the Commission is giving serious consideration to a corporate structure for ownership of enrichment activities, adding the proposal could be discussed with AIF at a later date.

(GC/AGMPP/C)

2. AEC 603/134 - Special Analytic Study 68-A - High Energy Physics Program

Approved, subject to Commissioner Tape's concurrence. (R)

3. AEC 588/62 - Special Analytic Study 67-4 - Fast Breeder Power Reactor Program

Approved, subject to Commissioner Johnson's concurrence. (RDT)

R. E. Hollingsworth  
Action Summary 2347

-2-

September 17, 1968

4. AEC 720/199 - Charges for Plutonium

Approved. (OA)

Original signed  
W. B. McCool

W. B. McCool  
Secretary

cc:

Chairman Seaborg  
Commissioner Ramey  
Commissioner Tape  
Commissioner Johnson



Arches of Science Award announcement at AAAS, Washington, D.C., September 17, 1968

L to R: Dixy Lee Ray (Director, Pacific Science Center, Seattle), Seaborg, Dael L. Wolfe (Executive Director, AAAS)

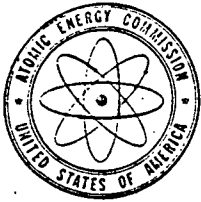
I presided at 11:05 a.m. over Information Meeting 832 (notes attached) and at 12:50 p.m. over Regulatory Information Meeting 312 (notes attached).

I had lunch with Arnie Fritsch and Julie Rubin in my office. I called Hulett Smith, Governor of West Virginia and President of the Southern Interstate Nuclear Board, to tell him that the President had appointed Edward T. Breathitt, former Governor of Kentucky, as Federal Representative to the SINB.

I called John A. Wheeler, reaching him in Zurich (where he had just arrived from a trip to the USSR), to tell him that he had been chosen to receive the 1968 Enrico Fermi Award of \$25,000.

I wrote to President Johnson requesting approval of Bowline II (underground nuclear test program).

I attended, with the other Commissioners and staff, a meeting with the Board of Directors of the Atomic Industrial Forum at the University Club. We discussed the question of transfer of gaseous diffusion plants to industry. In this discussion, we mentioned to them, for the first time, the possibility that we might suggest to Congress the creation of an Atomic Energy Commission Corporation to operate the plants as a transition step toward transferring the plants to private ownership. We also discussed reactor licensing and standards, as well as safeguards.



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COPY NO. - 2  
September 17, 1968

INFORMATION MEETING 832

11:05 a.m., Tuesday, September 17, 1968, Chairman's Conference Room, D. C.

1. Federal Representative to the Southern Interstate Nuclear Board

Noted. (SECY)

2. September 13 Letter from Western Nuclear, Inc., re Mining and Processing Uranium Ore

The staff recommendation for an alternate solution is approved. (AGMP&P)

3. Twelfth General Conference of the IAEA, Vienna, Austria

The Commissioners will keep informed and consult in Vienna.  
(Fritsch-AGMIA)

4. Special PSAC Panel

Commissioner Tape will discuss the proposed members with Dr. Hornig.  
(Rosen)

5. Hughes' Organization Request to the University of Nevada

Appropriate staff action is requested. The Vice President's office is to be informed. (AGM-AGMMA)

6. AEC 1282/8 - Proposed Letter to the President Concerning Bowline II

Approved with a change. (AGMMA)

7. NTS Events (See General Giller's September 12 Memorandum)

Noted. (AGMMA)

8. AEC 517/22 - Updated Status Report on the Laboratory of Nuclear Medicine and Radiation Biology, UCLA (See also September 17 Telegram from Charles E. Young, Chancellor, UCLA)

Preparation of a telegram to Chancellor Young is requested. (BM-Rubin) *sent 9/17*

9. AEC 292/7 - Nominee for Appointment to Advisory Committee on Biology and Medicine

Approved. (BM) *It is dispatched 9/17*

10. AEC 1289 - Special Analytical Study of Advanced Converters

Approved with changes. (AGMR)

11. AEC 610/124 - Contingency Statements

Noted. The Commissioners are to be kept informed. (AGM-AGMIA)

12. AEC 610/128 - U.S. Policy Concerning Cooperation with Foreign Isotope Enrichment Activities

Noted and to be rescheduled. (AGM-SECY)

13. AEC 194/70 - Contract with National Lead Company of Ohio

Noted. (DC)

14. Mr. Tremmel's September 16 Memorandum re Trip Steel Meeting - October 21, 1968

Noted. (IP)

15. Pending Contractual Matters Report No. 275

Noted. (PAR)

16. Mr. Brown's September 13 Memorandum re AEC History - Joint Committee Request

Approved with changes. (AGM-SECY)

17. AEC 343/19 - Request for Historical Information

Approved. (SECY)

18. Dr. Friedman's September 16 Memorandum re Meetings with the Canadians and with the French

Noted. (AGMIA-SECY)

19. Agenda for Commissioners' Meeting with the ACRS, 2:30 p. m., October 3, 1968

Noted. (SECY)

20. AEC 23/75 - AEC Positions on Proposed Revisions to COCOM Embargo List

Staff will solicit Commissioners' comments by the close of business.  
(AGMIA-SECY)

21. Commissioner Ramey's Report on the Bolsa Island Project

W. B. McCool  
Secretary

PRESENT:

12:50 p. m.

COMMISSIONERS:

Chairman Seaborg  
Commissioner Ramey  
Commissioner Tape  
Commissioner Johnson

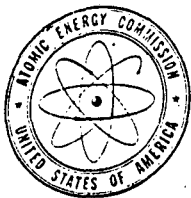
STAFF:

Mr. Hollingsworth  
Mr. Bloch  
Mr. Brown  
Mr. Hennessey  
Mr. Kull  
Mr. Rubin  
Dr. Fritsch  
Mr. McCool  
Mr. Quinn\*  
Mr. Kratzer\*  
Gen. Giller\*  
Dr. Totter\*  
Mr. DeRenzis\*  
Mr. Stanwood\*  
Mr. Reich\*  
Dr. Kavanagh\*  
Mr. Whitman\*

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REGULATORY INFORMATION MEETING 312

12:50 p.m., Tuesday, September 17, 1968, Chairman's Conference Room, D. C.

1. Mr. Price's September 16 Memorandum re Dow Chemical Company: Use of Steam Produced by Nuclear Reactors in Chemical Processes

Staff discussions with FDA are to continue and the Commissioners are to be kept informed. (DML-RPS)

2. Mr. Price's September 12 Memorandum re Consolidated Edison Company of New York, Inc. - Request for Exemption from 10 CFR 50.16 (b)

Mr. Price will defer action on the request. (ADRA)

W. B. McCool  
Secretary

1:00 p.m.

PRESENT:

COMMISSIONERS:

Chairman Seaborg  
Commissioner Ramey  
Commissioner Tape  
Commissioner Johnson

STAFF:

Mr. Price  
Mr. Hennessey  
Mr. Rubin  
Mr. Wells  
Mr. McCool

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Secretary

I sent a letter (copy attached) to Norman Ramsey, Acting Chairman, GAC, commenting on the report of July 17, 1968, on the 105th meeting of the GAC.

Helen flew from Dulles to London (Heathrow Airport) on Pan American flight No. 106, leaving at 7 p.m. and arriving at 8 a.m., Wednesday, September 18th.

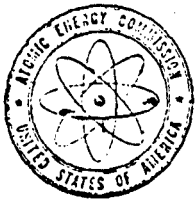
After dropping by my home to say goodbye to the kids (Dave, Steve, Eric, and Dianne) and Mrs. Winifred Dodd (who is staying with them during our absence in Europe) and her girls, I went to Dulles where Fritsch and I caught TWA flight No. 704 to London, which left at 8:15 p.m. and arrived at 8:30 a.m., Wednesday, September 18th.

Wednesday, September 18, 1968 - London

Fritsch and I were met in London by Bill Rice (AEC Representative in our London Embassy office). After going through customs, we met Helen and we all rode in an Embassy car to the Europa Hotel. Helen and I checked into our room, which had been held (at our expense) overnight, and Fritsch checked in later. Helen and I took a nap and then met Arnie for a bite to eat at 1 p.m. in the hotel restaurant. We then took the subway to the Tower of London, which was built by William the Conqueror. We toured the Tower of London complex, including the Tower itself. We saw the armor rooms in the White Tower, which included a number of armors worn by Henry the Eighth (a tall, as well as big, man), the sword rooms, and the jewel rooms (which include the crown jewels of numerous monarchs, and numerous other candlesticks, bowls, tableware, etc., made of gold). We saw the Bloody Tower, where many important prisoners were kept, including Sir Walter Raleigh, the Wakefield Tower (built by Henry the Third), the Bell Tower, Traitors Gate, the Lion Tower, the Middle Tower, the Byward Towers, and the Beauchamp Tower. We saw the engraving made by the prisoners in the stone walls in the Bloody Tower, the Beauchamp Tower, etc.

We then took a boat on the Thames to Westminster. On the way we saw the Fish Market (11th century), and the Monument of Christopher Wren. We went under the London Bridge, the Cannon Street Bridge, and the Summit Bridge (the smallest one). We saw the spire of St. Mary's church (designed by Sir Christopher Wren), went under two railway bridges and another bridge, saw the head offices of Lever Brothers (semi-circular), the dome of Old Bailey Criminal Court, Temple Arch (marking the boundary of the City of London and the City of Westminster), Captain Scott's ship (which went to Antarctica), went under the Waterloo Road Bridge (opened in 1945), saw the new (1967) Queen Elizabeth Concert Hall, the statue of Lord Nelson in Trafalgar Square, went under Charney Cross Railway Bridge (has the highest suicide rate of all the bridges), saw the Whitehall Court residence (George Bernard Shaw lived here), the Defense Ministry (contains a nuclear shelter, the first in London) behind which is No. 10 Downing Street (the official residence of the Prime Minister), the old building which used to be the headquarters of Scotland Yard (now the Defense Ministry), went under Westminster Bridge, and saw the Houses of Parliament with Big Ben. We docked at Westminster Pier and visited Westminster Abbey, which we toured rather thoroughly.

We then took a cab to Simpsons-on-the-Strand, where we had dinner. Fritsch then went on to a show, "Charley Girl," and Helen and I went for a long walk. We walked to and around Paccadilly Circus, down Regent Street, and across on Beak Street to Carnaby Street (a picturesque street in the Soho District), which we walked up and back, then on to Oxford Street, and back toward our hotel, which we reached by cutting across Hanover Square and Grosvenor Square.



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SEP 17 1968

Dr. Norman F. Ramsey  
Acting Chairman  
General Advisory Committee  
to the U.S. Atomic Energy Commission

Dear Norman:

We have the following comments on the letter of July 17, 1968, reporting on the 105th Meeting of the General Advisory Committee held at the Argonne National Laboratory on July 8, 9, 10, and 11.

Argonne National Laboratory

The Committee's report on the status of major programs at ANL and the favorable assessment of overall progress at ANL under Dr. Duffield's direction are very helpful.

The AEC agrees with the Committee's assessment of the value of EBR-II, especially since it is the only fast flux irradiation facility in the U.S. We also share your recognition of the importance of the various aspects of the EBR-II program in contributing to the overall Liquid Metal Fast Breeder Reactor (LMFBR) Program.

Because of ANL's position of leadership in fast reactor physics and safety research and development and in other areas of fast reactor technology, the AEC has looked to ANL for leadership in the high priority LMFBR program. Early in 1966, the AEC established the LMFBR Program Office at ANL to assist the Division of Reactor Development and Technology in the detailed planning and evaluation of the various elements of the LMFBR program. In addition, the AEC continues to support strong programs at ANL in the various areas of fast reactor technology for which ANL is specially qualified. The AEC recognizes the importance of the role the laboratory must play in providing strong management and technical support of the high priority EBR-II program and continually urges the laboratory to strengthen all the elements of the EBR-II program to maximize its contribution to the LMFBR program.

The AEC recognizes and accepts the requirement for "skilled and understanding" administration by the Division of Reactor Development and Technology in conducting reactor development programs and agrees with

(Approved at 9/13/68 Information Meeting 830.)

the Committee's recognition of the requirement for rather detailed AEC control over the operating program for EBR-II. We agree with the philosophy that the laboratory should be encouraged to exercise maximum freedom and responsibility for other phases of the fast reactor program such as investigation of advanced concepts. The AEC encourages this freedom to develop new ideas consistent with program plans, budgetary constraints, and the need for concentration of effort on high priority programs.

We are pleased to note your comments regarding substantial contributions to the technology of superconducting magnets and data analysis which are being made by programs conducted in support of High Energy Physics Research programs at ANL.

The very early user meetings held during design and construction of the ZGS were, we feel, an important stimulus for the extensive use of the machine by strong university groups noted in your report.

We share your view of the importance of work on transmissible osteosarcoma being conducted jointly with Argonne Cancer Research Hospital and hope that unequivocal demonstration of the transmission of this sarcoma by a virus will be made in the near future.

We are pleased to have your assessment of the Air Model and SO<sub>2</sub> study which ANL is conducting in collaboration with HEW and the City of Chicago and value your guidance regarding proper utilization of the talents at Commission laboratories in environmental pollution programs. The Chicago Air Model Study is one of several studies at AEC laboratories which are sponsored by the National Center for Air Pollution Control. These along with programs in environmental pollution sponsored by other federal agencies now underway at ANL, BNL and ORNL promise to provide a base for the development of programs which more effectively utilize the facilities and interdisciplinary talents available at our major laboratories.

We value your endorsement of ANL's plans to increase coordination of their extensive educational activities through the Center for Educational Affairs. This and the appointment by Argonne of Dr. Shelby Miller as Associate Laboratory Director for Education promise, in our view, to substantially increase the effectiveness of interactions between the laboratory and neighboring universities.

National Accelerator Laboratory Program

Since your early July briefing from Dr. Wilson several changes have occurred in connection with the House limitation to A-E only and \$7.1 million in FY 1969 for the 200 Bev accelerator project. The

Senate removed the A-E only restriction and added \$12.9 million in appropriations in line with Congressman Price's special Subcommittee Report and recommendations. The Senate - House conferees subsequently agreed to remove the A-E only restriction and appropriate \$12.1 million in new funds for the project. This together with \$2.5 million in FY 1968 carryover funds will make \$14.6 million in construction funds available for the project in FY 1969. The conference report subsequently passed both the House and Senate in late July and was signed by the President on August 12, 1968.

Meanwhile on July 31 Dr. Wilson met with the Commission to express his concern over the FY-1969 limitations and especially the possible delay in his five-year construction schedule which even the compromise authorization may cause. The Commission unanimously affirmed its support of his schedule and stated that it would use its best efforts to obtain the funds necessary to complete the project in accordance with that schedule.

#### Systems Analysis Study for Power Reactors

Some of the assumptions which led to questionable results in the early computer runs have already been corrected and refinement is continuing. We do not intend to make any release of information based on this system analysis unless the limitations of the analysis are carefully delineated. It will probably not be possible to avoid substantive discussions with the Bureau of the Budget. Such discussions will include strong reservations on our part about the state of the method and the assumptions used. We will request that this information be for BOB use only.

#### Meeting with the Advisory Committee for Biology and Medicine

We are pleased that the GAC and the ACBM were able to discuss a number of important issues in considerable detail during your joint meeting and have the following comments on the report of this meeting transmitted to me in the letter of July 19.

The Commission has been informed by the Secretary of Health, Education and Welfare, who is the Chairman of the Federal Radiation Council, that the Council will hold a meeting in September to consider its position on the matter of exposure standards for uranium miners. At that time the Council will have available for its review the FRC staff report on progress in this area over the past year including research and development, mine air sampling, and the economic implications of a .3 WL standard. The views of the GAC and the ACBM support our own, and we expect to recommend to the Council that the 1 WL be maintained.

The Commission concurs in the comments by the GAC and ACBM regarding special requirements associated with the development of agricultural aspects of an Energy Center. We would note, however, that the Energy Center concept could be employed in an industrial complex and, in such cases, the concept would not be dependent on agricultural developments. It is further noted that cost predictions for Energy Centers, as in other advanced concepts, should be viewed in perspective pending further validation.

Production of Heavy Radioisotopes

We appreciate the special review by your Ad Hoc Committee under the Chairmanship of Manson Benedict of our program for the production of heavy radioisotopes and the strong support given to the program by the GAC in its approval of the report.

Steps taken to implement this program include Commission authorization to proceed with two high-flux charges in a Savannah River reactor to produce californium 252 from intermediate materials produced in the curium 244 production program. Cf-252 produced during the campaign, as well as Cf-252 recovered from Cm-244 program residues, will be used in a program to develop applications and evaluate the market for Cf-252. Arrangements are being worked out for providing Cf-252 to potential users and establishing criteria and procedures for distribution.

As noted in the report only limited quantities will be available for the next few years (HFIR production plus the SR program) and we are taking steps to assure that each request for Cf-252 is carefully reviewed and scarce material is used in projects which promise best to advance Commission programs in this area.

Full consideration is also being given to a continuing Commission research and development effort pertaining to various aspects of production of Cf-252 in quantity, such as measurement of nuclear cross sections, design of the proposed resonance reactor, separations, and large scale target and source fabrication. Work has started at ORNL to obtain calutron separated isotopes of curium for cross section measurements of importance to the SR program.

As noted by the Subcommittee, substantial information remains to be obtained to enable the Commission to determine the appropriate Cf-252 production course to follow after completion of the two high-flux charges, including modifications to a reactor for resonance mode operation.

Dr. Norman F. Ramsey

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Thermionics

We are pleased to have the GAC's favorable assessment of progress toward achieving a thermionic reactor experiment in the mid-1970's and of the effectiveness of the centralized management of AEC's thermionic program being provided by the Space Nuclear Systems Division.

GAC's assessment of the level of support provided by the Commission for thermionics research agrees substantially with our own conclusions. It appears from the FY 1970 budget limitations, however, that the program pace may be slower than the schedule presented to the GAC during your review of thermionics.

We have noted the comments regarding the importance of further development of heat pipe technology and plan to continue our support of this work.

Your consideration of this program at this time and the valuable report developed by Mr. Vesper's subcommittee on the basis of their review of the thermionics program are very much appreciated.

Cordially,

(Signature)

Chairman

bcc: Chairman Seaborg (2) ←  
Commissioner Ramey  
Commissioner Tape  
Commissioner Johnson  
General Manager (2)  
Secretariat (2)



Seaborgs at the Tower of London, September 18, 1968

Thursday, September 19, 1968 - Brussels, Belgium - Cologne, Germany

Helen and I had breakfast in our room (No. 530) at the Europa Hotel in London. Fritsch, Rice and I rode to the Heathrow Airport in an embassy car. Due to fog in Brussels, our Sabena aircraft hadn't arrived; so we transferred to BEA No. 462, which left London at 11 a.m. and arrived in Brussels at 12 noon. Myron Kratzer, who had flown overnight from Dulles, joined us in our flight to Brussels.

We were met by Ted Iltis and rode to the U.S. Mission to the European Communities in an embassy car. Here we were met by Jim Goodby (Schatezel was away in Paris because Ambassador George Ball was there). Fritsch and I rode with Minister George Vest to the Chateau Val Duchesse in a U.S. Mission car. Kratzer, Iltis and



Goodby followed in another car. On the way, Vest mentioned Schaezel's hope that the U.K. would explore their cooperative program on the gaseous centrifuge program on a broader scale with European partners rather than with only Germany and the Netherlands. This is one of the U.K.'s best cards and they should play it prudently.

At the Chateau Val Duchesse we were met by Fritz Hellwig (Vice President of the Commission of the European Communities), Emmanuel Sassen (Member of the Commission), Wilhelm Haferkamp (Member of the Commission, responsible for energy policy, supply agency and safeguards), Cancellario D'Alena (Director General, Supply Agency), Fernand Spaak (Director General for Energy), Pierre Kruys (R&D Division, Water Reactors), Axel Herbst (Director General, Foreign Relations), Piero Squartini (Member of Rey's Cabinet, responsible for science and technology matters), Walter Pauly (Director, Foreign Relations in Science, Technology and Nuclear Affairs), Arnold DeStordear (R&D Division, Fast Reactors), and Pierre Marien (R&D, High Temperature Gas Cooled Reactors).

We went to lunch, which was not followed by any speeches, only a toast by Hellwig. After lunch we retired to an informal room (the same room where we met on previous occasions for informal discussions). Hellwig and I made short, informal statements on the value of our meeting like this. He brought greetings from President Jean Rey and Commissioner Gaetano Marino who couldn't be present. At my request, Hellwig described the present status of the Community and the Euratom budgets, their problems in conducting nonnuclear work in the Community laboratories, and their problems of organization of fast reactor programs.

After Hellwig had to leave, Haferkamp raised the question of why the U.S. limited them to obtaining 50% of the plutonium from the U.S. utilities, and why we sell some plutonium to our industry for \$10 a gram when we charge them \$43 a gram. I explained the equity of the 50-50 sales arrangement and that the \$10 price is a subsidized price to support our research program and that they could do the same for their industry if they wished.

We also discussed the IAEA-Euratom safeguards problem. I suggested a cooperative program between the U.S. and Euratom on safeguards research. I explained our Cascade Improvement Program and the difficulty of their competing with our incremental U-235 fuel price. I asked about their plans, if any, to build enrichment plants and they said a study of their policy would be completed by the end of the year.

After the meeting, we walked around the grounds, taking some pictures and movies. Kruys talked with Kratzer, Iltis and me about the possibility of a cooperative research program at the Hanford PRTR in which Euratom would get the benefit of a reduced plutonium price.

We visited the Chapel of St. Anne on the hill behind the Chateau. This was built in the 12th century. The resident caretaker showed us through the church.

We said goodbye and Fritsch, Iltis, and I rode to the airport, taking a tour on the way, including a ride through the Foret de Soignés (Forest of the Well Cared For). Fritsch, Iltis, and I had dinner in the airport restaurant.

I returned the call of John Macy at the White House and learned that President Johnson wanted to nominate Captain Francesco Costagliola of the JCAE staff to the short Commissioner term (nine months, to June 30, 1969) on the recommendation of Senator Pastore. I expressed some doubts and suggested that Macy call Tape, after which I would call him (Macy) from Cologne.

Kratzer joined us and we all flew on Sabena flight No. 749 to Cologne, leaving at 7:40 p.m. and arriving at 8:20 p.m. We were met by the Minister of Economic Affairs Edwin G. Holine and Dr. William Williams (Science Attaché) and Nuel Pazdral (William's assistant). Fritsch and I rode to the Errara Hotel in Bad Godesberg in an embassy car.

Helen had spent the day in London. She visited Buckingham Palace, Queens Gallery, Bird Cage Walk, Westminster Abbey, No. 10 Downing Street, Trafalgar Square, Convent Garden, Drury Lane, Old Curiosity Shop, Dickens House, and the British Museum. She flew to Cologne on Lufthansa No. 227, leaving about 7 p.m. and arriving about 8 p.m. She was met by Edwin Moline and Mr. and Mrs. Williams. Mrs. Williams drove her around Bad Godesberg, including the hills on the opposite side of the Rhine River, before bringing her to the Errara Hotel.

We all (except Moline) assembled in our hotel suite while Fritsch and I put through a call to Washington. I talked to Rubin about various small items of business, and then to Tape who had seen Macy about the possible Costagliola appointment. He had expressed doubts to Macy about this and we arranged to discuss it again tomorrow.

Kratzer and Iltis also stayed at the Errara Hotel.

Friday, September 20, 1968 - Cologne - Hamburg, Germany

Helen and I had breakfast in our suite overlooking a marvelous view of the Rhine. Unfortunately, it was a rainy day. Petersburg (where Queen Elizabeth stayed) was visible on a hill across the river. The car ferry across the river was just below our hotel.

Fritsch, Williams, and I, in an embassy car, followed by Kratzer and Iltis in another car, rode to the Julich Research Institute. On the way, Williams showed us a copy of a FORATOM report showing the advantages of Europe building a gas centrifuge plant for uranium enrichment for reactor fuel.

We were met at Julich Research Center by Alfred Boettcher (Technical Director) and Alexander Hocker (Administrative Director). We went to the conference room, where we met with Rudolf Shulten (Head of the Institute of Reactor Development), Deputy Director H. J. Stöcker (Hans-Jochen Institute for Reactor Materials), H. Kramer (Project Division), Wemer Haugg and Walter Schröck-Vietor (Director, Project Division). We were briefed on the AVR by Shulten. The AVR (Pebblebed reactor) develops temperatures as high as 850<sup>o</sup>-980<sup>o</sup> C, with steam temperatures of 550<sup>o</sup> C. The follow-up reactor, THTR, will have a capacity of 300 MWe and is to be started perhaps next year. It will operate at a temperature of 750<sup>o</sup> C with helium cooling, and the fuel will be either low-enriched uranium or the thorium-uranium cycle. On low-enriched uranium it will have a conversion ratio of 0.7, corresponding to fuel utilization 2.5 times that of water cooled reactors. This will scale up, e.g., to 1200 MWe, very well. This has on-line reloading (which prismatic fueled HTGR does not), and a two times smaller fuel inventory than HTGR. The AVR has 500-900 curies in primary cooling loop (compared to 9 curies in Peachbottom).

The AVR and the THTR will not have containment, and in this, will be similar to the PSC reactor.

Stöcker, who spoke next, told a story about how he wrote me (about 1949) and I accepted him for work in my laboratory at Berkeley, but he couldn't raise the

travel money so he didn't come (he went to France) - he took this occasion to thank me. He explained the fuel elements utilized in these reactors concepts. He compared the sphere (AVR, THTR) and prismatic (HTGR) fuels, using charts, which he gave us, and samples of the AVR and THTR fuels, which he showed us. Irradiation tests at fluences of up to  $5.3 \times 10^{21}$  have been conducted. NUKEM manufactures the fuel spheres. A group of utilities are apparently interested in proceeding with the construction of the THTR.

Kramer described the plan for the next five years. He explained the advantages of the direct cycle helium turbine compared to the indirect cycle turbine (10-15 percent less capital cost). He estimated costs of 3.0-3.5 mills per kilowatt hour (helium turbine). They hope to have bids in 1974 for the first commercial station, which would go into operation in 1980. The plant would have 46 to 48 percent thermal efficiency, and will use cooling towers.

Using slides, Boettcher described a computer program to optimize the economics of the German electrical grid including various types of reactors. The HTR (ST), with a steam turbine, is about equal to the fast breeder with oxide fuel. Eventually, the HTR (HT), with a helium turbine, and the fast breeder with carbide fuel, which are about equal, will take over. The HTR's would be on thorium fuel cycle. With a closed plutonium market, the HTR (HT) runs way ahead of the fast breeder-carbide fuel. He also presented slides of computer results on the USA grid to the year 2020, including the fast breeder, water cooled reactors, the molten salt reactor, conventional fueled plants, and the HTR. The molten salt reactor came out very well. We should make such comparative analyses in the U.S.! The steam cooled fast breeder is dropping out of favor in Germany. The gas cooled fast breeder with a helium turbine has good potential (oxide or carbide fuel). The General Atomic HTGR and the gas cooled fast breeder seem to be designed for too low temperature to make it feasible to operate a helium turbine. Boettcher will give a paper on this at the AIF-ANS November meeting.

After the briefing, we visited the AVR. Claus-Benedict Von der Decken and H. J. Hantke (Brown-Bover-Krupp) of the AVR group joined us. Ed Nephew of ORNL also joined us. We rode on a bus to the AVR reactor site. Peter Hartmann (Manager of the AVR) gave us written material and briefed us on the history of the AVR. Shulten briefed us on the AVR. Hantke continued the briefing, describing start up and characteristics of AVR operation.

We then went across to the AVR itself (shut down at the moment for some repair to fuel-handling machinery), where Hantke showed our group around - also with us were Hartmann, Von der Decken and some of the others. We took some pictures and movies.

We then rode in to Julich where we had lunch at the Hotel Kaiserhof. Here I took my phone call from Tape. He had discussed the possible Costagliola appointment with Ramey, who also took a dim view of it. Tape will call Macy and tell him about our reservations, but if Pastore wants an Italian appointed, and if this is his best suggestion, we can live with it. Present at the lunch were our group (Fritsch, Kratzer, Iltis, and Williams), Boettcher (our host), Shulten, Hocker, Stöcker, Haugg, Kramer, Schröck-Vietor, Hartmann, Hantke, Von der Decken, and Nephew.

Fritsch, Iltis, and I then rode back to Cologne, followed in the second car by Kratzer and Williams.

I met Helen in the Wiesel Restaurant (across from the Dom, the Cologne Cathedral), where she was finishing lunch with Mrs. Edwin G. Moline (wife of the U.S. Minister

of Economic Affairs) and Mrs. Williams. During the morning, Helen had visited Remagen (where the Allies crossed the Rhine during World War II), an old church in Bonn (with excavations beneath) where the men and women were segregated, the Landeswerk Museum in Bonn (containing Neanderthal man and archeological exhibits, art exhibit, coin exhibit), and the Beethoven House in Bonn (which they didn't enter). All of us, joined by Nuel Pazdral (Williams' Assistant) toured the Cologne Cathedral under the guidance of Sue Maitek. The Cathedral was started in 1248 and the building continued, intermittently, for over 600 years. It was largely spared from World War II bombing and is one of the best huge cathedrals in Germany. After the tour, we visited the neighboring Roman-German Museum in which we saw a mosaic floor dating from about 50 A.D. which was uncovered in 1941 during the construction of a bomb shelter. We then walked to a portion of a Roman wall.

Helen then rode with Mrs. Moline and Mrs. Williams and Iltis to Dusseldorf airport to catch Lufthansa flight No. 17, with Iltis, to Hamburg, leaving about 8 p.m. and arriving about 9 p.m. Fritsch and I rode with Pazdral to Cologne airport to catch Lufthansa flight No. 14 to Hamburg, leaving about 6:40 p.m. and arriving about 7:50 p.m. Williams, who had ridden to the airport with Kratzer, flew with us to Hamburg. Kratzer took a flight from Cologne to Vienna. We were met in Hamburg by Commander and Mrs. Patrick Maveety of the U.S. Naval Liaison Office. Mrs. Maveety stayed to meet Helen and Iltis, while Fritsch, Williams, and I rode in an embassy car with Maveety to the Vier Jahreszeiten Hotel.

I called Tape and learned that the appointment of Costagliola had been announced this afternoon. I received a State Department cablegram saying that I should postpone my visit to Lisbon - apparently Kaulza de Arriaga (head of the Portuguese AEC) is a possible successor to Salazar (who is near death) and my visit at this time might be interpreted as U.S. support for Kaulza. (Salazar died July 27, 1970, but was actually superseded in 1968 by Marcello Gaetano.) When Helen arrived at the hotel with Mrs. Maveety, she and I took a walk.

#### Saturday, September 21, 1968 - Hamburg, Germany

Helen and I had breakfast in our room (No. 332) at the Vier Jahreszeiten Hotel. We rode with Maveety to Deutsches Electronen Synchrotron (DESY), with Fritsch, Iltis, and Williams following in another embassy car. We were greeted by Dr. Teucher (Associate Director of DESY) and others, and then went into a conference room. The four-year-old daughter of Dr. C. C. Ting presented Helen with a nice bouquet of flowers. Those present included: Teucher, C. C. "Sam" Ting (MIT Physicist), H. O. Wüster (Board of Directors, DESY), Sohngen and Herman Kumpfert (Synchrotron Operations and Improvements), G. Weber (Electron scattering experimentalist), Eugene Engels and Mervin Wong (Harvard), Sanders and Cohen (MIT graduate students), Gerald Bennett (Brookhaven), Bienlein, Joos (Managing Director) and Woloshek.

We were told that DESY has a capital investment of about \$40 million and an operating budget of about \$11.5 million. There are 147 scientist members of the DESY staff, plus about 40 visiting scientists. The total staff numbers 858. After an historic account and a general description of DESY, we took a tour of the facility and its experiments, under the guidance of Teucher, with the entire group who had been in the conference room accompanying us. Among the programs we saw were: Weber's electron-proton scattering experiments; Ting's photoproduction of electrons and positrons to test basic electromagnetic theory; Wong's streamer (spark) chamber detection of the products of 4 to 7 GeV photons; Weber's experiment to determine the form factor (charge distribution, if any) of the neutron and the characteristics of the reaction  $e^- + p \rightarrow e^- + p + \pi^0$ ; the new

360 MeV injector for DESY; and Dr. Kumpfert showed us the Klystron testing area. We took some pictures and movies.

At the end of the tour, as we were taking our leave, Hans Schmerenbeck (Technical Manager, Der Gesellschaft für Kernenergieverwertung in Schiffbau und Schiffahrt mbh Hamburg and Geesthacht, GKSS) joined us. He rode with Helen, Maveety and me to Kiel in the Embassy car, followed by Fritsch, Williams, and Iltis in a station wagon. We passed the Freilicht Museum (reconstructed old houses from all over Denmark), just south of Kiel. We passed through Kiel just outside of the downtown district.

At the Otto Hahn, we were met by Gerhard Theune (Captain of the Otto Hahn), Dieter Ulken (Director of the Institute for Technical Installations of the GKSS), Keinrich Foch (Chief Engineer of the Otto Hahn), and Klaus Dieter Henning (Safety Officer of the Otto Hahn).



Visit to the Nuclear Ship, Otto Hahn, Kiel, Germany, September 21, 1968.

L to R: Hans Schmerenbeck, Seaborgs, Captain Gerhard Theune, William W. Williams, Dieter Ulken

We all sat in the lounge, which contained a fine painting of Otto Hahn (his last, and hung just yesterday), and talked a while. In the main dining room, we had an excellent two-hour lunch. Following lunch, we returned to the lounge for coffee and a technical briefing. We were told the Otto Hahn cost \$14 million (the

original estimate); if they were to build three or four such nuclear cargo ships, at about 40,000-50,000 horsepower, they would be economically competitive. They are considering a boiling water reactor. The Otto Hahn has an advanced pressurized water reactor with internal steam generation. We then toured the Otto Hahn (an ore carrier), including the reactor area inside the secondary containment, the control area, the machinery and propeller shaft area, and the bridge area. We took pictures and movies.

We then took our leave of the ship. Fritsch, Maveety, Williams, Helen, and I rode back to Hamburg in the station wagon. Iltis and Schmerenbeck rode back in the Embassy car.

Helen and I had dinner at Mellingburger Schleuse, a charming, rustic restaurant on the outskirts of Hamburg, with Fritsch, Mr. and Mrs. Maveety, and Bill Williams. Following this, we visited the Reeperbahn.

Sunday, September 22, 1968 - Hamburg, Germany and Vienna, Austria

After sleeping late, Helen and I had breakfast in the Vier Jahreszeiten Hotel grill. Pat and Darle Maveety came by and drove us around to see the sights of Hamburg in their Dodge Charger.

We drove by St. Peter's Church, which is on the site of Hamburg's first church built in 811, on a high point in the area. We drove down Schoenaussicht where we had good views of the towers of Hamburg (church spires, etc.), across the outer Alster. We saw the Rathaus, with the traditional Ratskeller. We saw old houses (medieval), bearing such dates as 1641, 1698, etc. (Most of Hamburg was destroyed by a fire in 1842 and much was destroyed in World War II, but some areas, such as this, have remained intact.) We drove through the fish market area (empty at the time we were there) and viewed the boat docks on the Elbe River. We then visited the Altonna Museum, where we saw old German houses (combination living quarters and barn), old German household goods, archeological materials and digs from nearby areas showing material dating as far back as 10,000 B.C., anthropological exhibits, models of boats, stuffed animals, etc. We drove out on the Elbechaussee, a nice road along the Elbe, and back. We saw the huge statue of Bismarck. Pat Maveety then dropped Mrs. Maveety off at their home and drove us to the airport. Helen caught Lufthansa flight No. 154 to Munich, leaving about 6:15 p.m. and arriving at about 7:15 p.m. From Munich she took Air Austria No. 414 to Vienna, leaving about 9 p.m. and arriving about 10 p.m.

I had a bite to eat in the airport restaurant, then went with Maveety to the Pan American lounge to participate in a news interview. The newsmen were Herbert Schrader (Hamburg Abendblatt) and T. von Randow (Die Zeit). Fred Irvin (Public Affairs Officer of the U.S. Consulate) and Gerhart Lecket (USIS) were also present. The questions and answers were tape recorded. These included questions about the possibility of still heavier transuranium elements (I described the prospects for element 114), budget cuts in U.S. science (I said that so far it wasn't bad for AEC), effect of budget cuts on the 200 BeV Accelerator (I said not too bad), need for a 300 BeV Accelerator in Europe if the U.S. builds this 200 BeV Accelerator (I said high energy physics can profitably use both), the future of the peaceful uses of nuclear energy (I described the nuclear electric power program in the U.S., nuclear desalting, the Nuplex concept, use of radioisotopes in medicine, agriculture and industry, use of radiation for food preservation, nuclear energy in space including nuclear rockets and nuclear auxiliary electric power, and the peaceful uses of nuclear explosives), should Germany sign the non-proliferation treaty (I said yes, it is to the advantage of nuclear and

non-nuclear weapons states, and the NPT should be followed by nuclear arms cutback by nuclear weapon states), and the role of the IAEA (I emphasized its impending role in NPT safeguards).

At the airport I met Fritsch's cousin, Frederik Bernhardt and his wife and son.

Fritsch and I flew on Lufthansa flight No. 217 to Frankfurt, leaving about 7:30 p.m. and arriving about 8:15 p.m. and from Frankfurt to Vienna on Air Austria flight No. 404, leaving about 9 p.m. and arriving about 10:15 p.m. Eugene Bailley of the U.S. Consulate met us at the Frankfurt Airport in order to lend us aid in transit.

We were met at the Vienna Airport by Myron Kratzer, Jack Vanderryn, and Kurt Fink. Helen had arrived and rode in to the Intercontinental Hotel with me. Kratzer and Vanderryn accompanied us. (Fritsch followed in another car.) We checked into rooms 1141-43, the same suite as last year. Our driver is Franz Burgeth.

Monday, September 23, 1968 - Vienna, Austria

Helen and I had breakfast in our suite at the Intercontinental Hotel. I then went to the U.S. Embassy (Boltzmanngasse 16) where I met AEC Commissioner Bill Johnson, Ambassador Henry Smyth and Verne Lewis. We called on Ambassador Douglas MacArthur II - a courtesy call, during which we discussed possible problems that might arise during the IAEA Conference. At the Embassy I met Hans Klontz, our neighbor from 1964 to 1967 at 3821 Gramercy Street, N.W., Washington, D.C. - they still own the house but he is assigned here now as Medical Officer at the Embassy.

I rode with Smyth to the U.S. Mission Headquarters (Schmidgasse 14). He said the U.S. will probably introduce a general resolution empowering the Director General to study the role of the IAEA in supervising the peaceful uses of nuclear explosives. At the U.S. Mission I greeted Susan Gavin of the London AEC office and Norma Jaeger of the U.S. Mission staff. I read my mail and the IAEA papers. Bill Johnson told me about his trip to Italy, to the Selni reactor. (Selni is one of Italy's first nuclear power stations, the Westinghouse-designed SELNI reactor was shut down in April 1967 for extensive repairs; it was not returned to service until May 1970.) He said this would take two years to repair and he thinks the U.S. should give them advice on the safety aspects of the repair job. I told him about Alfred Boettcher's analysis of the future course of nuclear power in the U.S. and Germany in which high temperature gas cooled reactors and the molten salt reactor may play significant roles.

After a bite to eat in our suite, Helen and I went sightseeing, with Franz as our guide. We visited the home where Josef Haydn lived from 1793 until his death in 1809, now the Haydn Museum (at Haydngasse 19). We drove by a portion of the original wall around Vienna, dating to the time of the Turkish invasion. On top of this is a house in which Beethoven lived from 1804 to 1805 - the Dreimaderlhaus at Molkebastei 8. Here Beethoven composed his 4th, 5th and 7th Symphonies and "Fidelio." (Also the home of three ladies, all of the same family, who were all courted by Schubert.) We passed the Schubert birthplace (Nussdorfer Strasse 54) which is now a museum being renovated. We then went by another Beethoven house (in Heiligenstadt), a summer home situated a little distance from the central city, where he lived in 1817 at Pfarrplatz No. 2 - his favorite tavern still stands at Pfarrplatz No. 5, where they threw him out because he made so much noise. Here also is the Heiligenstader Kirche (St. Jacob's Kirche) that includes Roman graves of the second and third centuries.

While looking for Beethoven houses, we walked down Eroicagasse where we saw a typical small wine-making operation. We then walked down Probusgasse to No. 6, where Beethoven probably lived when he wrote the famous "Heiligenstadt Testament" to his brothers, a letter dated October 6, 1802, but never sent, in which he explained his increasingly irritable and puzzling behavior. He said his worsening deafness (he was then 32) had driven him into isolation and fear of society, a situation so desperate for him that he had contemplated suicide. He decided against this because of his stronger need to write music, and to leave the world having written as much music as possible. At the back of this house is another group of rooms in which he lived. We then rode by Grinzinger Strasse 64, where he lived in the summer of 1808 with the poet Franz Grillparzer (and composed the "Pastoral Symphony," the Sixth). We then went to Kahlenberger Strasse 26 (a delightful little palace that once belonged to Madame Fuchs, governess of Maria Theresa, but today a winery in the courtyard), where Beethoven spent the summer of 1817.

We then drove through the Vienna Woods on Höhen Strasse to Restaurant Bellevue, where we had a fine view of Vienna because it was an unusually clear day. We took movies and snapshots here. Franz drove us to a parking lot, from which Helen and I hiked through the Vienna Woods up to Hermannskogelwarte about 30 minutes up and 30 minutes down. There is a tower on top now used for television antennas.

Helen and I hosted a dinner in the Maria Theresa Room of the Hotel Sacher for Dr. and Mrs. Sigvard Eklund (he is Director General of IAEA), Dr. and Mrs. Harry Brynielsson (he is the Swedish delegate to the IAEA and Managing Director of the Swedish AB Atomenergi), Dr. and Mrs. Erkki Laurila (he is the delegate from Finland and Chairman of their Atomic Energy Commission), and Hans Henrik Koch (delegate from Denmark and Chairman of the Executive Committee of the Danish Atomic Energy Commission). Laurila told me he is trying to get his government to replace him as head of the Finnish AEC, or else "pay him more for doing the kind of work that he has to be ashamed of."

Later Helen and I took a walk along Kärtner Strasse.

Tuesday, September 24, 1968 - Vienna, Austria

After Helen and I had breakfast in our suite, Fritsch, Helen and I rode to the U.S. Mission headquarters, where Helen left us to go sightseeing and later to attend a luncheon at the Sacher Hotel given by Mrs. Smyth. I read AEC papers sent from Washington and presided over a meeting of the U.S. Delegation to the General Conference of the IAEA. Present at the meeting were: Alternate Representative Smyth (who reported on the September 20th Board of Governors' meeting and the IAEA General Conference agenda), Lewis (who reported on the Conference schedule and procedures), Commissioners James T. Ramey and Wilfred E. Johnson, and Herbert Scoville (Assistant Director U.S. Arms Control and Disarmament Agency, ACDA); Congressional advisers Senator Bourke B. Hickenlooper and Representative Craig Hosmer and Congressional staff adviser George Murphy; Special adviser I. I. Rabi; Advisers Kratzer, Howard Brown, Lawrence O'Donnell, William Yeomans, and Fritsch of the USAEC; Donovan Zook and Sidney Friedland of the State Department; Larry Grahl, Philippe Jacques, Edward Noziglia and Vanderryn of our Permanent Mission to the IAEA; and Robert Rochlin of the ACDA.

I met in my U.S. Mission office with Dr. Chen-Hsing Yen (Chairman, Atomic Energy Council, Executive Yuan, Taiwan), Chen-Hwa Cheng (Secretary General, Atomic energy Council), Dr. Shih-Mou Lee (Commissioner, Atomic Energy Council), Bernard Hsiao-Ching Kiang (First Secretary Advisor to Resident Representative), along with



Fritsch and Noziglia. They told us about their country's interest in nuclear power. Yen will visit Washington on October 20th to 21st to be further briefed on this subject.

Together with Alternate representatives Ramey, Johnson, Smyth, Scoville and Lewis, I called on Manuel Sandoval Vallarta, delegate from Mexico, to pay our respects on his impending election as President of the 12th General Conference. We discussed the possible dispute between Iran and the UAR over the seat on the Board of Governors, and the U.S. resolution suggesting study of the IAEA role in implementing the peaceful uses of nuclear explosives provision of the NPT.

Smyth, Sandoval Vallarta, and I then rode to Eklund's home for lunch. Present were Eklund, Rear Admiral Oscar Quihillalt (delegate from Argentina), Sir Philip Baxter (delegate from Australia), Georgy P. Arkadiev (an alternate delegate from the USSR), Bertrand Goldschmidt (a French alternate delegate), John Hill (United Kingdom delegate), Sandoval Vallarta, Jan Neuman (delegate from Czechoslovakia), Smyth, Arno Halusa (Austrian delegate), Michael I. Michaels (alternate delegate from the United Kingdom), Vikram Sarabhai (delegate from India), Robert Hirsch (delegate from France) and Vittorio Winspeare Guicciardi (U.N. Representative to the conference). At the conclusion of the luncheon, toasts were offered by Eklund, Quihillalt (President of the Board of Governors), and Neumann (outgoing President of the General Conference). During the coffee session in the living room, Arkadiev and Neumann engaged in prolonged earnest conversation. Dr. Igor D. Morokhov (USSR delegate) failed to attend the luncheon.

Smyth, Sandoval Vallarta and I rode to the Hofburg to attend the opening session of the Conference. Sandoval Vallarta was elected President by acclamation. Helen attended this opening session, sitting with Mmes. Smyth, Lewis, Hosmer, Scoville, and Vanderryn. The session included appointment of Committee Chairmen, election of Vice Presidents, etc. Liechtenstein, Niger and Zambia were admitted to membership.

Eklund made his annual statement. He made a strong defense of the NPT and the importance of safeguards. He pointed out that, so far, there has been no call on the IAEA to apply safeguards pursuant to the NPT. He suggested regional nuclear fuel reprocessing plants, in the interest of efficiency. He suggested a greater role of Seibersdorf Laboratory in developing safeguards. He hopes advanced nations will respond to Article IV of the NPT by increasing their contributions. He offered IAEA help for a U.N. Peaceful Uses Conference in 1970 or 1971, if requested. He suggested that Articles IV and V of the NPT are not sufficiently defined. He said he is surprised that the Conference of Non-Nuclear-Weapon States (NNC), at a meeting in progress in Geneva at this same time, recommended creation of a Committee of Experts to study and make recommendations concerning the applications of the peaceful uses of nuclear energy to developing countries. He suggested that some delegates to the NNC were poorly informed. He decried the NNC suggestion that there be a new international organization to supervise the peaceful uses of nuclear explosives. He quoted my statement, during my Senate testimony on the NPT, that peaceful uses of nuclear explosives require much more development before they can be applied.

Following Eklund's statement, Winspeare Guicciardi delivered a short message of greeting, after which the first session adjourned.

Helen and I went to the Japanese reception, in the Governors' Lounge of the IAEA Headquarters, across from the Imperial Hotel. I talked to Carlo Salvetti (alternate delegate from Italy) about the resolution that the Italians had been thinking about introducing to enlarge the Board of Governors - he said that he



M. Sandoval Vallarta and Seaborg photographed at the opening of the 12th General Conference of the IAEA, Vienna, September 24, 1968



At the opening of the 12th General Conference of the IAEA, Vienna, September 24, 1968

Marian Hosmer, Helen and Glenn Seaborg

won't have anything to do with this because his Minister is coming. We also discussed our problems concerning U.S. support of their PCUT plant and decided he might discuss this further at lunch with Commissioner Johnson.

Helen and I next went to a reception at the Brazilian Embassy (26 Prinz-Eugenstrasse). Here we talked to Chairman Uriel da Costa Ribeiro of the Brazilian National Nuclear Energy Commission, CNEN, Professor Luiz Cintro do Prado and members of the Brazilian legislature.

We then took a walk in the Stadtpark, which is just across the street from the Intercontinental Hotel.

Wednesday, September 25, 1968 - Vienna, Austria

After breakfasting in our suite, Helen and I went to the Hofburg. She visited the National Library in the Hofburg and then came to the Festsaal, where the session had already started.

Laurila of Finland spoke first. I spoke second, giving my prepared remarks, slightly shortened, including the message from President Johnson. This was followed by talks by Professor Horia Hulubei (Romania), Abraham J. A. Roux (South Africa), Kinya Niiseki (Japan), and Philip Baxter (Australia). During his remarks, Baxter mentioned the work they are doing in Australia on the gas centrifuge process for enriching isotopes.

I talked to the Turkish delegation. They would like a sister laboratory arrangement with a USAEC laboratory, even if this didn't involve U.S. financial help. (Actually, we have such an arrangement between Cekmece and Brookhaven.) Kratzer will explore this further. I also talked to Le-van-thoi, representative from Vietnam, who wanted to know whether they should notify the IAEA if the nuclear fuel is removed from the U.S. grant-aided research reactor at Dalat. Kratzer will talk to him about this.

I rode with Smyth to the French luncheon (Technikestrasse 2). Present, besides Smyth and me, were the French Ambassador to Austria Louis Roche (host), Hirsch, Goldschmidt, Joachim Pretsch (delegate from Germany), Hill, Rabi, Lorne Gray (alternate delegate from Canada), Sandoval Vallarta, Quihillalt, Eklund, Sarabhai, Jacques Errera (delegate from Belgium), Michaels, Neumann, Brynielsson, Karl Gruber (Austrian Chancellor's Representative to Parliament), and others. Smyth and Goldschmidt told me that the replacement (upon retirement at the age of 60) of Henry Seligman as IAEA Deputy Director for Research had already passed the Board of Governors and it was too late to reverse it. André Finkelstein of France will replace him.

I had a rather long talk at the lunch with Czech AEC Chairman Neumann. He asked if his visit to the United States might come next March or April, and I said he could come then or any time at his convenience.

We returned to the Hofburg for the afternoon session. The first speaker was Lazar Mojsov (of Yugoslavia), who spoke in English, decrying the invasion of small countries by large powers!

The next speaker was Morokhov (USSR). He read a message from Alexsai Kosygin, which strongly supported the role of the IAEA in implementing NPT safeguards. He spoke of the nuclear arms limitation measures that the Soviet Union has sent for consideration by the UN General Assembly. He said that the Director General and

the Board of Governors should work out safeguards agreements with countries without waiting for the NPT to enter into force. IAEA could quickly prepare to carry out IAEA safeguards functions. The German Democratic Republic should be represented in the IAEA. Other functions, besides safeguards function, of the IAEA are also important. Peaceful nuclear explosives are also important. In the development of nuclear power in connection with the NPT, the IAEA will play a leading role.

The Soviet Union will build four nuclear power stations of 1,000 MWe unit size, with resulting power cost less than from fossil fuels. The use of enriched uranium is most advantageous. The Soviet Union is now ready to enrich uranium up to 2.5% to 5% uranium-235 for other countries - subject to guaranteed peaceful uses. The Soviet Union manufactures up to 50 radioisotopes, with 3,000 specifications and saves millions of rubles per year through their utilization. He mentioned the 70 GeV accelerator and collaboration with France and CERN, and Soviet success in fusion research. He said hydrology and FAO-IAEA programs of the IAEA are too broad in scope. The Seibersdorf and Vienna IAEA laboratories need review and reform.

John McCordick (Canadian delegate and Canadian Ambassador to Austria) spoke next, in French. I then returned to the hotel.

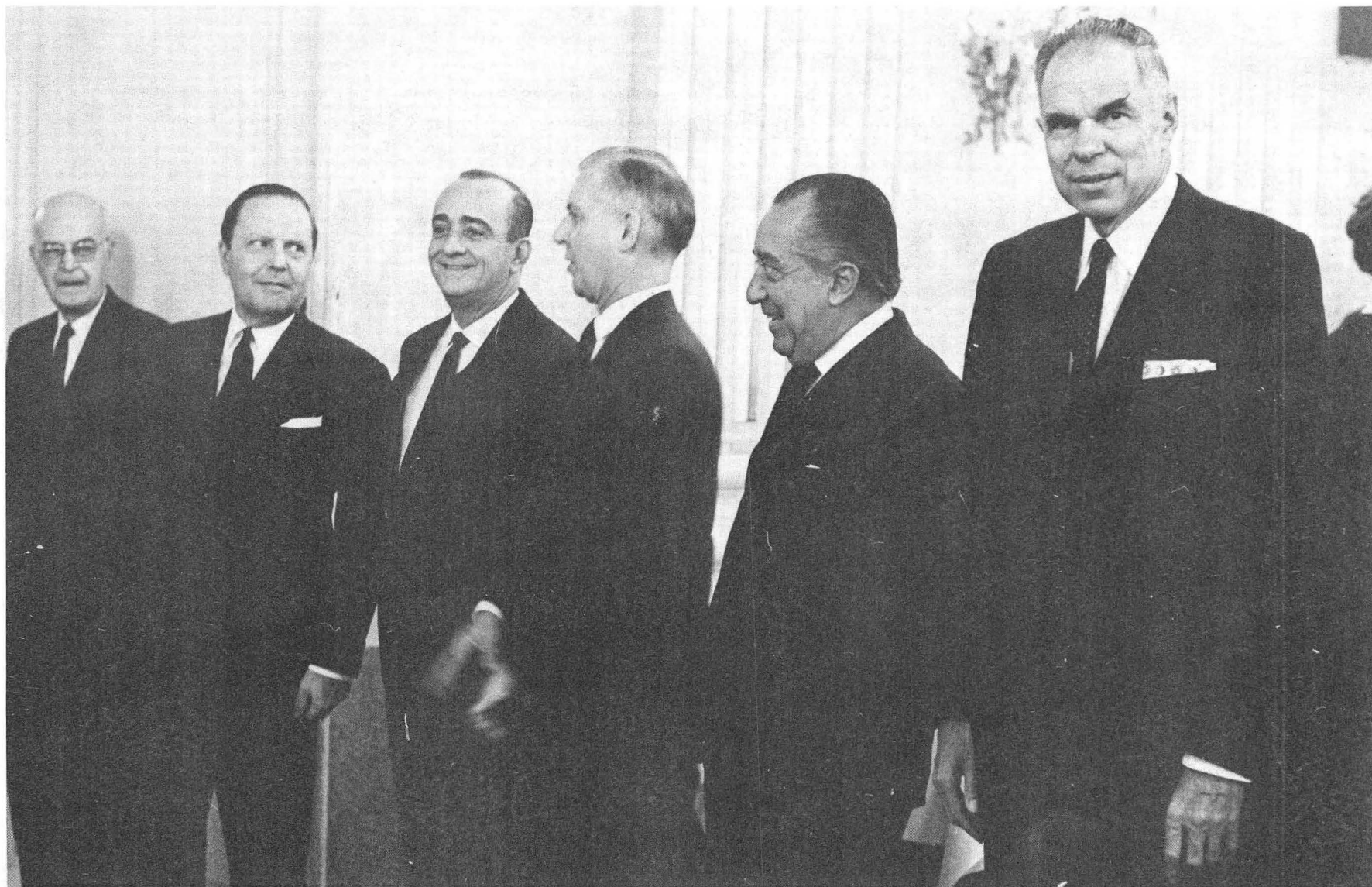
Helen and I rode with Fritsch to the Palais Auersperg (Auerspergstrasse 1) to attend the Western Hemisphere reception. I stood in the reception line with Sandoval Vallarta, Quihillalt, Ribeiro, Manuel Mujica Gallo (delegate from Peru and the Peruvian Ambassador in Vienna), and McCordick.



Helen and I meet at the IAEA Western Hemisphere Reception, September 25, 1968



12th General Conference of the IAEA, Vienna, Austria, September 25, 1968. Seaborg addressing the General Conference



Receiving Line at the Western Hemisphere Reception in the Palais Auersberg, September 25, 1968

L to R: Manuel Sandoval Vallarta (Mexico), Admiral Oscar Quihillalt (Argentina), Uriel da Costa Ribeiro (Brazil), John McCordick (Canada), Manuel Mujica Gallo (Peru), Seaborg



Glenn and Helen Seaborg visit with I. D. Morokhov, USSR (left), and other guests at the Western Hemisphere Reception in the Palais Auersberg, September 25, 1968





Guests at the 13th General Conference of the International Atomic Energy Agency Western Hemisphere Reception, September 25, 1968

Later in the evening I had a talk with Morokhov. He suggested that the U.S. and Soviet Missions should begin to talk to the IAEA secretariat about the arrangements for agreements between nonnuclear weapons states and the IAEA regarding safeguards covering peaceful nuclear power programs. We discussed the status of U.S.-Soviet talks on the peaceful uses of nuclear explosives in relation to the Limited Test Ban Treaty, and he thought these would be ready to convene in October. He said that he and Tape had worked out a plan for U.S. scientists to talk with Soviet scientists concerning U. S. scientists' participation at Serpukhov. He remarked that this is not related to the critical international situation but is related to the fact that the Soviets need U.S. help here. He said he agreed with the points I made in my talk today. I replied that I thought he made similar points and that Kosygin's and President Johnson's statements were similar in their content. He said he would like to see me in Moscow soon to continue our discussions. I replied I wasn't sure about this as a possibility. He said, in answer to my query, that Petrosyants is still Chairman of the State Committee on Peaceful Uses of Atomic Energy, and he hoped that this would be the case for years to come. I chided him for Petrosyants' failure to answer my letters. He acknowledged this, but pointed out that he and I had during the interim had a number of frank talks covering the points involved. He said he thought that U.S.-Soviet cooperation at Serpukhov could now go forward under our renewed agreement for cooperation.

I also talked to the delgate from Byelorussia, Dr. Andrei K. Krasin, who invited me to come soon to Minsk to see their scientific work.

Following our Western Hemisphere reception, Helen and I went to the reception of the Federal Republic of Germany (at the Embassy, Jauregasse 6), hosted by Joachim Pretsch and the German Ambassador and Mrs. Löns. We then attended the reception given by Monaco (Khevenhuller Strasse 9a), hosted by the Monacan delegate Cesar Solamito and the representative of Monaco.

Thursday, September 26, 1968 - Vienna, Austria

Helen and I had breakfast in our suite. The big news this morning is that Secretary Dean Rusk had signed the credentials for our delegation to the IAEA without prior consideration by the Senate. The Joint Committee on Atomic energy had acted, but the Senate had not. Some members of our delegation wanted to have our credentials withdrawn from the IAEA. I said I thought we should allow them to stand on the basis that we have been approved by the JCAE and the Senate action is merely a formality and there is little difference whether we have illegal status for three or four, instead of two, days.

I went to a room on the lower floor of the hotel for our press conference. Before the press conference I was interviewed for Austrian Radio by Roka. Questions were on the prospects of signing the NPT by France, Germany, Italy, Brazil, Spain, etc. I then participated in the press conference with Johnson, Kratzer and Rabi. Present were Roka (Austrian Broadcasting Corporation), Ljubitc (Austrian television), Paul Hofman (New York Times), Nino Lobello (New York Journal of Commerce), Ricco Labhardt (Neue Zeuricher Zeitung), W. A. Perger (Die Presse), Mlacnik (Austrian Press Agency), Fritz H. Baer (McGraw Hill), Erich Waha (Associated Press), Andreas Heltai (MTI - Hungarian News Service), Ernie Reed (CBS), Richard Ginalski (Polish Press Agency), Anatole Jaro (freelance writer), Wellington Long (UPI), Professor Vinzenz Ludwig Ostry (Concordia Press Club), V. Sas (Radio Free Europe), Winthrop Greene (Worcester Telegram), Hannelore Kubelka (ADN Berlin-East Germany), Josef Binder (New Ledger - New York), Gertrude Watzek (freelance writer), Geunther Schumann (Kernenergie - East Germany), and Dr. Pekarek (Wiener Zeitung).

After an introductory statement, I answered questions, focused, naturally, on the NPT, and particularly upon the ability of the IAEA to provide the necessary safeguards, considering the increased costs and number of inspectors required. There were additional questions regarding the impact of the Czechoslovakian situation and on the timing of the NPT and the resolution of the Euratom-IAEA safeguards differences. Finally, the question of the composition of the Board of Governors and a possible increase in its size was also asked.

Following the press conference I was interviewed further by Perger on the NPT and the prospects for delay of its ratification.

I took a walk in Stadtpark with Commissioner Johnson to discuss USAEC matters. Fritsch and O'Donnell later joined us and we took some movies.

I went to the U.K. lunch at Palais Pallavicini (Josefsplatz 3). Present were Sir Anthony Rumbold (U.K. Ambassador to Austria), Hill (co-host), George C. Laurence (Canadian alternate delegate), Ribeiro, Gunnar Randers (delegate from Norway), Laurila, Smyth, Pretsch, Eklund, Sandoval Vallarta, Baxter, Hirsch, McCordick, Koch, Professor Urs Hochstrasser (the Swiss delegate), Goldschmidt, Quihillalt, Lewis, Salvetti, Sarabhai, Arkadiev, Roux, and others.

After lunch I talked to Eklund. He said that in 1966 the Board of Governors had given Seligman a three-year extension (to February 1969) as Deputy Director for Research of IAEA. He will then be 60 - retirement age according to the rules and regulations of the IAEA. Therefore, especially in view of the definite Board action, he must retire. Eklund will retain him for an additional year as a consultant.

Eklund hopes the Board of Governors will create a Committee of the Whole of the Board to provide procedures for the agreements between the IAEA and non-nuclear weapon states concerning safeguards under the NPT before the NPT is ratified.

I went to the Hofburg and heard Sarabhai's talk on "Nuclear Power in Developing Countries." I was interviewed by Gordon Moir of the UN for possible use in the United States on both television and radio, on 1. the next steps in implementing the IAEA role in NPT, 2. the status of nuclear desalting plants, and 3. fields in which peaceful nuclear explosives might be used.

Kratzer and I talked to Albert Dollinger (alternate UN representative to the IAEA) who wants our resolution concerning Article V of the NPT and study of its role in implementation of peaceful nuclear explosives to include reference to conventional explosives (I told him this was not feasible or practical) and to include reference to the UN (Kratzer told him this is taken care of in all such resolutions by inference).

Kratzer and I talked to Hulubei about our memorandum on cooperation with Romania. We gave him two copies of a draft memorandum and he said he will mail us his reaction to it about the end of next week. He apologized for postponing his visit to the United States and said he thought he might be able to come in late October. We told him this would be fine. We spoke about the heavy water plant that they are purchasing from Lummus and Deuterium Corporation. He would prefer to buy directly from the United States rather than indirectly through Canada, if this is possible.

Helen and I went to the reception given by India in the Governors' Lounge of the IAEA Headquarters. We then went to the reception hosted by the Austrian

government at the Palais Schwarzenberg. We sat at a table with Hill and Hochstrasser. We met Kurt Waldheim, the Austrian Foreign Minister. (In 1971 Waldheim became Secretary General of the United Nations succeeding U Thant.) He described his recent statement at Geneva opposing the creation of a new international agency to handle the implementation of the NPT. He emphasized the IAEA can serve this purpose admirably. He is going to the United States soon and will meet with Secretary Rusk while there.

Friday, September 27, 1968 - Vienna - New York, New York

I had breakfast in our suite. Helen flew to Madrid, via Zurich, on Swissair flight No. 431, leaving Vienna at 9:45 a.m. and arriving in Zurich at 11:05 a.m., and Swissair flight No. 650, leaving Zurich at about 1 p.m. and arriving in Madrid at 3:30 p.m. She spent the remainder of Friday, Saturday, and part of Sunday sightseeing in Toledo and Madrid (including the Prado) and then flew to New York on a second section of TWA flight No. 93 (designated No. 6906), leaving Madrid about 2 p.m., September 29th and arriving in New York at about 7:30 p.m., connecting to Washington on the 9 p.m. shuttle.

I met in my suite with Usmani, together with Ramey, Kratzer and Brown. The conversation was very general, covering such topics as nuclear desalting.

Fritsch, Kratzer, Larry Grahl and I then went to the Italian Embassy where we met with Minister of Industry and Commerce Andreotti, Ambassador of Italy to Austria Ducci, and Salvetti. Andreotti wanted to discuss a possible resolution concerning a study of the IAEA Board of Governors, with a view to possible enlargement. The Arab and African countries had introduced a resolution at the non-nuclear conference in Geneva, which carried but with many abstentions, asking that the IAEA undertake a study directed at an enlargement of the Board with broader geographical representation. The Scandinavian countries and Japan also introduced a resolution at the NNC, which passed with more votes, directing a study by the IAEA of possible changes in the Board but not specifically pointed at enlargement or broader geographical representation. Andreotti said that the Arab and African countries have a draft resolution for possible introduction at the 12th IAEA General Conference which is similar to the one they introduced in Geneva. He said the Italians have a more moderate resolution, of which he gave us a copy, for possible introduction at this Conference. This was more general in its suggestion of a study to assess the need for revisions in the Board setup. Andreotti implied that, if we could agree to their resolution, it would help in their fight at home for Italian signing of the NPT. He assured me, in answer to a question, that although the Czechoslovakian affair has delayed the Italian signing, they will definitely sign the NPT somewhat later (i.e., at some time in the not too distant future). I told Andreotti that we favored Italian membership on the Board but were apprehensive of opening the issue of broad membership with its unpredictable consequences. I said, however, that their draft resolution seemed reasonable and that we would study it and give our answer before Andreotti spoke at the IAEA later this morning. Kratzer was to check it with Smyth and Lewis, and possibly Zook and Scoville, and get the word back to Andreotti.

Fritsch and I went on to the airport and caught Pan American flight No. 91 to New York (with a stop at Brussels), leaving Vienna about 11:30 a.m. and arriving in New York at 6 p.m. During the flight, I read AEC papers, which I had received from Washington.

Bob Saputo met us at Kennedy Airport and drove Fritsch to La Guardia Airport and me to the Barbizon Plaza Hotel. I checked into the hotel and then went to the

University Club where I attended dinner with the Board of Directors and key staff of National Educational Television (NET), followed by a meeting. I spent the night at the Barbizon Plaza Hotel.

Saturday, September 28, 1968 - New York - Washington

I attended the meeting of the Board of Directors of NET at NET Headquarters at 10 Columbus Circle. Present were Case (Chairman), Cousins, Cross, DuBridge, Fischer, Fleishhacker, Marland, Marshall, Minow, Mumford, Oberholtzer, Peterson, Wells, and White (President). Brewster and Reed were present at the dinner last night but DuBridge was not.

I flew to Washington on American Airlines flight No. 495, leaving about 3:30 p.m. and arriving about 4:30 p.m.

Sunday, September 29, 1968

I spent the day catching up on reading AEC papers and working on my Arches of Science Award speech, "On Public Understanding of Science: An Optimistic Opinion," (October 16, 1968), my Oak Ridge U-233 speech, "New Outlook for the Transuranium Elements," (October 8, 1968) and my Cf-252 speech, "Californium-252: Radioisotope with a Future" (October 22, 1968).

I took a hike in Rock Creek Park with Suki.

Helen did not arrive in New York from Madrid on Iberian flight No. 951, as scheduled, which worries me very much.

At 10:30 p.m. Helen called from National Airport; she arrived home about 11:15 p.m. She had caught a second section of TWA flight No. 903 and was held up due to baggage difficulties in New York.

Monday, September 30, 1968 - Germantown

I answered much of the large number of congratulatory messages I received in connection with my receipt of the Arches of Sciences Award.

At 11:30 a.m. I called Don Hornig. I said that Jerry Tape told me about their meeting on Friday. Apart from the value of the meson facility per se, I said that if we lose it, I think we would lose the 200 BeV Accelerator also. He said he agreed wholeheartedly. He also said that if I would like to sit down to talk about it sometime, he would be glad to do so. He agreed that it doesn't make sense to nibble; we either go ahead, or we don't. Hornig said that the President agreed to preside at the Fermi Award ceremony on December 2nd. Whether it can be done at 5 p.m., however, depends on the President's schedule. He will try to work it out with Jim Jones. Hornig said that Pitzer agreed to chair the special Ad Hoc Panel, to review the safety of nuclear weapons testing, and both Pitzer and Killian have agreed to a meeting on November 7th and 8th. I expressed my appreciation for his note on the Arches of Science Award.

At 12:15 p.m. I received a telephone call from Jack Horton, Southern California Edison. He asked me if I would speak on the subject of atomic energy at the EEI annual convention in Portland next June. The dates are June 9th to the 11th, but he wasn't sure on which day they wanted me to speak. He said there would be an audience of from two to three thousand. I told him I would have to check to see

whether or not I have an engagement for that time and that I would let him know. He said in the meantime he will find out from the program committee which day they have in mind.

At 1:15 p.m. I attended a luncheon at the Indian Embassy, given by Indian Ambassador Ali Jung, for Deputy Prime Minister Shri Morarji Ranchhodgi Desai. I talked to Desai about the Indian atomic energy program and my relationship with H. J. Bhabha and Vikram Sarabhai over the years. I discussed with Chief Justice Earl Warren the Abe Fortes confirmation hassle; he will apparently assume his post as Chief Justice when the Supreme Court convenes early in October and continue until a successor is found.

I discussed with Charles Zwick (Director, BOB) his threat to postpone or terminate the Los Alamos meson facility. I objected strongly to such action at this time after there has been a public ground breaking ceremony and so much money has already been spent.

I talked with Representative James Fulton and he told me about Republican plans to support vigorously basic research in the U.S. if they are elected - he would also try to orient NASA's program toward scientific objectives. I talked to Senator Walter Mondale about Vice President Humphrey's chances to win the presidential election; he is pessimistic and believes the only hope is some dramatic change in tactics. Also present at the luncheon were Representative Peter Frelinghuysen, Representative Emanuel Celler, Secretary of Agriculture Orville Freeman, Joseph Barr (Treasury), Nicholas Katzenbach (State), L. K. Jha and others.

At 4 p.m. I met with Frank Costagliola to welcome him to the Commission and to discuss his role as a Commissioner.

I called Melvin Calvin, Luis Alvarez, and Dan Arnon in Berkeley to enlist their support in nominating Al Ghiorso and Stanley Thompson for membership in the American Academy of Arts and Science.

We received today a letter dated September 28, 1968, from Walt Rostow (White House) conveying presidential approval of our request for BOWLING II, second quarter of FY 1969 underground testing program in Nevada.

I wrote to Jeanette and Ray to describe our trip to Europe and to enclose copies of pictures taken at the time of Mom's funeral.

Tuesday, October 1, 1968- D.C.

At 9:45 a.m. I attended a ceremony for the presentation of a portrait of Tennessee representative Joe L. Evins (Chairman of the House Small Business Committee) in Room 2359, Rayburn Building.

At 10 a.m. I officiated at the swearing-in ceremony for Commissioner Costagliola in the JCAE hearing room. I spoke briefly about his career, referred humorously to my advocacy of Leif Erickson's claim to the discovery of America and the Italians' counterclaim, and then administered the Oath of Office. Present were John Pastore, Clinton Anderson, Chet Holifield, Craig Hosmer, John Anderson, John Young, Adrian Fisher, Carl Walske, Commissioner Johnson, many AEC staff, and Costagliola's mother Rose, wife Agnes, and four daughters Francesca, Marisa, Antonia and Rose Ann.

At 12:30 p.m. I had lunch at the Pot O' Gold Restaurant with Arnie Fritsch, Julie Rubin, Stan Schneider, Justin Bloom and James Threlkeld. Fritsch, Threlkeld and Schneider joined me for a walk in Lafayette Park.

I wrote to Uncle Karl (my mother's younger brother) and Aunt Jenny Adolfsson in Kopparberg, Sweden, to send them copies of the pictures taken at my mother's funeral and to tell them about family activities (copy attached).

I worked on my article "Evolution of the Periodic System of the Elements from the Time of D. I. Mendeleev" for the Russian journal.

I took a hike with Steve and Suki in Rock Creek Park.

Wednesday, October 2, 1968- D.C.

Arnie Fritsch has decided to accept a job offer from General Atomic and will leave about the end of this month. I will find his departure to be a big personal loss. I asked Julie Rubin, today, to take Fritsch's place as my special assistant.

At 12:15 p.m. I called Jack Horton (Southern California Edison) and said that if they have any leeway on the program, it would be better for me to speak at the Portland meeting on June 9th. The morning of June 10th would be my second choice. However, I said I would like to keep this timing flexible up to the last moment, and asked that they call me before sending the program to press. Horton said that Portland General Electric Company will be the host company, and Frank M. Warren is planning the program. He will write Warren and will send me a copy.

At 12:30 p.m. I had lunch at the Pot O' Gold Restaurant with Arnie Fritsch and Julie Rubin, followed by a walk to the Ellipse.

At 2:45 p.m. I presided over Information Meeting 833 (notes attached). Commissioner Costagliola attended--this was his first Commission meeting.

I signed and had dispatched today a letter to Don Hornig (with enclosures) concerning major energy policy issues and major ongoing energy related policy issues (copy, without enclosures, attached).

At 5 p.m. I presided over Regulatory Information Meeting 313 (notes attached).



Official photograph of the AEC Commission

L to R: General Manager Robert E. Hollingsworth, Francesco Costagliola, Wilfred E. Johnson, Seaborg, James T. Ramey, Gerald F. Tape and Harold L. Price (Director of Regulation)



October 1, 1968

Dear Uncle Karl and Aunt Jenny:

I am enclosing copies of pictures taken at my Mother's funeral. One of them is of the six pallbearers - the four Johnson brothers, Elmer, Clark (Clarence), Sidney and Lloyd, - Ethel's husband, Clifford Clauss and their son Larry. Another is of Jeanette and myself. The large group includes Clifford and Ethel Clauss; Lloyd and Doris Johnson and their children, Debra, Lucinda and 13-year-old Stanley, and Doris' mother, Mrs. Blomquist; Ray's (Jeanette's husband) son Tom and his fiancée, Karen Anderson; and Jeanette and me. Another picture is of the Lloyd Johnson family. Another, taken in the backyard of Ethel and Clifford's house, includes Jeanette and Ray Edwards; Clifford and Ethel Clauss; Clark and Vicky Johnson and their sons, 10-year-old Glenn and 16-year-old Bradley; Elmer and Lillian Johnson; Sidney and Margie Johnson and their little son Daniel; and Tom Edwards and his fiancée, Karen Anderson. One of the pictures shows the casket, covered with flowers, before it was lowered into the grave. Another picture shows some of the flowers but not all of them because dozens of floral offerings were sent by her many friends. The single, heart-shaped floral arrangement was contributed by the Johnson families.

Helen and I returned last weekend from our trip to Europe. We visited London, England; Cologne and Hamburg, Germany; and Vienna, Austria. Helen visited Madrid, Spain on the way home while I had to return a day or so early to attend a meeting in New York. During our stay in Hamburg, we drove to Kiel where we visited the nuclear cargo ship, OTTO MAHN. We enjoyed this trip very much.

Peter has graduated from Harvard and is now out at the University of California in Berkeley to start graduate work. David is at the University of California, Davis,

beginning his second year of college. Lynne is in her last year at Radcliffe College and is living with her husband in Cambridge, Massachusetts. Stephen is a senior in high school; Eric is in his last year (that is, the ninth grade) of junior high school, and Dianne is in the fourth grade.

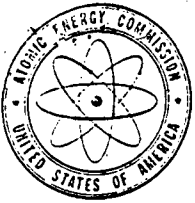
We are all feeling fine and hope you are the same.

With lots of love,

Mr. and Mrs. Karl Adolfsson  
Kyrkvagen 4A  
S-71400 Kopparberg, Sweden

Enclosures

GTS:HG  
Seaborg, Mrs. H.T.  
Seaborg Family



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

UNCL. BY DC  
NOV 86

COPY NO. 2  
October 2, 1968

INFORMATION MEETING 833

2:50 p.m., Wednesday, October 2, 1968, Chairman's Conference Room, D. C.

1. Commissioner Costagliola's First Commission Meeting

Noted by the Chairman.

2. Personnel Item

3. Luncheon, Tuesday, October 22 at the Australian Embassy

Commissioner Ramey will attend. (Rubin-Ritzmann) *On Ramey's calendar Embassy notified*

4. September 17 Memorandum to Mr. Hollingsworth from Mr. Faulkner re Proposed Letter to Secretary of Interior Udall re US Geological Surveys, Uranium Resource Investigation Program

Approved. (Rubin) *dispatched*

5. Trip Reports by Commissioners Tape and Johnson

To be rescheduled Monday, October 7. (SECY)

6. Undated Letter from Robert A. Frosch, Assistant Secretary of the Navy (R&D) re Third-Man-in-the-Sea Experiment, SEALAB III

Commissioner Costagliola is designated. (Rubin-Griffin-SECY)

*B.M. following up*

7. September 24 Letter from Charles Robbins, AIF, re Meeting to Discuss Matters in the Nuclear Field

To be scheduled for May 23, 1969. (Rubin-SECY) *Arranged with Robbins*

8. Meeting of the Special PSAC Panel

Scheduled in early November, 1968. (SECY)

9. September 24 Memorandum from Finn Larsen-re Seismicity in Nevada Following Large Underground Nuclear Tests and Mr. Bloch's September 27 Memorandum re University of Nevada Seismic Study

Staff analysis of statistical data is requested. Commissioner Tape will discuss with Mr. Finn J. Larsen, DOD, upon his return. (AGMMA-Rosen)

10. September 23 Letter from David Perlman, San Francisco Chronicle, re Plowshare Press Coverage

A response is requested. (PI-PNE)

11. September 25 Letter from Charles C. Bunker, Mayor, Town of Woodside, re Undergrounding of Town Distribution Lines

Noted. (AGMO)

12. AEC 1290 - Proposal for Atomic Energy Cooperation with Libya

Approved with an addition. (AGMIA)

13. AEC 1083/126 - Reception for Foreign Representatives at the ANS/AIF International Conference

Approved. (AGMIA)

14. AEC 89/113 - Proposed Employment of Czech National

Additional information and rescheduling is requested. (AGMIA-SECY)

15. AEC 152/238 - Proposed Letter to Dr. Hornig on Energy Policy Matters

Approved. (Rubin) *dispatched*

16. AEC 25/398 - Proposed Letter to Assistant Secretary of Defense  
Concerning Pershing Weapon System Safety Rules

To be discussed with Commissioner Ramey and rescheduled.  
(AGMMA-Ritzmann-SECY)

17. AEC 141/104 - Safety of Test Operations

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

18. AEC 1282/9 - Execution Data for a Portion of the Bowline II Events

Approved. (AGMMA)

19. AEC 544/87 - Uranium Mines: Pending FRC Activities on Radon  
Standards (See also October 1 Report from Federal Radiation Council)

To be rescheduled after staff discussions with the Departments of  
HEW, Labor, and Interior. (AGMO-SECY)

20. AEC 268/33 - Proposed Letter Agreements Providing for Additional  
Power Deliveries by TVA in 1973 and 1974

Staff may proceed. (AGMP&P)

21. AEC 696/158 - N Reactor Licensability (See also AEC 696/159 -  
Supplement to AEC 696/158)

Staff is to proceed in accordance with the discussion, and the  
Commissioners are to be kept informed. (AGMP&P)

22. AEC 811/205 - Public Release of Gasbuggy Data

Noted. (PNE)

23. AEC 1114/3 - Princeton University Stellerator Contract

Noted with Commissioner Johnson's dissent and Commissioner  
Costagliola's abstention. (DC)

24. Professor Boettcher, Julich Research Center, Briefing on Fast  
Breeder Reactors

Noted. (SECY)

25. Organizational Item

To be scheduled the week of October 7. (GM-SECY)

26. In-House Cost Benefits Study on Fast Breeder Reactors

27. General Manager's Report on September 27 Meeting with Director, BoB, re the Meson Facility

28. NTS Events (See General Giller's September 26 Memorandum)

Noted. (AGMMA)

29. General Manager's September 23 Memorandum re Field Office Managers' Meeting, October 10-11, 1968, Las Vegas, Nevada

Commissioner Ramey will attend. (SECY)

30. September 18 Letter from Carl Walske re Visit to Sandia, LASL, and LRL, October 16-18, 1968

Commissioner Costagliola will accompany the MLC. (AGMMA-SECY)

31. Official Commission Photograph

To be scheduled. (SECY)

32. Enrico Fermi Award Ceremony, December 2, 1968 (See Secretary's September 30 Memorandum) (See also September 27 Memorandum from Mr. Tomei re Forthcoming Visit of GAC Weapons Subcommittee)

Noted. We will request a jetstar. (Rubin-SECY)

33. Commissioners' Meeting with the ACRS, October 3, 1968 (See September 16 Agenda)

Noted. (SECY)

W. B. McCool  
Secretary

5:05 p. m.

PRESENT:

COMMISSIONERS:

Chairman Seaborg  
Commissioner Ramey  
Commissioner Johnson  
Commissioner Costagliola

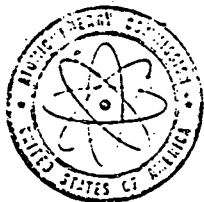
STAFF:

Mr. Hollingsworth  
Mr. Bloch  
Mr. Hennessey  
Mr. Rubin  
Mr. Rosen  
Mr. Kull  
Mr. McCool  
Gen. Giller\*  
Mr. Winter\*  
Mr. Harris\*  
Dr. Friedman\*  
Mr. Erlewine\*  
Dr. Biles\*  
Mr. Quinn\*  
Mr. Faulkner\*  
Mr. Wells\*

DISTRIBUTION:

Commissioners  
General Manager  
General Counsel  
Secretary

\*Attendance by Topic (s)



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

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NOV 86

OCT 2 1968

Dr. Donald F. Hornig, Director  
Executive Office of the President  
Office of Science and Technology

Dear Dr. Hornig:

This is in reply to your memorandum of August 12, 1968 requesting a report on energy policy matters.

In considering your request, we have taken into account the 1966 Findings and Conclusions of the Interdepartmental Energy Study as well as the associated "Cambel" report entitled "Energy R&D and National Progress." As you recall, the Findings and Conclusions specified the circumstances under which Government initiative might be desirable in undertaking research and development (R&D) work and also laid out what were considered then to be the principal Government R&D energy issues and recommendations. In the nuclear energy field, specific recommendations were made to support additional Government R&D on advanced reactors, particularly the breeders; on exploiting our thorium resources as well as our uranium resources; and on investigating controlled nuclear fusion in view of its enormous potential for the future. We have been conducting our R&D programs in line with these general recommendations.

Those matters related to civilian nuclear power were also described and analyzed in our 1967 Supplement to the 1962 Report to the President on Civilian Nuclear Power. In addition, a number of special analytical studies have been conducted at the request of the BOB. Thus, a wealth of information has been prepared regarding these subjects.

In Enclosure 1, we have listed what we presently believe are the major energy policy issues, pending or on the horizon, facing the AEC. In each case, a brief description has been provided to clarify and further identify the issue. In view of the complexity of the issues, the accompanying descriptions tend toward oversimplification. In many cases there is considerable interrelationship between issues.

You will note that the first two issues are concerned with light water reactors and plutonium recycle. As was discussed in the Findings and Conclusions of the Energy Study, as well as in the 1967 Supplement on Civilian Nuclear Power, it has been generally thought that, except for reactor safety work, there was limited need for further Government



support of light water reactors, and that private industry would be supporting any additional R&D. It was recognized that there necessarily would be a transition period, and that the Government withdrawal would be accomplished in a reasonable manner. As discussed in Enclosure 1, however, there is increasing evidence that industry sponsored programs on the light water reactors may not be sufficient or timely enough to assure that the work necessary for achieving their success is accomplished. In view of the country's critical dependence upon nuclear power for meeting its future electrical demands in an economic and timely manner, the Government may have to review its position with regard to the need for further efforts relative to light water reactors.

In view of the rapid growth in civilian nuclear power, uranium enrichment is expected to constitute an enterprise of large economic significance over the next decades. As you are aware, uranium enriching is now the only step in the fuel cycle of nuclear power reactors which is not performed by private industry. The issue in Enclosure 1 as to whether the gaseous diffusion plants should remain under Government ownership or be transferred in some manner to industry is of considerable importance. There are many complicating factors which must be considered in determining the feasibility and desirability of any change in ownership, including national security, proliferation of nuclear weapon capabilities, the well-being of the entire nuclear industry, and foreign relations and agreements. A report on this subject has been prepared and submitted to the Commission by an AIF study group, and the AEC is now conducting an internal study of this matter.

Enclosure 2 lists the major ongoing energy studies being pursued by the AEC, including a brief description of the study, the estimated completion date, and the responsible AEC person directing the study. We are also participating in the following energy related interagency activities: Generating Station Site Criteria Study, Small Utility Participation Study, Updating of the FPC National Power Survey, and the Working Committee on Utilities environmental study.

In addition to the issues identified in Enclosure 1, there are, of course, a number of other overall energy questions which, although not directly facing the Commission, will undoubtedly have a considerable impact on the AEC and nuclear industry. Included in this category are matters such as:

Dr. Donald R. Hornig

- 3 -

- (a) Government policy and regulations on fossil fuels:
- abatement of air pollution
  - import of oil
  - depletion allowances
- (b) Fossil fuel resources; future prices
- (c) Population growth; demands for energy, particularly electricity
- (d) Government policies and regulations with regard to aesthetics and conservation:

- utility corridors for H<sub>2</sub>O, electricity, etc.
- transmission lines
- recreational, wildlife

We hope that this letter provides the type of information desired by Mr. Freeman and the Energy Policy Staff. Please let us know if we can be of further assistance.

Sincerely,

(Signature)

Chairman

Enclosures:

1. Major Energy Policy Issues
2. Major Ongoing Energy Related Studies

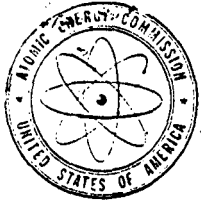
cc: Director, Bureau of the Budget w/enclosures

bcc w/encs:

Dir, IP  
Dir, OA  
Dir, PNE  
Dir, P  
Dir, RM

Dir, RDT  
Dir, DRS  
Dir, R  
AGER  
GM. (2)  
AD/PA, RDT

Chairman (2)  
Cmr. Ramey  
Cmr. Tape  
Cmr. Johnson  
Cmr. Costagliola  
SECY (2)



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WASHINGTON, D.C. 20545

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REGULATORY INFORMATION MEETING 313

5:05 p.m., Wednesday, October 2, 1968, Chairman's Conference Room, D. C.

1. Mr. Price's October 1 Memorandum re Request for Hearing by Long Island Nuclear Service Corporation

Approved. (ADRA)

2. Mr. Price's September 26 Memorandum re Proposed Amendments to New Jersey Radiation Protection Code

Approved. The Director of Regulation will sign the letter. (ADRA)

3. Mr. Price's October 1 Memorandum re Initial Decision in the Matter of Public Service Electric and Gas Company, Salem Nuclear Generating Station Units 1 and 2, New Jersey Radiation Laws

Mr. Wells will inform Board members. (ADRA-Chm. AS&LBP)

4. AEC-R 167/5 - Staff's Comments on OPPD's Provisional Construction Permit for Fort Calhoun Station No. 1

To be rescheduled. (SECY)

5. AEC-R 8/31 - Renewal Licenses Authorizing Commercial Sea Disposal of Radioactive Waste

Alternative action is approved. (ADRA)

W. B. McCool  
Secretary

5:30 p.m.

PRESENT:

COMMISSIONERS:

Chairman Seaborg  
Commissioner Ramey  
Commissioner Johnson  
Commissioner Costagliola

STAFF:

Mr. Price  
Mr. Henderson  
Mr. Hennessey  
Mr. Rubin  
Mr. Rosen  
Mr. Wells  
Mr. McCool

DISTRIBUTION:

Commissioners  
Dir/Regulation  
General Manager  
General Counsel  
Secretary

Thursday, October 3, 1968- D.C.

Justin Bloom accepted my invitation to serve as my assistant, filling the vacancy created by Julie Rubin replacing Arnie Fritsch.

I had lunch at 12:30 p.m. with Fred Albaugh at the Pot O' Gold Restaurant, followed by a walk in Lafayette Park. We discussed his plans to expand the program at Pacific Northwest Laboratories (PNL) to include work for other government agencies, such as DOD. He also told me about his and Sherwood Fawcett's recent talk with Bob Hollingsworth and George Kavanagh which ameliorated the trouble PNL is having with Milt Shaw.

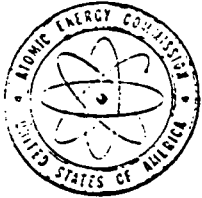
At 2 p.m. Commissioners Ramey, Johnson and Costagliola, staff, and I met with the Advisory Committee on Reactor Safeguards (ACRS) (action summary attached). We discussed their schedule of subcommittee hearings for the last 18 months, their plans for reviewing safety of fast reactors, and impending legislation which affects ACRS matters. I emphasized the need of relating their safety criteria for present day power reactors with those for reactors of the future so that they don't set impossible standards for the future. I presented a Certificate of Appreciation to Frank Gifford, who is retiring after ten years as a member of the ACRS.

At 3:30 p.m. I met with Commissioner Johnson, Bob Hollingsworth and Julius Rubin to discuss reorganization of the Division of Reactor Development and Technology. The General Manager reported on some preliminary discussions with Commissioner Johnson about organization of RDT. In discussions between the General Manager and Milt Shaw, with George Kavanagh present, the General Manager had reviewed the problem of Shaw's attitude and responsiveness to Commission direction. This problem of relations between Shaw and the Commissioners, as reported by the General Manager, was recognized by Shaw and he has an earnest interest in its solution. The General Manager reported his recommendation to Shaw was that he obtain a deputy but admitted that up to this time it is something that Shaw has not wanted to do. Based on the discussions Shaw is now in the proper frame of mind to accept a deputy and is proceeding along that line. The General Manager and Shaw are anxious to obtain someone with the necessary technical qualifications to help on the program as well as improve the relations of RDT with the Commissioners.

Commissioner Johnson noted this may not solve the problem, as Shaw is very strongly project-oriented, and a possible alternate approach would be to have him concentrate on the LMFBR program and the deputy manage the remainder of the RDT effort.

I also indicated there is a serious need to improve relations with the national laboratories. I agreed with the General Manager's comments that Shaw lacks a good understanding of our laboratory operations and their general thinking. With regard to a possible split organization or direction, the General Manager expressed the view that it would only work if there is a clear understanding that Shaw is in charge of the overall program. He further added that with Shaw's present state of mind and selection of the right deputy the program direction and relationship problem could both be improved without any attempt to split the organization.

Both Johnson and I accepted this objective with the understanding that if it doesn't work, we may still need to think about a possible split organization as a fallback.



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NOV 86

October 14, 1968

Approved \_\_\_\_\_

HLP/REH

Date \_\_\_\_\_

H. L. Price, Director of Regulation  
R. E. Hollingsworth, General Manager

ACTION SUMMARY OF COMMISSIONERS' MEETING WITH THE ADVISORY COMMITTEE ON REACTOR SAFEGUARDS, THURSDAY, OCTOBER 3, 1968, 2:10 P.M., RCOM 1030, D. C. OFFICE

SECY:WLW

1. Chairman Seaborg's Presentation of Certificate of Appreciation to Franklin A. Gifford

2. ACRS Activities Related to Topical Matters

Dr. Zabel reported on the recent activities of the ACRS, including the establishment of a new subcommittee to review new reactor concepts, in particular the LMFBR and the HTGR. He also circulated a list of meetings on criteria and general topical matters related to reactor safety which were attended by ACRS members during the period from January 1, 1967 to October 3, 1968.

3. Advanced ACRS Review of the Safety of Fast Reactors

Dr. Okrent reported the ACRS is taking steps to assure its members obtain available information on new reactor concepts. He noted some members of the committee would attend a meeting in November at Argonne National Laboratory to discuss the safety problems related to the LMFBR; before the end of 1968 the ACRS would also hope to meet with potential vendors individually to discuss their approach to new safety problems related to the LMFBR.

The Chairman suggested that the ACRS review of new concepts could provide an input into the development of criteria for water reactors that might preclude the establishment of a criteria that could not be met by new reactor types.

ACRS members noted that judgment will have to be applied to the development of criteria for new reactor types just as judgment has been applied in connection with water reactors. Dr. Zabel noted that the ACRS is in a favorable position to give attention to the Chairman's suggestion.

4. Status of Pending Legislation Which May Affect ACRS Activities

Mr. Hennessey reported on the status of pending legislation of interest to the ACRS.

Original signed

W. B. McCool

W. B. McCool

Secretary

cc:  
Commissioners  
Chairman, ACRS

Also, I indicated that I have observed a noticeable improvement in the relationship between RDT and Battelle since Bob Hollingsworth personally reviewed the situation with Fred Albaugh and Sherwood Fawcett. I suggested similar discussions with other laboratory directors, such as Weinberg and Duffield, would also be desirable. In regard to the relationship problem, I also expressed some disappointment in George Kavanagh's performance as Assistant General Manager for Reactors. I hesitated to suggest any drastic action such as a move and recognized that Kavanagh's health may be limiting his activity. There was also recognition by the General Manager and me that anyone in that job would have little if any responsibility for direction for the naval reactor program. This matter was left as something for continued observation and possible further consideration.

The General Manager asked me how well I know Floyd Culler and indicated he might want to ask me to call Floyd to encourage his accepting the deputy RDT job. Bob plans to talk to Floyd again in a few days and I agreed to call Floyd if it would help. I asked that arrangements be made for an executive session for the Commissioners and the General Manager on Monday, October 7th, in order that the general subject of RDT organization could be reviewed with the entire Commission.

At 5:30 p.m. I presided over a Commissioners Meeting with the Chairman of the Atomic Safety and Licensing Board Panel (AS&LBP) (notes attached).

#### Friday, October 4, 1968- Germantown

At 10 a.m. I presided over Regulatory Information Meeting 314, at which the Commissioners considered AEC-R 69/16--Pressure Vessels Manufactured by Foreign Countries--and requested appropriate staff action.

At 10:15 a.m. I presided over Information Meeting 834 (notes attached).

At 11:15 a.m. I presided over Commission Meeting 2348 (action summary attached).

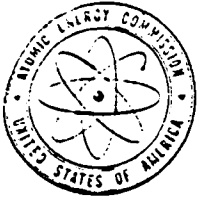
At 1 p.m. I had lunch in my office with Ernie Tremmel, Jim Hill, Arnie Fritsch, and Julie Rubin to discuss the question of transfer of our gaseous diffusion plants to private ownership. The Commissioners and staff are leaning toward a government corporation, but I have doubts as to this approach and want to consider further the possibility of private ownership.

I had a talk with Commissioner Johnson, suggesting we postpone a decision of the future of the gaseous diffusion plants, i.e., that we not decide at this time to ask for legislation to create a government corporation but consider further the possibility of private ownership of at least some of the three plants.

At 2:30 p.m. I met with William Riley (Director, Division of Security) to be briefed on the progress of an AEC man in his contacts with a Romanian (from the Romanian Embassy) who is trying to buy secret information; the AEC man is operating with the knowledge of the FBI and is cooperating with them.

I sent a letter report to President Johnson on my recent trip to Vienna to attend the IAEA conference (copy attached).

Dave called from Davis; he has rented an apartment and is sharing it with his former roommate, Dan Sheldon.



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October 3, 1968

COMMISSIONERS' MEETING WITH THE CHAIRMAN, AS&LBP

5:30 p.m., Tuesday, October 3, 1968, Chairman's Conference Room  
D. C. Office

1. Mr. Wells' September 26 Memorandum on the Resignation of Mr. Warren E. Nyer from the AS&LBP

Noted.

The Commission approved the proposed letter to Mr. Nyer. (Chr., AS&LBP)

2. Mr. Wells' September 30 Memorandum on Board Members for Future Hearings (Indiana and Michigan Electric Company, Docket Nos. 50-315 and 50-316)

Approved. (Chr., AS&LBP)

W. B. McCool  
Secretary

PRESENT

COMMISSIONERS

Chairman Seaborg  
Commissioner Ramey  
Commissioner Johnson  
Commissioner Costagliola

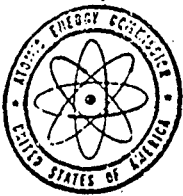
STAFF

Mr. Wells  
Mr. Hennessey  
Mr. Rubin  
Mr. Rosen  
Mr. McCool

DISTRIBUTION

Commissioners  
Chairman, AS&LBP  
General Counsel  
Secretary





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COPY NO. 2  
October 4, 1968

INFORMATION MEETING 834

10:15 a. m. , Friday, October 4, 1968, Room A-458, Germantown Headquarters

1. NTS Events (See General Giller's October 3 Memorandum)

Noted. (AGMMA)

2. Agenda for the Week of October 7, 1968

Approved. (SECY)

3. Commissioners' Meeting with Admiral Rickover, 11:30 a. m. , Monday, October 7, 1968

Noted. (SECY)

4. AEC-DOD Luncheon, 12:45 p. m. , Monday, October 7, 1968, Blue Room, OSD Mess, The Pentagon

Noted. (SECY)

5. Commissioners' Official Photograph, 9:45 a. m. , Monday, October 7, 1968, Room 1115, D. C. Office

Scheduled. (PI-SECY)

6. Commissioners' Meeting with North American Rockwell and General Public Utilities Corporation, 2:30 p. m. , October 31, 1968

An alternate date will be checked. (SECY)

7. AEC 901/385 - Proposed Czech National Visits to Hanford and ANL

Approved. (AGMIA)

8. Dr. Friedman's October 3 Memorandum re Proposed Travel to USSR of Lawrence Radiation Laboratory - Berkeley Employee

The Commissioners agreed the visit may be approved if Dr. Sessler pays the bill. (AGMIA)

9. AEC 568/109 - Article by LRL Employee: "Radiative Flux Through an Empty Cylinder"

The Commission is to be informed if there are problems. (AGMA)

10. AEC 972/17 - Publication of Volume II of the AEC History

Noted. (DC)

11. Pending Contractual Matters Report No. 277

Noted. (PAR)

W. B. McCool  
Secretary

11:00 a. m.

PRESENT:

COMMISSIONERS:

Chairman Seaborg  
Commissioner Ramey  
Commissioner Johnson  
Commissioner Costagliola

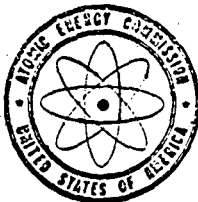
STAFF:

Mr. Hollingsworth  
Mr. Bloch  
Mr. Rubin  
Mr. Rosen  
Mr. Kull  
Mr. McCool  
Dr. Friedman\*  
Mr. Gaughran\*  
Mr. Marshall\*  
Mr. Riley\*

DISTRIBUTION:

Commissioners  
General Manager  
General Counsel  
Secretary

\*Attendance by Topic (s)



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

October 4, 1968

Approved \_\_\_\_\_

R.E.H.

Date \_\_\_\_\_

R. E. Hollingsworth, General Manager

ACTION SUMMARY OF MEETING 2348, FRIDAY, OCTOBER 4, 1968, 11:15 A.M.,  
ROOM A-410, GERMANTOWN, MARYLAND

SECY:SBR

Commission Business

1. Commissioner Costagliola's First Commission Meeting

Noted.

2. Minutes of Meetings 2324, 2328, 2329, and 2330

Approved as revised, subject to Commissioner Ramey's comments. (SECY)

3. Near East Energy Center Study

Commissioner Ramey reported on the status of discussions.

4. AEC 1134/1 - Contract with the University of Tennessee

Approved. (DC)

5. AEC 553/36 - Operating Contractor for Nevada Centralized Computer Facility

Approved. (DC)

6. AEC 1143/75 - Redox Facility at Richland

Approved. (DC)

7. Briefing on Prisoner Exposure to Radiation (See AEC 1192/63 - Pending Contractual Matters Report No. 271)

The Commission is to be informed if the contract is to be renewed.  
(B&M-DC)

Original signed  
W. B. McCool

W. B. McCool  
Secretary

cc:  
Commissioners

October 4, 1968

The President  
The White House

Dear Mr. President:

I would like to report briefly to you on my participation as the U.S. Delegate to the Twelfth General Conference of the International Atomic Energy Agency in Vienna last week and my visits to nuclear energy installations in Europe.

Prior to the start of the IAEA General Conference on September 24, I visited Brussels on September 19 to meet with Fritz Nollwy, Vice President of the Commission of European Communities and Commissioniers Emmanuel Sesson and Wilhelm Kaeferkamp, and other officials of the Euratom organization. The primary purpose of our discussions was to further strengthen the ties of cooperation between the Euratom organization and the AEC. We had frank discussions concerning some of the specific problems that have arisen in our cooperative program during the past year, including such areas as uranium and plutonium fuel supply and safeguards, and I believe we benefited from the improved understanding of each other's point of view.

The following two days, September 20 and 21, I visited the Jilich Research Center, the Deutsches Elektron Synchrotron (DESY), and the Nuclear Ship OTTO HAHN, all in West Germany. During my visit to Jilich, near Cologne, I was particularly impressed by their strong interest and program in high temperature gas-cooled reactors, paralleling efforts in our country. Their assessment of the future trends of reactor development was most enlightening and provided additional corroboration to the position which the AEC is slowly evolving of supporting active programs in the high temperature gas-cooled reactor field and the molten salt reactor field while continuing with the development of a main-line effort on liquid metal cooled fast breeder reactors.

My visit to the DESY in Hamburg, a large 7 BEV electron accelerator, clearly showed that Germany is prepared to support high energy physics in this area in the same proportion as we are supporting it with our Stanford linear accelerator and the Cambridge Electron Accelerator complexes in the United States. My final visit to the Nuclear Ship OTTO HAHN at Kiel was most useful. This developmental ship is an ore carrier with an improved propulsion plant about half the size of our W. S. SAVANNAH. The German view regarding nuclear maritime propulsion is not dissimilar from ours. They feel if it is to be economic, a commitment must be undertaken to construct at least four ships, each powered by a reasonably large (about 50,000 shaft horsepower) nuclear power plant in order to maximize the advantage of the nuclear power source.

Then, for the eighth time, I had the honor and pleasure to represent the United States during the week of September 23 in the activities of the Twelfth General Conference of the International Atomic Energy Agency in Vienna, Austria. I delivered your message to the General Conference on September 25 in which you reaffirmed our Nation's strong support for the NPT. Later that day, the Soviet delegate, Morozhnev, delivered a similar message from Premier Kozysin. The conference developed no new viewpoints regarding the NPT, with support for the Treaty coming from those countries one would expect. Many countries expressed a desire for detailed review and improvement of the Agency's safeguards system, and the related matter of an increase in the size of the Agency's Board of Governors.

The Czechoslovakian situation had little impact upon the Conference itself since the IAEA has now been accepted by most members as a technical organization and not a political one. It has generally been possible to avoid the rancor of political debate at these conferences. Nonetheless, it was interesting to note that the Yugoslavian Delegate delivered his statement to the plenary session in English together with some restrained criticism of the USSR. The activities of the Conference of Non-Nuclear Reapon States (NRC), which ended in Geneva during this same week, were reflected in Vienna although in somewhat muted tones. The U.S. sponsored a resolution asking the IAEA to study its role in peaceful nuclear explosives in an effort to blunt some of the strident actions proposed in the NRC. IAEA Director General Eklund also made a strong point of the need

for increased financial support on the part of the Member States, for as he pointed out, the IAEA has the capability and intent to do most of the activities espoused in the NPT in Geneva, but it has always been limited by the lack of sufficient funds. I believe this is a most important point -- and that the United States must be careful at this time, when the NPT hangs in the balance, not to give the impression of reducing its continued financial support to the IAEA.

One topic which pervaded my discussions both in Vienna and earlier in Brussels and in Germany was the matter of a European uranium enrichment facility. It seems clear that the consideration of such a facility, which is now in the final stages, will produce an affirmative decision to proceed with construction in the next few years. The question of who participates in the construction of such an enrichment facility and when, where, and how it is built will, of course, be in part dependent on the U.S. attitude toward it.

I shall, of course, be available in case there are any specific areas upon which I have touched that you would like further detailed information.

Respectfully,

(Signed) Glenn T. Seaborg

Glenn T. Seaborg

cc: Secretary Rusk

ARF/smk

Saturday, October 5, 1968- D.C.

I went to Stein's (the tailor) with Helen to order four suits.

I spent the morning at the D.C. office and had lunch at the Pot O' Gold Restaurant with Julie Rubin.

In the afternoon I went to Myer-Emco, Inc. (1212 18th Street, N.W.) with Steve and Dianne and bought Steve a KLH 11W stereo (mostly with his money) and a Sony TC-8 (records and plays 8-track tape cartridges).

Steve, Suki and I took a hike in Rock Creek Park.

Sunday, October 6, 1968- D.C.

Helen, Steve, Eric and I went to the D.C. Stadium to see the Washington Redskins play the Philadelphia Eagles. The Redskins won, 17-14.

I read AEC papers.

Monday, October 7, 1968- D.C.- Knoxville- Gatlinburg

At 10 a.m. I presided over Information Meeting 835 (notes attached). We discussed my proposal that we delay adopting the concept of a government corporation to operate our gaseous diffusion plants and I succeeded in getting agreement to postpone this decision. I am not satisfied that this is the correct move and feel sale to private enterprise deserves more consideration. We also discussed the Milt Shaw problem and decided to offer Floyd Culler a position as Shaw's deputy in an attempt to rectify the situation.

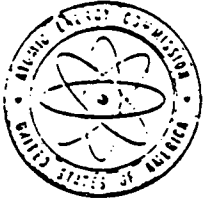
The Commissioners and General Manager met with Admiral Rickover, David Leighton, and W. Wegner to hear their complaints about the Office of the Secretary of Defense dragging their heels on approval for nuclear ships.

At 12:30 p.m. the Commissioners, General Manager, General Giller and I had lunch in the DOD Blue Room, Pentagon, with Carl Walske, John Foster, and William Carter (Walske's assistant) to discuss 1) warhead cost estimates, 2) tactical nuclear weapons, 3) high yield testing problems, 4) funding for the testing readiness program, 5) the possibility of another cycle in the arms race, 6) command and control problems, 7) the GAO study of the SENTINEL program, and 8) DOD disagreement with Rickover over the naval reactor program.

At 2:35 p.m. we had a meeting in the D.C. office conference room with Carl Walske (DOD), W. Jack Howard (Vice President of Sandia Corporation), Leon D. Smith (Sandia Corporation), Marvin Gustavson (LRL-Livermore), and Frank D. McMullen (Walske's assistant) in which the Commissioners and staff were brought up to date on the PAL/PAPS program.

At 4:30 p.m. I presided over Commission Meeting 2349 (action summary attached). We decided to proceed with the market development phase of the californium-252 development program.

Arnie Fritsch and I flew to Knoxville on United Airlines Flight No. 593, leaving an hour late, at 9 p.m., due to brake relining trouble, and arriving at 10:20 p.m. We were met by Larry Corbin (ORNL) and George Boyd (ORNL) who drove us to Gatlinburg where we checked into the Mountain View Motor Lodge (connected with



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

OFFICE DIARY  
GLENN T. SEABORG  
Chr USAEC, 1961-72  
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COPY NO. 2  
October 7, 1968

INFORMATION MEETING 835

ENCL. BY DOE  
NOV 86

10:00 a.m., Monday, October 7, 1968, Chairman's Conference Room, D. C.

1. Commissioner Ramey's Oral Report on the Bolsa Island Project
2. Commissioner Tape's Report of Trip to Soviet Union, July 28-August 30, 1968 (See October 1 Memorandum)

Commissioner Tape elaborated briefly on the report of his trip to the USSR.

2. Commissioner Johnson's Report on Trip to Vienna and Rome, September 18-27, 1968 (See October 1 Memoranda)

Appropriate staff action is requested. (AGMLA)

4. AEC 1282/10 - Execution Data for [REDACTED] Event

**DECLASSIFIED**

Approved. (AGMMA)

5. General Giller's October 7 memorandum re Seismic Events Following Underground Tests

Approved. (AGMMA)

6. Commissioners' Luncheon with Department of Defense Officials Today

7. AEC 773/24 - Removal of Building Structures at Hallam

Approved. (RDT)

CLASSIFICATION CANCELLED  
WITH DELETIONS  
BY AUTHORITY OF DOE/OC

*[Signature]* 7/10/86  
REVIEWED BY DATE

*[Signature]* 7/10/86



8. AEC 1096/93 - URA Request for Reimbursement for Capital Outlays at Weston

The General Manager's proposed response to URA is approved. (AGMO)

9. AEC 1197/1 - Citizens' Advisory Committee Report on Recreation and Natural Beauty

Approved with changes. The Chairman requested a relook at the AEC statements re growth in nuclear power plant capacity. (AGMO)

10. AEC 852/257 - 4th Annual Meeting of USAEC/AECL

Approved. The Chairman noted the statement in AEC 805/20 re possible Canadian support of the Meson Facility. (AGMIA)

11. AEC 89/113 - Proposed Employment of Czech National

Approved with Commissioner Ramey dissenting and Commissioner Costagliola abstaining. The Commissioners are to be kept informed. (AGMIA)

12. AEC 226/424 - Proposed Reply to William C. Foster, ACDA, re Cutoff

Approved with revisions and subject to a check of ENDC/134 prior to transmittal. (SAD)

13. Briefing by IBM on Computer Educational Program, November 26, 1963

An alternate date is requested. (SECY)

14. Controller's Briefing on the AEC Computer System

\*\*\*\*\*

15. Executive Session Items

a. Fermi Award

Alternative language is requested. (SECY)

b. Organization and Personnel Item

The General Manager may proceed. (GM)

✓ c. Award Nominees

To be rescheduled. (SECY)

W. B. McCool  
 Secretary

12:00 N

PRESENT:

COMMISSIONERS:

Chairman Seaborg  
 Commissioner Ramey  
 Commissioner Tape  
 Commissioner Johnson  
 Commissioner Costagliola

STAFF:

Mr. Hollingsworth  
 Mr. Bloch  
 Mr. Hennessey  
 Mr. Schoenhaut  
 Mr. Kull  
 Mr. Rubin  
 Mr. McCool  
 Gen. Giller\*  
 Mr. Winter\*  
 Mr. Erlewine\*  
 Mr. Wells\*  
 Mr. Kratzer\*

DISTRIBUTION:

Commissioners  
 General Manager  
 General Counsel  
 Secretary

\*Attendance by Topic (s)

ACTION MEMOS - INFORMATION MEETING 835, October 7, 1968-1

AEC 1282/10 - Execution Data for [REDACTED] Event

ENCL. BY DOE  
 NOV 86

At Information Meeting the Commission approved the execution data for the [REDACTED] Event.

AEC 773/24 - Removal of Building Structures at Hallam

At Information Meeting the Commission approved the removal of the reactor and other buildings at the Hallam Nuclear Power Facility by acceptance of the low bid now in hand by the Chicago Operations Office.

AEC 1096/93 - URA Request for Reimbursement for Capital Outlays at Weston

At Information Meeting the Commission: (a) Agreed the AEC should advise URA informally that upon full authorization and site acquisition the AEC will explore definitively with URA, in good faith, mutually acceptable bases for reimbursement of the expenses voluntarily incurred by URA in building certain temporary structures at the Weston site; (b) Agreed URA should be told informally that it is the Commission's desire to attempt resolution of this matter.

AEC 1197/1 - Citizens' Advisory Committee Report on Recreation and Natural Beauty

At Information Meeting the Commission approved with changes the draft chapter of the Report of the Citizens' Advisory Committee on Recreation and Natural Beauty commenting on the Advisory Committee's recommendations specifically dealing with nuclear power. The Commission suggested modification of the language used in the report of Advisory Committee's Electric Utility Industry Task Force to the effect that by the year 2000, "the AEC believes essentially that all new, large plants will be nuclear." The Commission further suggested the accuracy of this statement be reanalyzed.

AEC 852/257 - 4th Annual Meeting of USAEC/AECL

At Information Meeting the Commission approved the proposed agenda for the Fourth Annual Business Meeting between the AEC and AECL, to be held on the morning of Thursday, November 14, 1968, followed by a Commission luncheon. The Chairman noted the statement in AEC 805/20 concerning possible Canadian support of the Meson Facility.

CLASSIFICATION CANCELLED  
 WITH DELETIONS  
 BY AUTHORITY OF DOE/OC  
 REVIEWED BY [Signature]  
 DATE 7/10/86  
 [Signature] 7/10/86

OFFICE DIARY

GLENN T. SEABORG

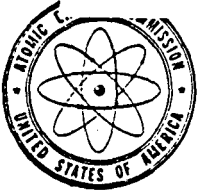
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ACTION MEMOS - INFORMATION MEETING 835, October 7, 1968-2

AEC 89/113 - Proposed Employment of Czech National

At Information Meeting the Commission approved, with Commissioner Ramey dissenting and Commissioner Costagliola abstaining, the employment on an unclassified AEC research contract of Dr. Milos Seidl, Czechoslovakian national, at Stanford University. The Commissioners are to be kept informed.



UNITED STATES  
ATOMIC ENERGY COMMISSION

WASHINGTON, D.C. 20545

October 9, 1968

Approved \_\_\_\_\_

R.E.H.

Date \_\_\_\_\_

R. E. Hollingsworth, General Manager

ACTION SUMMARY OF MEETING 2349, MONDAY, OCTOBER 7, 1968, 4:30 P.M.,  
ROOM 1115, D. C. OFFICE

SECY:EGE

Executive Session

1. AEC 610/128 - U.S. Policy Concerning Cooperation with Foreign Isotope Enrichment Activities

Discussed.

The Commission requested staff analysis of possible U.S. cooperation with foreign nations in the isotope separation field. The Commission also requested a report on the recent discussions in Italy and France and on the status of the proposed revisions to 10 CFR Parts 25, 26, and 95. (AGM/AGMIA/AGMP&P/GC)

2. AEC 809/126 - 10 CFR Part 110 - Unclassified Activities in Foreign Atomic Energy Programs

Discussed.

The Commission determined no amendments were necessary at this time, but that staff should continue to follow developments in this matter. (AGMIA)

Commission Business

1. AEC 1284/1 - Request for Authorization to Proceed with Market Development Phase of the Californium-252 Program

Discussed.

The Commission agreed to proceeding with the market development phase of the Cf-252 program as proposed in AEC 1284/1, stressing the desirability of administrative flexibility. The Commission also requested a minor revision in the draft letter to the hospitals. (P)

R. E. Hollingsworth  
Action Summary 2349

-2-

October 8, 1968

2. AEC 459/47 - Alternatives for Government Enrichment Activities -- Uranium Enrichment Corporation

Discussed.

The Commission noted the General Manager would be distributing additional material on this matter for Commission consideration. (AGMP&P)

Original signed  
W. B. McCool

W. B. McCool  
Secretary

cc:

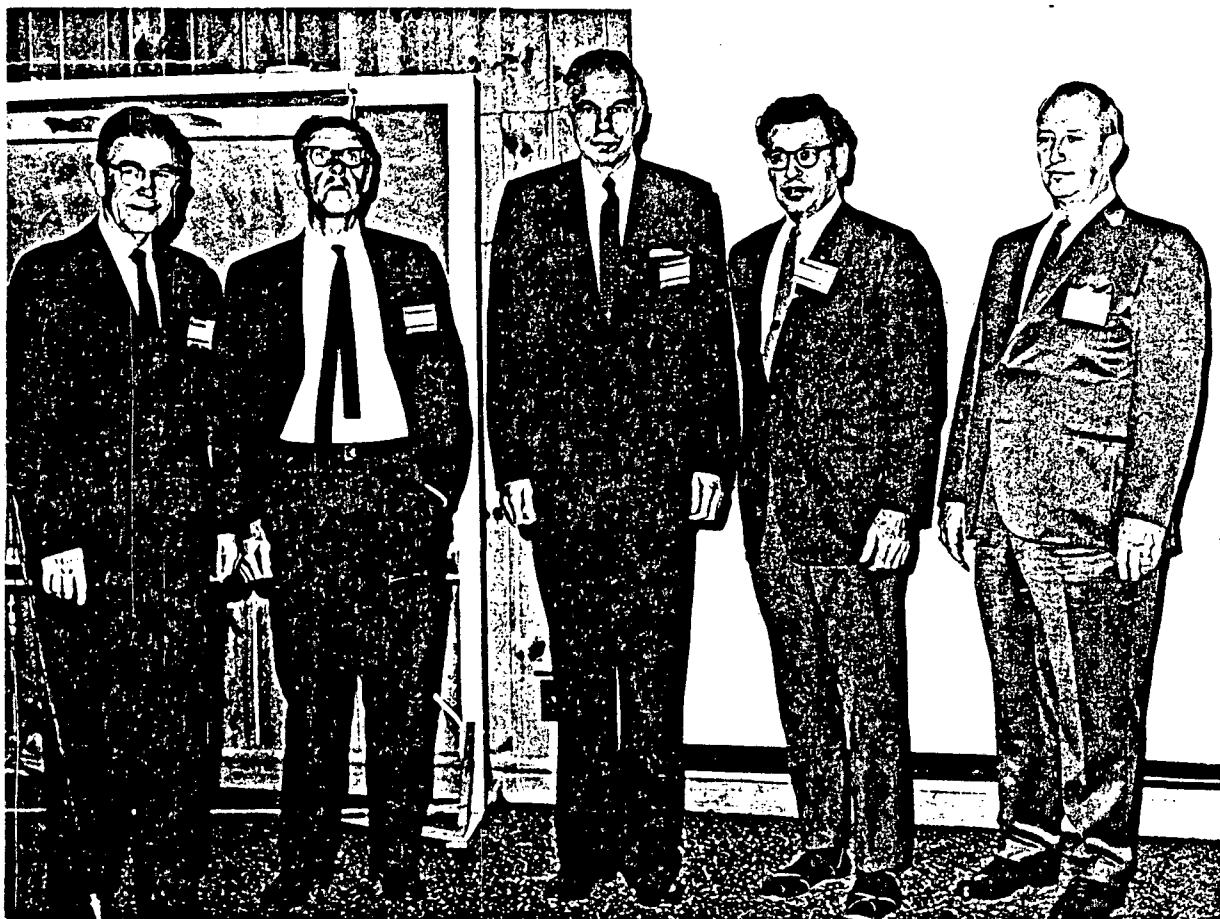
Chairman Seaborg  
Commissioner Ramey  
Commissioner Tape  
Commissioner Johnson  
Commissioner Costagliola

the old Mountain View Hotel, where Helen and I stayed in September 1942).

Tuesday, October 8, 1968- Gatlinburg- Oak Ridge

Arnie Fritsch and I had breakfast in the Mountain View Motor Lodge dining room with Al Ghiorso, Larry Corbin (ORNL Analytical Chemistry Division), A. R. VanDyken and Charles Metz (LASL).

I gave my talk, "New Outlook for Transuranium Elements," with slides, at 9:10 a.m. in the nearby Huff House auditorium, to the 12th Annual Conference on Analytical Chemistry in Nuclear Technology. This was based on my article "Elements Beyond 100, Present Status and Future Prospects" for Annual Review of Nuclear Science. Myron T. Kelly (Head, ORNL Analytical Chemistry Division), and George Boyd (who presided) spoke first; Boyd introduced me.



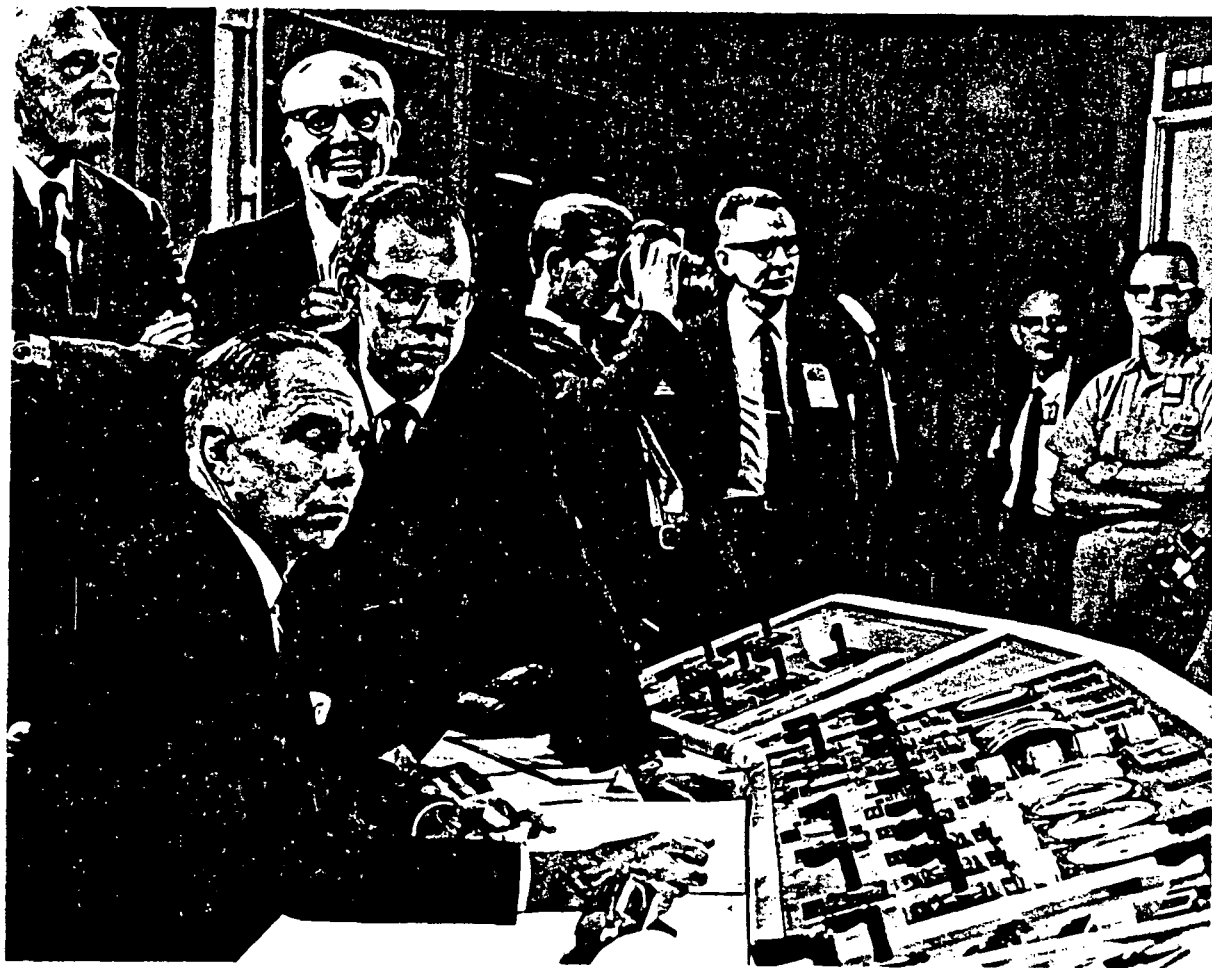
At Symposium on Analytical Chemistry of the Actinide Elements  
Gatlinburg, Tennessee, October 8, 1968  
L to R: M. T. Kelley, G. E. Boyd, Seaborg, A. Ghiorso, and L. T. Corbin

I then rode with Corbin, together with Fritsch and Lew Keller, to Oak Ridge National Laboratory, arriving about noon. We visited the Transuranium Laboratory. Here I visited the laboratories of and talked with Leonard J. Nugent, Curt Bemis (Glen Gordon's graduate student), John Burnett, J. H. Burns, Tanner, J. R. Tarrant, Dick Hahn and others. We then went to an informal

luncheon about 1 p.m. in the cafeteria, which was attended by Alvin Weinberg, Clarence Larson, Joe Katz, Stone (NIH), Paul Emmett, E. A. Mason, Don Ferguson, Floyd Culler, MacPherson, Commissioner Johnson, Jerry Helfrich, Hibbs, Hans Neurath, Wende, Cope, Roth, Rosenthal, Arnie Fritsch, and many others.

Following lunch Weinberg, Johnson, Helfrich, Fritsch, Larson, MacPherson, Culler, Hibbs, Wende, Cope, Roth and I assembled in Weinberg's office to discuss desalting (especially as concerns the UAR project) and nuclear waste disposal. Before this, at lunch, I talked to Katz about writing a history of our chemistry group at the Metallurgical Laboratory (1942-46) and the possibility of a 25th anniversary observance of the discovery of elements 95 and 96. I also talked to Don Ferguson about obtaining some more californium-249 for Ghiorso's experiments on element 104.

I then spoke, following talks by Paul Haubenreich (in charge of the MSRE), Murray Rosenthal and Alvin Weinberg, on "Uranium-233 a Generation After Its Discovery: A Future of Promise" at the ceremony marking the first operation of the Molten Salt Reactor Experiment with U-233. I was presented with a container which had been used to charge U-233 in the reactor. I then operated the controls to start up the operation of MSRE, up to 100 MW, on U-233.



At the controls for the U-233 Ceremony at Oak Ridge, Tennessee  
October 8, 1968



Following this I met in an office in the MSRE building with Weinberg, Larson, Culler, MacPherson, Commissioner Johnson, and Fritsch, at which session Johnson and I tried to convince Culler to accept the position of deputy director of the AEC's Division of Reactor Development and Technology. The chances don't look too good because Culler feels working with Shaw in this capacity would be untenable.

Fritsch and I then rode back to Gatlinburg with Corbin. We took a hike from Cherokee Orchard on the trail to Mt. LeConte (the same trail Helen and I hiked in September 1942).

We then went to the conference social hour in Huff House. Here Jim Walls (Gatlinburg Chamber of Commerce) presented me with a humorous "Country Cousin" scroll conferring a sort of honorary membership in the Gatlinburg Chamber of Commerce. In my response I referred to the visit of Helen and me to the Mountain View Hotel in September 1942 and the visit of our family to Gatlinburg in 1964. At the reception I talked to Sherman Fried about the (II) oxidation states of the heavy actinides.

At 8 p.m. I went to a dinner in my honor in the Dogwood Room of the Mountain View Motor Lodge, attended by Mr. and Mrs. Kelly (hosts), Mr. and Mrs. Boyd (who also sat next to me), Ghiorso, Jim Harris (of Ghiorso's group), Fritsch and others. Following dinner Ghiorso, Fritsch, Harris and I took a walk on Gatlinburg's main street.

My biweekly letter reported was transmitted to the President (copy attached).

Wednesday, October 9, 1968- Gatlinburg- D.C.

I had breakfast with Dr. Kelly, Dr. Corbin, Jim White, A. E. Cameron, W. E. Foster, Al Ghiorso and Arnie Fritsch. I then went to Huff House to hear Ghiorso speak on "The Recent Research on the Heaviest Elements." In this talk, which included a 20-minute film on the chemistry of lawrencium, he announced for the first time publicly that he and his group have failed to confirm the Soviet (Flerov's group) work on a 0.3 second S.F.  $104^{260}$ . He also announced his evidence for a 12 ms S.F.  $104^{258}$  and a  $104^{257}$  alpha emitter.

Ghiorso played golf on the Gatlinburg course with Jim Harris and others, as he had done yesterday.

Fritsch and I took a ride around the Smokey Mountain National Park with Corbin. We then picked up Mrs. Corbin and drove via the Cady Cove Road through the Park, attempting to find some of the spots Helen and I visited in 1942, and on to the Knoxville airport where Fritsch and I caught United Airlines Flight No. 592 to Washington, leaving at 1:50 p.m. and arriving at 3:05 p.m.

I spent the rest of the afternoon in the D.C. office.

I signed a letter (copy attached) to William C. Foster (ACDA) regarding his proposed ENDC speech, proposing a cutoff of the production of fissionable material for use in nuclear weapons.

Thursday, October 10, 1968- D.C.

At 10 a.m. I presented a Certificate of Appreciation to Warren Nyer, who has left his position as Vice Chairman of the Atomic Safety and Licensing Board Panel to go with Gulf General Atomic. Algie Wells, James Yore, Arnie Fritsch,

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

ENCL. BY DOE  
NOV 86

October 8, 1968

OFFICE OF THE CHAIRMAN

The President  
The White House

Dear Mr. President:

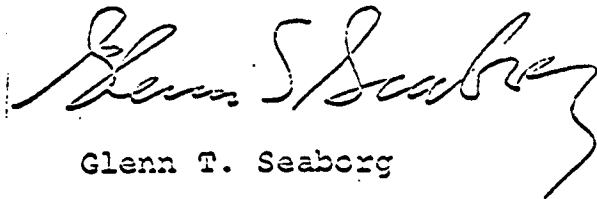
I have the pleasure of submitting the biweekly report on significant developments in the atomic energy program:

1. Senate action on the nomination of Frank Costagliola was prompt and he was sworn in as the fifth Commissioner on October 1. I administered the oath of office in a ceremony in the JCAE hearing room in the presence of ranking members of the Joint Committee.
2. The 12th General Conference of the International Atomic Energy Agency was concluded in Vienna on September 30. The IAEA's possible role under the Non-Proliferation Treaty was highlighted in speeches not only by myself but by the Director General, Sigvard Eklund, and a majority of the delegates. Three possible activities are involved: safeguards, development of peaceful uses, and peaceful nuclear explosion services. The U.S.-sponsored resolution supporting IAEA competence to perform the peaceful nuclear explosion services function was approved. I have written to you separately covering the conference highlights and my visit to Germany on the way to Vienna.
3. AEC issued a statement in Nevada on September 30 indicating that some low order earth tremors have occurred after the larger underground nuclear detonations in the test areas. The AEC nuclear test organization has noted what may be unusual seismic activity which is generally confined to an area within 30 miles of the detonation. While AEC does not believe that this activity constitutes a hazard to the public, the matter is being investigated further. Newspaper accounts on this matter have generally stayed within the context of the news release.
4. An AEC Atoms-In-Action Science Demonstration Center was scheduled to be opened in Cordoba, Argentina on October 5. However, damage to the roof of the portable air-supported building caused by an exploding fire bomb has forced postponement of the opening. According to available information, the bomb package was left by two men who ran from the scene. A police guard who went to investigate

was injured when the package exploded. It will be more than a week before the damage can be repaired and the center opened. It was planned to have President Juan Carlos Ongania open the exhibit, which is located on the campus of the University of Cordoba.

5. AEC and the Department of Interior have signed a Memorandum of Agreement with four utilities to continue studying alternatives for a dual-purpose nuclear power and desalting plant in southern California. AEC and Interior also have modified their contracts with the Metropolitan Water District to extend Government participation until the end of 1968. Last July, the participants announced that alternate plans for a nuclear power/desalting plant would be examined in view of the fact that the Bolsa Island project, as then constituted, was determined not to be economic for some of the participants.
6. NASA has announced that parts of components of the Nimbus-B spacecraft which fell into the sea off the southern California coast after a launch malfunction on May 18 have been sighted by the crew of a small search submarine. The primary objective of the search has been two nuclear power SNAP-19 generators which were to provide supplementary power for the experimental weather satellite. Recovery operations are now under way in 300-350 feet of water about four miles north of San Miguel Island.

Respectfully yours,



Glenn T. Seaborg

cc: Bromley Smith

Distribution:  
Chairman -2 ✓  
Commissioners -1 ea.  
GM -2  
DCM, AGM, AGM/A  
Secretariat -2  
OGC  
DIA  
I  
PROD  
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DISARM of:  
A.Labowitz rf

OCT 9 1968

Honorable William C. Foster, Director  
Arms Control and Disarmament Agency  
Washington, D. C. 20520

Dear Bill:

Events in Czechoslovakia seemed to have overtaken any urgency for the INBO speech proposed in your memorandum of August 16, 1968 and thus, the need for my immediate reply. I believe, however, that you would be interested in our general views on the subject of an agreement for a cutoff of production of fissionable materials for use in weapons.

From the standpoint of AEC's responsibilities, we are principally concerned with the effect that a cutoff would have on the ability of the AEC to meet possible weapon production requirements. To that end, we plan to make a study of our ability to meet foreseeable requirements for fissionable material and tritium under conditions of a cutoff, and will be happy to make the results of that study available to the agencies represented on the Committee of Principals.

Changes in US requirements for fissionable material and tritium for weapons, in projected demands for fissionable materials for non-weapon use, and in AEC's production capabilities have occurred since the Committee of Principals last reviewed the US position on a cutoff, several years ago. We believe that another review by the Committee of Principals would be very useful in terms of over-all perspective concerning the desirability of a cutoff.

We are also concerned about the present adequacy of the inspection procedures which were outlined in 1964 (INBO/134) to apply to nuclear-weapon states under a cutoff agreement. In particular,

Reference - Information Meeting 825, 8/27/68

demands for uranium enriching services to provide fuel for nuclear power reactors have expanded at a much greater rate than foreseen in 1964, and this raises a question as to the suitability of the monitoring procedures provided for in ENDC/134. Progress in the development of the technology of uranium enrichment by gas centrifuge has also been substantial. The procedures for monitoring operating uranium enrichment plants were based on the premise that such plants would continue operation at low production rates to meet demands for enriched uranium for non-weapons use, and that those demands would be small relative to existing stocks of fissionable material. ENDC/134 recognizes that the monitoring procedures will have to be reviewed "as peaceful uses grow and involve substantially larger quantities of fissionable material." We believe that it would be desirable to consider whether the monitoring procedures outlined in ENDC/134 are still appropriate in the changed circumstances. Accordingly, we intend to study this question and will make the results of our study available to the agencies represented on the Committee of Principals.

In order that our studies may be most useful, we would appreciate your providing us with the specific language of the cutoff proposal you would like to have considered for possible use at the ENDC.

With respect to the existing alternate proposal of plant-by-plant shutdowns, we believe that US actions since 1964 require that such a proposal be reformulated. We now have completely shut down two production reactors and have placed five others in standby. The reactors in standby are available for our use, given adequate lead time, for the production of plutonium or tritium for use in weapons or, alternatively, for production of materials for non-weapons use. Furthermore, some of the reactors still in operation are being used entirely for the production of materials for uses other than weapons. Accordingly, we believe that if and when any plant-by-plant offer is restated, consideration should be given to phrasing it in such a manner that it comprehends the following alternative actions: (1) shutting down permanently, under verification, of an operating reactor; (2) placing in standby under verification (for possible subsequent verified operation for permitted uses) of a currently operating reactor; (3) placing under verification a reactor already shut down or in standby, which had previously been a source of fissionable material for use in weapons; or (4) placing a currently operating reactor under verification to assure that the material being produced is only for permitted uses.

Cordially,

(Signed) ~~Chairman~~

Chairman

Julie Rubin and John Harris were present in my office when I made the presentation.

At 10:30 a.m. I taped an interview based on my Arches of Science Award talk for the "Voice of America" under the direction of Laszlo Dosa as producer.

At 11:45 a.m. I met with Professor Warren E. Henry (working at LRL and Howard University temporarily) about his program of low temperature magnetic measurements on plutonium compounds using Professor William F. Giauque's magnet.

At 12:40 a.m. I had lunch in the AEC dining room with Abe Friedman, George Spiegel, Harold Bengelsdorf, Stan Schneider, Julie Rubin, and Arnie Fritsch to discuss the content of and plan for my Grinnell College speeches, "The Rosenfield Lectures," to be delivered on January 29 and 30, 1969.

I received a letter from Charles Zwick saying he has decided to apportion the FY 1969 money for the Los Alamos Meson Facility. This is a great victory for us. I called Norris Bradbury, Louis Rosen, Senator Clint Anderson, and Congressman Joe Morris to give them the good news.

At 3 p.m. I received a call from George Mueller (NASA), calling from Cape Kennedy. He said they have been doing some rethinking on what will be involved in the first lunar landing and now feel that from a safety standpoint the first mission should be limited to a single period of exploration rather than the two periods originally scheduled. The implication is that SNAP 27 would not be used on the first mission but rather on the second, which would hopefully take place within a few months of the first. I asked him if the decision has already been made and he said it virtually had, but he wanted to touch base with me before making a final decision. He said he doesn't think there would be any impact as far as SNAP is concerned since it would be used on the second mission, which shouldn't interfere with basic schedules. I said I didn't know offhand what the full impact would be but that I would talk with the people involved and will let him know.

At 5:10 p.m. Harry MacPherson (White House) called me and said that the President will be making a number of long-range view speeches and he would like to give one on the subject of atomic energy in the next decade. He said it should get outside of today's budgetary and legislative constrictions and should discuss what the nation ought to do with this resource. He asked me if I would put my hand to this and come up with an 1800-3000 word draft in about three weeks. It is not certain just where the President would use it so that should give me a great deal of freedom. I said I would be glad to do it.

Bill Markert of Ishpeming, now of Washington, D.C., called; we will get together soon, we hope.

Eric, Suki and I took a hike in Rock Creek Park.

Friday, October 11, 1968- Germantown

At 10:10 a.m. I called Jim McKenna (Senator Pastore's assistant) and asked him to pass on to the Senator the information that in connection with our consideration for the future of our gaseous diffusion plants, we are considering a government corporation as a possible method of operating, as well as the transfer to private industry that the Atomic Industrial Forum has been recommending; that we haven't made up our minds yet but did want him to know what is being considered. He said he will tell this to the Senator who has been

tied up in conference for the past two days.

At 10:20 a.m. I presided over Information Meeting 836 (notes attached).

At 11 a.m. I saw on TV the Apollo 7 takeoff of Walter Shirra, Cunningham and Eisele for an 11-day ride through space at the approximate 100 mile altitude as part of the moon landing program.

At 12:45 p.m. Arnie Fritsch, Justin Bloom and I went to the National Bureau of Standards where we had lunch with Wayne Meinke and the organizing committee for the 1968 International Conference on Modern Trends in Activation Analysis that is being held at the Bureau this week.

After lunch I spoke briefly to the conference participants (several hundred). I recalled the 1938 work by Jack Livingood and me on activation analysis (published in the proceedings of the conference), the first to use charged particles, and described the potential for the use of californium-252.

At 3 p.m. Commissioners Johnson, Tape, Costagliola, and AEC staff visited our computer center in the basement of our Germantown headquarters--this will make a large contribution to increasing the efficiency of our operation.

#### Saturday, October 12, 1968- D.C.

I worked at the D.C. office in the morning and at 12:30 p.m. had lunch at the Pot O' Gold Restaurant with Julie Rubin.

I played nine holes of golf at the Chevy Chase Club with Steve--he won, 51 to 50.

Helen and I went to dinner at our neighbors', Charles and Harriet Schwartz', on Huntington Street. Among those present were Reverend and Mrs. Channing Phillips, Mr. and Mrs. Dan Gifford (he is Ted Kennedy's legislative assistant), Mr. and Mrs. Ziegler (she is Schwartz' sister, he is Sam Neel's law partner), Mr. and Mrs. Pelsman, and Mr. and Mrs. Vandespool.

#### Sunday, October 13, 1968- D.C.

Helen, Steve, Dianne and I went to the Washington Redskins-Pittsburgh Steelers football game in the D.C. Stadium. The Redskins won, 16-13. Eric was sick.

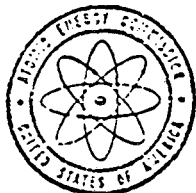
#### Monday, October 14, 1968- D.C.

At 9:45 a.m. I presided over Information Meeting 837 (notes attached).

At 10:15 a.m. I presided over Regulatory Information Meeting 315 (notes attached).

At 11 a.m. I presided over Executive Session (Adjudicatory) 178, at which the Commission approved the Memorandum and Order dated October 14, 1968 regarding the Philadelphia Electric Company (Peach Bottom Atomic Power Station Units 2 and 3) Docket Nos. 50-277, 50-278.

At 11:30 a.m. the Commissioners and the General Manager met with members of the General Advisory Committee--Norman Ramsey (Acting Chairman), Herbert Friedman (new member), Lombard Squires (new member), Howard Vesper, Stephen Lawroski, 335



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

COPY NO. 2  
October 11, 1968

INFORMATION MEETING 836

10:20 a. m. , Friday, October 11, 1968, Room A-458, Germantown Headquarters

1. October 9 Letter from Charles Zwick, Director, BOB, re Meson Facility

Noted.

2. Use of SNAP 27 Device in Manned Mission to the Moon

The Chairman reported briefly on his conversation with NASA and requested staff views on the NASA decision. (SNS)

3. October 8 Letter from Mr. Zalman Shapiro, NUMEC, re Availability of Pu-238

Staff recommendations are requested. (P)

4. Topics for the Commissioners' Meeting with the General Advisory Committee, 11:00 a. m. , Monday, October 14

5. October 4 Letter from Philip Sporn re Private Ownership and Operation of the Commission's Uranium Enrichment Facilities

Noted.



6. October 10 Nucleonics Week Article re B&W Pressure Vessel Production Problems

Commissioner Johnson requested:

- a. Tabulation of prospective plant delays
- b. A report on the regulatory implications of approval of pressure vessels fabricated abroad
- c. Appropriate staff attendance at his October 16 Meeting with B&W officials.

(O'Donnell-RDT-ADRA-SECY)

7. Agenda for the Week of October 14, 1968

Approved. (SECY)

8. NTS Events (See General Giller's October 10 Memorandum)

Noted. (AGMMA)

9. AEC 141/105 - Seismicity in Nevada (See also AEC 141/106)

Noted. (AGMMA)

10. AEC 636/25 - Columbia River Thermal Effects Study

Noted. (AGMO)

11. AEC 180/48 - Proposed Appointment to NAS Committee on Radioactive Waste Disposal

Noted. (AGMO)

12. Apollo 7 Launch

13. AEC 460/105 - Enrichment Services Briefing for Foreign Executives

Staff recommendations are requested. (AGMIA)

14. AEC 478/110 - Nuclex '69 Exhibit

Noted. (TI)

15. Pending Contractual Matters Report No. 278

A report on the proposed contract for investigation of the practicability of using Ionizing Radiation for the Treatment of Sewage and Wastewater is requested. (ID)

16. Commissioners' Tour of the AEC Computer Center, 3:00 p.m. Today

W. B. McCool  
Secretary

11:25 a.m.

PRESENT:

COMMISSIONERS:

Chairman Seaborg  
Commissioner Tape  
Commissioner Johnson  
Commissioner Costagliola

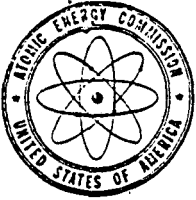
STAFF:

Mr. Bloch  
Mr. Schur  
Mr. Schoenhaut  
Mr. Kull  
Mr. Rubin  
Mr. Ritzmann  
Mr. McCool  
Mr. Quinn\*  
Mr. Winter\*  
Mr. Kratzer\*  
Mr. Pelzer\*

DISTRIBUTION:

Commissioners  
General Manager  
General Counsel  
Secretary

\*Attendance by Topic (s)



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

UNCL. BY DOE  
NOV 86

COPY NO. 2  
October 14, 1968

INFORMATION MEETING 837

9:50 a.m., Monday, October 14, 1968, Chairman's Conference Room, D. C.

1. October 11 Letter from Senator Anderson re Dutch Request for US Assistance in Acquiring Naval Nuclear Propulsion Capability

Staff views are requested. (AGMIA)

2. Commissioner Ramey's October 8 Memorandum re Establishment of an Atomic Safety and Licensing Appeal Board

Staff views are requested. (GC)

3. October 7 Letter from Jean Van Der Spek re Inga Hydroelectric Project

Commissioner Johnson will respond to the letter. (O'Donnell)

4. AEC 972/18 - Transmittal of AEC History to JCAE

Approved. (SECY-Congr.)

5. AEC 1282/11 - Execution Data for a Portion of the Bowline II Events

Approved. (AGMMA)

6. AEC 141/107 - Technical Briefings on Nuclear Testing Safety

Approved with changes and a request. (AGMMA)

7. AEC 333/56 - ARPA Nuclear Technology Study  
Noted. Commissioner Costagliola will plan to attend. (AGMMA-SECY)
8. AEC 1292 - Cooperative Study of Nuclear Energy Centers for Puerto Rico  
Approved. Commissioner Ramey is authorized to sign the Memorandum of Understanding on October 31, 1968. (RDT-SECY)
9. AEC 1246/8 - A. D. Little Report on Competition in the Nuclear Power Supply Industry  
Approved with changes. (IP)
10. AEC 1284/3 - Estimated Production Indicated Prices for Californium 252  
Noted. Any comments will be addressed to staff today. (P-SECY)
11. October 11 Letter from Philip Hughes, BOB, re Cascade Power  
Noted.
12. AEC 610/130 - Progress Report, Gas Centrifuge Development Program, July 1967-June 1968  
Noted. (AGM)
13. AEC 1283/26 - Program Memorandum on Terrestrial Electric in Power Development  
Noted. Any comments will be addressed to staff today. (SNS-SECY)
14. Commissioners' Luncheon Meeting with Dr. Sigvard Eklund, Director General, International Atomic Energy Agency  
To be scheduled. (AGMIA-SECY)
15. AEC 592/30 - Requests for AEC Assistance on SENA and SELNI Nuclear Power Plants  
Approved. (AGMIA-DDR)

W. B. McCool  
Secretary

10:15 a. m.

PRESENT:

COMMISSIONERS:

Chairman Seaborg  
Commissioner Ramey  
Commissioner Tape  
Commissioner Johnson  
Commissioner Costagliola

STAFF:

Mr. Hollingsworth  
Mr. Bloch  
Mr. Brown  
Mr. Hennessey  
Mr. Rubin  
Mr. Kull  
Mr. McCool  
Mr. Winter\*  
Mr. Tesche\*  
Mr. Williams\*  
Mr. Tremmel\*  
Mr. McColley\*  
Mr. Wells\*  
Mr. Yore\*

DISTRIBUTION:

Commissioners  
General Manager  
General Counsel  
Secretary

\*Attendance by Topic (s)

ACTION MEMOS - INFORMATION MEETING 837, October 14, 1968-1

AEC 972/18 - Transmittal of AEC History to JCAE

ENCL. BY DOE  
NOV 86

At Information Meeting the Commission approved the draft letter transmitting Volume II of the AEC History to Mr. Conway, Executive Director of the JCAE. Mr. O'Neill, Director, Office of Congressional Relations, signed the letter on October 14, 1968.

AEC 1282/11 - Execution Data for a Portion of the Bowline II Events

At Information Meeting the Commission approved the execution data for [REDACTED] CREW, and KNIFE B, presently scheduled for BOWLINE II, and the DMA recommendation that the Manager, Nevada Operations Office, be authorized to conduct the five events.

AEC 141/107 - Technical Briefing on Nuclear Testing Safety

At Information Meeting the General Manager recommended and the Commissioners agreed that a decision on the proposed unclassified briefings be deferred pending the results of the classified technical briefings on November 7 and 8, 1968, under the sponsorship of the Office of Science and Technology.

AEC 1292 - Cooperative Study of Nuclear Energy Centers for Puerto Rico

At Information Meeting the Commission: (a) Approved the draft Memorandum of Understanding on the US-Puerto Rican Cooperative Study of Nuclear Energy Centers and the proposed public announcement for release, if desired at the time the Memorandum is executed; and (b) Approved the designation of Commissioner Ramey as the authorized representative of the AEC to sign the Memorandum of Understanding on October 31, 1968.

AEC 1246/8 - A. D. Little Report on Competition in the Nuclear Power Supply Industry

At Information Meeting the Commission approved the publication plan for the A. D. Little Report, with changes requested in the notice to be printed on the inside front cover of the Report.

CLASSIFICATION CANCELLED  
WITH DELETIONS  
BY AUTHORITY OF DOE/OC

*[Signature]* 2/10/86  
DATE

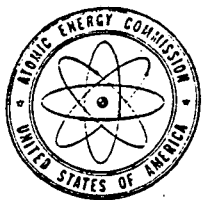
*[Signature]* 2/10/86

<p>OFFICE DIARY GLENN T. SEABORG Chr USAEC, 1961-72 FOLDER-PAGE <u>94092</u></p>
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ACTION MEMOS - INFORMATION MEETING 837, October 14, 1968-2

AEC 592/30 - Requests for AEC Assistance on Sena and  
Selni Nuclear Power Plants

At Information Meeting the Commission approved the Assistant General Manager for International Activities' recommendation that AEC provide assistance on two pressurized water reactors supplied by Westinghouse for the Sena and Selni nuclear power plants. AEC assistance for these reactors, which require extensive repair and modification to the pressure vessel internals, would consist of reviewing Westinghouse's reports covering the proposed changes and the calculations intended to establish the adequacy and acceptability of such changes.



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

REGULATORY INFORMATION MEETING 315

10:15 a.m., Monday, October 14, 1968, Chairman's Conference Room, D. C.

1. AEC 592/30 - Requests for AEC Assistance on SENA and SELNI Nuclear Power Plants

Approved. (AGMIA-DDR)

2. Dr. Beck's October 10 Memorandum re ACRS Views on Publication of Sabotage Report

To be scheduled for discussion with the ACRS at the Commissioners' next meeting with the Committee. Commissioner Ramey requested consideration of preparation of a revised report. (GC-SECY)

3. AEC-R 167/5 - Staff's Comments on OPPD's Provisional Construction Permit for Fort Calhoun Station No. 1

To be rescheduled. (DR-SECY)

4. Dr. Beck's October 10 Memorandum re ACRS Interest in Reactor Safety Conferences with United Kingdom (UK), Germany and Japan

Approved. (ADRA)

5. Mr. Price's October 11 Memorandum re ACRS Subpoena Letter

The Chairman's September 13 Letter to the Chairman, ACRS, may be released. (ADRA-SECY)

W. B. McCool  
Secretary

11:00 a.m.



PRESENT:

COMMISSIONERS:

Chairman Seaborg  
Commissioner Ramey  
Commissioner Tape  
Commissioner Johnson  
Commissioner Costagliola

STAFF:

Mr. Price  
Mr. Morris  
Mr. Hennessey  
Mr. Rubin  
Mr. Wells  
Mr. Yore

DISTRIBUTION:

Commissioners  
Dir/Regulation  
General Counsel  
General Manager  
Secretary

Jane Hall, William Webster, Edwin Goldwasser, and Melvin Harrison (Executive Secretary). I made a report to them covering 1) the Fermi Award (our choice of John Wheeler and our suggestion of Walter Zinn as well as Norris Bradbury for future awards), 2) the 12th General Conference of the IAEA (especially the favorable discussion of the NPT and my visits to Brussels, Julich Research Institute, DESY, and the OTTO HAHN), 3) the problem of after-shocks in connection with our nuclear weapons testing in Nevada, 4) the Ad Hoc Panel to assess the safety aspects of the Nevada weapons testing program, 5) the future of our gaseous diffusion plants (including our consideration of a government corporation and an OVEC-like consortium), 6) our plans for production of californium-252, 7) the status of our Plowshare discussion with the Soviets, 8) the role of desalting plants in the Mid East, and 9) the status of our FY 1970 budget. (Copy of letter of October 16, 1968 covering 106th meeting attached.)

At 12:30 p.m. Tape and I had lunch at the Roger Smith Hotel with Ramsey and Vesper. Vesper will probably be the chairman of the GAC beginning in January. We discussed the future of the gaseous diffusion plants.

I received a letter from Eugene C. Patterson resigning from the Board of Trustees of Science Service.

Helen and I attended a parents' night at Alice Deal Junior High School, a mock school session at which we attended Eric's classes in the rooms and sequence in which he attends them during the day. We visited the following classes and teachers: Home Room (Mrs. Page), Biology (Miss Hill), French (Miss Botkin), Ancient and Medieval History (Mrs. Unger), Typing (Mrs. Page), lunch (cafeteria), Geometry (Miss Wassman), and English (Miss Fort).

#### Tuesday, October 15, 1968- D.C.- Seattle

At 10 a.m. Commissioners Tape, Johnson, Costagliola, Bob Hollingsworth, Ed Bloch, Ed Giller, and I met with Vice Admiral Lloyd M. Musten (new Chief of DASA). This was to get acquainted. He described some of the problems that DASA has in obtaining good service people to associate themselves with the organization.

At 12:30 p.m. I had lunch in my office with Arnie Fritsch and Stan Schneider to discuss the speech, "Atomic Energy in the Next Decade," that I am preparing for President Johnson. (The speech was subsequently transmitted to the White House on October 29, 1968.)

At 1:30 p.m. I received a telephone call from Bob Penneman (LASL). He asked whether I could be in Los Alamos for a heavy elements meeting on November 7th and 8th, or at least on November 8th. I said that if it's at all possible I would do it; however, I believe I have another commitment. He said that the Division is going to nominate Don Cromer for the Lawrence Award, and he wondered whether it would be appropriate for me to write a supporting letter. I said I would check to see whether or not it would, but in the meantime asked that he send me all the details summarizing Cromer's work. Bob said I would have it by the end of the week.

At 2:15 p.m. I presided over Information Meeting 838 (notes attached). I signed a memo to Walt Rostow requesting presidential approval for the execution of Schooner, the 40-kiloton Plowshare cratering shot; this will probably meet with some resistance from within and without government because of fears that it might lead to violation of the Limited Test Ban Treaty. (Letter was dispatched on October 16, 1968.)

GENERAL ADVISORY COMMITTEE  
TO THE  
U.S. ATOMIC ENERGY COMMISSION  
P.O. BOX 19029  
WASHINGTON, D.C. 20036

October 16, 1968

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

*AS 10/12/68*

Dear Glenn:

The 106th Meeting of the General Advisory Committee was held at the H Street offices of the Atomic Energy Commission, in Washington, on October 14, 15 and 16. All Committee members except John C. Bugher were in attendance. Those attending were Herbert Friedman, Jane H. Hall (absent on Oct. 16), Edwin L. Goldwasser, Stephen Lawroski, Lombard Squires, Howard G. Vesper, William Webster, and Norman F. Ramsey, temporary chairman. The Scientific Officer and Secretary, Melvin A. Harrison and Anthony A. Tomei, were also in attendance.

Recommendations, comments, and actions relative to this meeting are summarized below.

1) Commercial Nuclear Power

The Committee listened to a comprehensive presentation by Mr. Milton Shaw that covered the full range of our commercial nuclear power program. It seems best to consider this in two parts.

First is the present situation brought about by the many orders for nuclear reactors by the nation's utilities for the next five years' additions to our national generation capacity. At present we are operating only a handful of small to medium size nuclear plants and there are on order some sixty large plants with a planned capability of forty or fifty thousand megawatts. Mr. Shaw pointed out that most of these plants are of larger size than any now operating, that they embody new and different types of equipment and that many of them are being ordered by companies with no prior nuclear background. He indicated the chances for delays and the probability that many start-up dates would not be met. Moreover, for the first year or two these new plants may be operated at less than the full design level as well as at an intermittent rate. He indicated, too, that a major training and educational problem exists.

When we consider that these units represent over half of the nation's planned electric power additions in the early seventies it is obvious that we have a major stake in seeing that the program is carried out properly and promptly. In view of the tremendous and growing importance of electric power, any shortage of supply or impairment of service will be a critical matter. This could reflect unfavorably on the AEC, deservedly or not.

It seems to the GAC that this is a matter of major concern and one not fully appreciated by the general public.

The problem of sharply increasing costs of reactor plants is improperly understood. We believe that an investigation of what may be in prospect for these costs is important. The result will affect both the eventual pace of the nuclear power program and decisions between types of reactor plants.

Of greatest immediate importance, however, is the very real possibility of serious power shortages in the early 70's if potential delays do materialize in nuclear plant completions. We understand the Commission is fully aware of this and is working with utilities and suppliers to insure everything possible is being done to minimize this. The GAC fully supports this effort and urges that it continue in the most effective way possible. We understand that this is a matter of concern to all segments of the industry and feel that in a year or two we may have a better view of the situation.

The second thing that Mr. Shaw touched on was the fast breeder program and the need to make decisions as to which types of advanced converters and breeders should be supported. The GAC feels that, important as this long range program is, it is of less immediate concern than is the proper handling of the greatly accelerated water-reactor expansion. However, it is important that the Commission keep informed on the relative merits of proposed projects and types of reactors in order that it can re-examine, as appropriate, the priorities presently applying to the advanced reactor program.

## 2) Nuclear Materials Safeguards

The safeguards program both in this country and abroad was outlined for the Committee by Brig. Gen. D. L. Crowson, Director of the Office of Safeguards and Materials Management (OSMM) and Mr. Myron B. Kratzer, Asst. Gen. Mgr. for International Activities. Gen. Crowson pointed out that OSMM and the somewhat parallel Division of Nuclear Materials Safeguards reporting to the Director of Regulation had been in operation for about one year as a result of recommendations of the Lumb panel report. He described the operational function of the two organizations relating to appraisal of AEC field offices and contractors on the one hand and regulatory organizations and licensees on the other; however the thrust of his remarks was directed to the R&D program of the Office and the problems facing the safeguards effort in the immediate future.

The R&D program is central to the success of our safeguards effort. Two types of programs are actively under investigation by a number of laboratories: (a) system studies, chiefly by Battelle Northwest Laboratory and the Bureau of Standards to develop standards for the entire fuel cycle for instance (where material goes and how to account for it), and, (b) technical studies by LASL, GGA and others to develop effective instrumental analysis for determination of fissile material in scrap, fuel rods and other forms. The objective of these studies is to improve the effectiveness and reduce the cost of applying safeguards to nuclear plants both in this country and abroad. The work already shows much promise.

Gen. Crowson listed the following as problems, important for future application of safeguards, which are receiving active attention:

- (a) Distribution of costs for applying safeguards.
- (b) Resident inspectors at fuel reprocessing plants.
- (c) R&D budget distribution.
- (d) Safeguards during transportation of material.
- (e) Safeguards of materials during transfer between AEC and DOD.
- (f) Safeguards for enrichment plants.
- (g) IAEA inspection of U. S. facilities.

Mr. Kratzer reviewed the international aspects of safeguards since the initial effort after World War II. The first implementation of safeguards under the Atoms-for-Peace program was implemented administratively by means of bilateral treaties of which some thirty have been made. The next major step was the formation of the IAEA and many of our bilateral treaties have been replaced by negotiated agreements for IAEA inspection. IAEA inspection is presently in good balance with needs but will have to grow. This raises problems of who pays and how. The NPT is the most recent forward step and problems of its implementation are receiving active study.

The Committee was impressed with progress that is being made to bring into focus the difficult and vital safeguards problems. It is strongly of the opinion that a vigorous and effective technical program to develop improved systems and instruments is essential to the entire effort and should receive adequate funding. The Committee would like to review the progress of the program annually during these important formative years.

### 3) Space Nuclear Systems

SNAP-19 Capsule Recovery. The Committee heard an interesting account by Mr. Milton Klein of the efforts leading to the recent successful recovery of the plutonium-238 power source lost last May when the Nimbus-B shot had to be aborted. He reviewed some of the improvements planned to make easier the location and recovery of important components that might be lost in similar future mishaps.

Nuclear Rocket Program. Mr. Klein next summarized the recent progress toward improved fuel elements for the nuclear rocket reactor. The Committee noted with interest that operation of the reactor for as long as one hour at power has been achieved with the new fuel elements.

4) Stable Isotopes Report

The Committee has reviewed the "Report on National Uses and Needs for Separated Stable Isotopes" prepared by the Committee on Nuclear Science of the National Research Council (July 29, 1968), which was received from Dr. Paul W. McDaniel, Director of the Research Division. We found it to be both thoughtful and well-executed and believe that it effectively brings out the continuing scientific need for substantial quantities of stable isotopes for the various scientific disciplines. The original program plan was sound, and the estimates of requirements have proven to be minimal in nearly all instances.

With respect to the "pool" of isotopes available on loan for non-destructive studies, while the Committee is not opposed to continuing the program on a partially subsidized basis, we recommend that the Commission consider the adoption of a rental rate schedule that would create an incentive for prompt and efficient use of needed isotopes. This, in turn, would increase the effective supply and, in addition, would tend to channel future production in the most rational manner.

5) Intelligence Briefing

In response to a special request by the GAC, Dr. Charles Reichardt and Mr. Howard Brown met with the Committee to review the recent French atmospheric tests and the current knowledge of Russian underground testing activities. International activities in gas centrifuge technology were also described. Mr. Brown advised the group that as a result of the widespread activities in this area, the Commission plans to review the current security classification of the gas centrifuge research and development programs in the United States.

6) Annual Program Statements of Weapons Laboratories

In a letter dated August 6, 1968, to the Chairman of the GAC, the Assistant General Manager for Military Application asked the GAC to review its need for the annual program statements from the weapons laboratories. The letter stated that the information in the annual statements is available in other publications which are available to the GAC.

The Committee will advise General Giller that, in view of the other sources of weapons information, the annual program statements from the weapons laboratories should not be continued solely on the basis of their usefulness to the GAC. However if the annual program statements are continued for other purposes, we would like them to be available to the GAC.

7) Weapons Subcommittee Plans

After many delays, the Weapons Subcommittee trip to Sandia, Pantex and Rocky Flats has been firmly planned for December 3, 4 and 5, 1968. In addition to Subcommittee members (Dr. Hall, Dr. Lawroski and Dr. Ramsey), Mr. Vesper, Mr. Squires, Dr. Friedman, and Dr. Harrison plan to make these visits. It is hoped that several Commissioners and staff members will also attend.

8) Fermi Award for 1969

In accordance with the Fermi Award bylaws and with concurrence by the Commissioners who were present at the meeting on October 16th, the GAC will solicit nominations for the Fermi Award for 1969 early in January.

9) Election of Chairman

Dr. Ramsey was elected as temporary chairman replacing Dr. Hafstad who served as chairman since 1964. Due to other commitments, Dr. Ramsey felt it impossible to assume the chairmanship on a permanent basis, but agreed to serve through the February 1969 meeting at which time a chairman will be elected for the ensuing year.

10) Subcommittee Reorganization

With two new members on the GAC, it became appropriate to reassign the subcommittee memberships. The new assignments are as follows. Reactors: Messrs. Vesper (chairman), Squires, and Webster; Research: Drs. Bugher (chairman), Goldwasser, and Friedman; Weapons: Drs. Hall (chairman), Ramsey, and Lawroski.

11) 107th GAC Meeting Plans

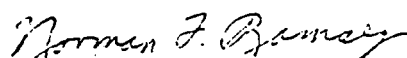
The next meeting of the General Advisory Committee will be held at Oak Ridge, Tennessee, on February 10, 11 and 12, 1969. Agenda topics thus far are as follows:

- (a) Oak Ridge program including discussions of NUPLEX, the Molten Salt Reactor Experiment, gas centrifuge technology, and proposals to transfer uranium enrichment plants to private industry. Tours will be made to the centrifuge machines, diffusion plants, weapons fabrication facility and ORNL.
- (b) Selections for Lawrence Award for 1969.
- (c) Discussion of report by Weapons Subcommittee on its visits in December.

12) 108th GAC Meeting

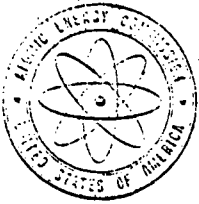
The 108th Meeting is tentatively scheduled to be held on April 23, 24 and 25, 1969, in Washington, D. C. For that meeting, some suggested agenda topics are (a) the annual meeting with the Assistant General Manager for Research & Development, Dr. Spofford G. English; (b) a newly-designated annual meeting with the Assistant General Manager for Military Application, Gen. Edward B. Giller; and, (c) reactor siting safety criteria with Clifford K. Beck, Deputy Director of Regulation, which topic was postponed because of the heavy schedule for Oak Ridge. Additional topics will be added at the 107th Meeting including any the Commission may suggest.

Sincerely yours,



Norman F. Ramsey  
Temporary Chairman





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

COPY NO. --- 2  
October 15, 1968

INFORMATION MEETING 838

2:15 p.m., Tuesday, October 15, 1968, Chairman's Conference Room, D. C.

1. Proposed Letter to the Secretary of State re the IAEA-US-Mexico Nuclear Desalting Study  
Approved with changes. (Rubin-Ritzmann)
2. AEC 811/206 - Proposed Letter to Walt Rostow Regarding Schooner  
Approved with changes. (PNE-Rubin)
3. October 10 Letter from Charles Zwick, Director, BoB, re P. L. 90-364

Noted.

PRESENT: W. B. McCool Secretary 3:10 p.m.

<u>COMMISSIONERS:</u>	<u>STAFF:</u>	<u>DISTRIBUTION:</u>
Chairman Seaborg	Mr. Hollingsworth	Commissioners
Commissioner Ramey	Mr. Bloch	General Manager
Commissioner Tape	Mr. Brown	General Counsel
Commissioner Johnson	Mr. Rubin	Secretary
Commissioner Costagliola	Mr. Rosen	
	Mr. Kull	
	Dr. English	
	Mr. Harris	
	Mr. Kelly	
	Mr. Hamburger	
	Mr. Williams	
	Mr. Oakley	
	Mr. McCool	
	Mr. Kratzer*	

\*Attendance by topic (s)

At 3:25 p.m. Myron Kratzer, Julie Rubin and I met with Gerd Decke, H. C. Arnsperger, and Claus Grossner of the International Student Work Circle of Hamburg, West Germany. The visitors explained that they are on a two-and-a-half-month tour of the U.S. with an overall objective of developing a master plan for research and development activities in Germany. They identified themselves as part of a group being formed along the lines of typical U.S. "think tanks" and are conducting this specific study in a similar manner to a small Rand Corporation. Their objectives cover a wide spectrum that includes what to do with nuclear oriented laboratories working on the fast breeder projects after this activity is completed and redirection of institutes working on military strategic studies to using their technical resources in solving the world food problem, basic research in high energy physics, information retrieval, etc.

Several questions were asked of me involving the advantages and disadvantages of central control of science in a country such as the suggested Department of Science for the U.S. I indicated the answer may not be the same for Germany and the U.S. I further indicated an open mind on the subject, but said for now the individual centers of the direction of science in the U.S., such as AEC, NASA and the DOD, are a desirable method of organization here. Questions were asked on our methods and degree of success in redirecting our national laboratory effort, particularly the weapons-oriented ones, to non-nuclear areas. My answer dealt separately with LRL and Los Alamos versus ORNL and ANL, but, in general, I explained that our continuing nuclear responsibility is dominant in both cases and any other activities at the locations evolved from the overall technical base at each laboratory.

There were some general questions on the effect of spin-off on the support for our programs, the overall budget trends in the AEC compared to NASA and other agencies, and the relationship between our national laboratories and other government-supported laboratories. These questions were answered in broad terms with emphasis on the Commission's record of achievements that is available in documents that could be supplied to the visitors. Special questions were also asked on the possibility of continuing close cooperation with Europe and my views on the best reactor concept that Germany should pursue. Both of these questions were again parried by indicating general support for a broad exchange of information and suggesting exploration of a number of reactor types that continue to offer promise.

Fritsch and I flew to Seattle on Northwest Airlines Flight No. 91, leaving Dulles about two hours late, at 8:30 p.m., due to traffic delay in Philadelphia, and arriving in Seattle at 10:30 p.m. We were met by Charles Seaborg. I made arrangements with Charles to meet his father (my uncle) at Charles' house tomorrow morning. Fritsch and I then took a taxi to the Benjamin Franklin Hotel and checked in.

#### Wednesday, October 16, 1968- Seattle

Arnie Fritsch and I had breakfast in the Benjamin Franklin Hotel coffee shop. I then called Mrs. C. M. Landen to arrange to come by her home later in the morning.

Harry Spellman (Pacific Science Center) drove Fritsch and me to the home of Charles Seaborg (15815 5th Place South in Burien). We drove by the 177 Street, S.W., site where Charles is building his new home. At Charles' home I was greeted by Lorraine and my uncle, Henry Seaborg. Due to his stroke in June, he

doesn't communicate very well. We looked at a number of old letters and papers, including the marriage certificate of John E. Sjöberg and Charlotte Johnson, dated August 3, 1872, with L. L. Frisk as pastor and John F. Gylling and John Dahlstrom as witnesses and pictures. Charles will either photostat these letters and papers or send them to me to do it, so I may have copies. Also, he will send me some of the unidentified pictures which I may ask Edith Ericson to help identify.

Spellman then drove us to Magnolia Bluff where I visited with Mrs. C. M. (Alice Farrell) Landen (4423 30th Avenue West). Her brother, Earle Melvin Farrell, was there, too. He lives in Spokane and has been visiting his daughter, Mrs. Marvin (Shirley) Nelson, in Portland. Mrs. Landen's daughter, Mrs. R. D. Randrupp (who lives next door), also dropped in. They showed me the bedroom which my great-grandmother, Marie Christina Farrell, occupied from 1902 to 1906. My great-grandfather, John Farrell, never lived in this house. We looked through many family pictures; Mrs. Landen will give me some of these, and she and Mrs. Randrupp will have copies made of others for me. Mrs. Landen and Earle will try to recall the names and whereabouts of other relatives of the Farrell family and send the information to me--that is, the descendants of Eric's brothers and sisters, Marie Johnson, Sophie Nelson and August Farrell. August Farrell was buried in Palisades, California, in a cemetery overlooking the water. He had children--Lawrence and Guy (both dead), Edward and two girls. Mrs. Nelson had a son Gus (who had a daughter Thelma), one of six children.

At noon we then went to the Pacific Science Center, where we attended a luncheon meeting of the Board of Trustees of the Pacific Science Center Foundation in the mezzanine level laboratory-classroom. I sat at the head of the table with Dixie Lee Ray, Harold Shefelman (new President of the Foundation and Chairman of the Board of Trustees of the University of Washington), Thomas Carlile (new Chairman of the Board of Trustees and Master of Ceremonies today), Robert D. Arnett (Treasurer of the Foundation), and Joseph McCarthy (Secretary of the Foundation). I was among those re-elected to a three-year term (until 1971) on the Board of Trustees. At the end of the business meeting I said a few words about my connection with the Center since 1959, our family visit to the Century 21 Exposition in 1962, and my membership on the Board since 1962.

I then went to a press conference. At the beginning of the press conference McCarthy presented me with a scroll (mounted under glass in a frame) of commendation on behalf of the Governor's Nuclear Energy Committee, and Don Kotch presented me with a similar scroll from the Washington State Legislature's Joint Committee on Atomic Energy.

Among those present at the press conference were Hill Williams and Ron DeRosa (Seattle Times), Ron Forsell (KORO-TV), Al Wallace (KING-TV), Elden Barrett (UPI), Bill McSpadden (KOMO-TV), Les Cole (KOMO Radio), James Lewis and Dave Potts (Seattle Post-Intelligencer), Bill O'Mara (KFKF, Belleone), Parris Emery (UPI TV News), and Dick Bingham (KIRU Radio). Questions were asked about the NPT, Plowshare, earthquakes from Nevada testing, medical uses of isotopes, californium-252, public understanding of science, my reaction to the Arches of Science Award and what I would do with the money, the ultimate nuclear weapon, and the future of nuclear power in the U.S. and the State of Washington. Dixie Lee Ray and Dael Wolfle sat with me at the press conference.

I rode back with Fritsch to the Benjamin Franklin Hotel. Dael Wolfle accompanied us on his way to the Olympic Hotel. Fritsch and I took a walk down First Street to Yesler Way, Pioneer Square, Smith Tower, and back on Second Street to the Benjamin Franklin Hotel.

ARCHES OF SCIENCE AWARD BANQUET, September 16, 1968

Dr. Dael Wolfe gave the gold medal and the \$25,000 check to Seaborg





At 6:30 p.m. Fritsch and I went to the Eames Theater in the Pacific Science Center for the Arches of Science Award dinner, which was preceded by a reception. My relatives--Mrs. C. M. Landen, Earle Melvin Farrell, Mrs. Joseph C. Brown (Edna Brooks' daughter), Mr. and Mrs. R. D. Randrupp, and Charles Seaborg--were present and sat together at a table. Pictures were taken of me with my relatives before the dinner.



At the Award Ceremony for the Arches of Science Award, October 16, 1968  
L to R: Charles H. Seaborg, Mrs. Alice Landen, Seaborg, Mrs. Charlotte Brown, Earle M. Farrell, and Mrs. and Mrs. R. D. Randrupp

Fred and Edrey Albaugh, Mr. and Mrs. Don Williams, Bob and Sue Vandenbosch, James H. Jensen (President of Oregon State University), and Charles Harrington were also present. Dr. Carlile, Mr. Shefelman and Dr. Ray spoke; Governor Dan Evans and Joe Gandy sent me telegrams. Dael Wolfle made the presentation of the Arches of Science Award--a gold medal and a check for \$25,000--and I responded with my address "On Public Understanding of Science: An Optimistic Opinion."

After the presentation ceremony I talked to numerous people and then Fritsch and I rode with Spellman back to the Benjamin Franklin Hotel.

Thursday, October 17, 1968- Seattle- Dayton

Fritsch and I had breakfast in the Benjamin Franklin Hotel coffee shop. Spellmen then drove us to the Pacific Science Center where in the Science Theater I spoke on the transuranium elements to science students and teachers from colleges in the greater Seattle area. My talk, "The Recent Research on the Transuranium Elements," illustrated by slides, was followed by questions. I was introduced by Dixie Lee Ray.

Following my talk we met Correa Miller, who is in the U.S. looking for permanent employment as he has decided to live here. Mrs. Miller is with him. He was deposed as Chairman of the Nuclear Energy Commission of Peru by the recent

revolution in Peru.

I met Babb (head of nuclear energy at the University of Washington).

Spellman then drove us to the Seattle-Tacoma airport where we caught United Airlines Flight No. 144 to Chicago, leaving about noon and arriving in Chicago (O'Hare Airport) at 6:50 p.m., after circling the airport for nearly two hours due to air traffic delay. Since I missed my connection to Dayton (United Flight No. 408) I found my luggage (with some trouble) and then obtained space on TWA Flight No. 500, leaving from Midway Airport. (The other flights to Dayton from O'Hare were very much delayed.) I rode to Midway with Edward M. Levy, a registered professional engineer, who was driving his friend Ted Sobel to Midway in order to catch the same plane to Dayton. The flight left at 9:45 p.m. and arrived in Dayton at 11 p.m. I took a taxi to and checked into the Imperial Hotel South (Room 234).

Friday, October 18, 1968- Dayton- D.C.

I had breakfast with Julie Rubin in the Imperial Hotel South restaurant. Then Rubin, Howard K. Nason (President, Monsanto Research Corporation), Representative Melvin Price, Ernie Tremmel, and I rode out to Mound Laboratory. We visited the Miamisburg Mound on the way--a ceremonial (not burial) Indian site of approximately 800 A.D.

When we arrived at the Mound Laboratory we were greeted by its director Ralph Neubert, Sam Donnelly (Manager of AEC's Albuquerque Operations Office), and other members of Mound Laboratory. This group toured the Laboratory. First we visited an area in which SNAP 19 and SNAP 27 capsules were on display. Richard Grove showed us this area. One capsule contained about 1 kg of plutonium-238 generating 1,200 thermal watts. We saw two SNAP 19 capsules recovered from the aborted Nimbus-B spacecraft.

Gary Numbers and John Bradley then showed us the work on firing set for the 68 (POSEIDON) and related detonator work. I also met Frank D. Lonadier (Monsanto Research Corporation). Kenneth Phipps showed us components for POODLE and DART. John Ricks and George Mafouz showed us the shop area.

We then went to a conference room where movies and pictures were taken in front of a thermal diffusion display including Price, Nason, Neubert, Donnelly, Rubin and me.

We then returned to the Imperial House South. At noon we attended a reception and then the anniversary luncheon at which I spoke. Nason, Neubert, and Charles and Marnie Thomas (he was one of the honored guests) sat at the head table. Neubert opened the program, then Nason spoke and introduced me. I spoke on "Mound Builders of the Nuclear Age" and then read and presented a letter of commendation to Charles Thomas. Thomas responded with a few remarks of appreciation and reminiscences. Among those present were Ethan A. Walker (who has been with AEC's Dayton Area Office since 1946), Howard Kilburn (Deputy Manager of AEC's Savannah River Operations Office), W. B. Creamer (Manager of AEC's Dayton Area Office), Sam Donnelly, W. C. Fernelius, Illinois Representative Melvin Price, Representative Charles W. Whalen (his district includes Dayton), Representative Donald E. Lukens (his district includes Miamisburg), Ed Bauser (JCAE), Ernie Tremmel, Julie Rubin, Monte C. Throdahl (Monsanto Vice President, Technology), and K. Warren Easley (Monsanto Research Corporation).

Thomas and I then conducted a short ten-minute press conference, mainly picture-taking. Present were representatives of the Cincinnati Enquirer, Dayton Daily News, Dayton Journal Herald, Miamisburg News, Radio Station WAVI (Dayton), TV Channel 2 (WLW-TV), TV Channel 7 (WHIO-Dayton), Monsanto Newsreel, and Leisure Magazine (Dayton Sunday Supplement). The major questions were along the lines of the possible future for Mound in the isotopes field.

Rubin, Tremmel, and I then rode to the airport and, joined by Bauser, caught TWA Flight No. 800 to Washington, leaving Dayton about 3:50 p.m. and arriving in Washington at 5 p.m.

#### Saturday, October 19, 1968- D.C.

I worked at the D.C. office in the morning and had lunch in the office (it was a rainy day) with Arnie Fritsch and his daughter, Kerry.

Eric, Suki and I took a long hike to Cross Trail #1 in Maryland, and back in Rock Creek Park.

#### Sunday, October 20, 1968- D.C.

I worked on my speech, "The Government-University Partnership in Graduate Education," to be given at the Eighth Annual Meeting of the Council of Graduate Schools in the United States in San Francisco, California, on December 4, 1968.

We watched the Washington Redskins-St. Louis Cards football game on TV. The Redskins lost.

Eric and I played nine holes of golf at the Chevy Chase Club.

#### Monday, October 21, 1968- D.C.- New York

At 10:10 a.m. Arnie Fritsch, Julie Rubin and I met with Gerald Johnson (Gulf General Atomic). Johnson explained the purpose of his visit was to inquire about the Commission's position on possible consideration by Gulf for a Plowshare experiment off the coast of Africa. The intent is to use about a 50-100 kt device in a salt bed over some offshore oil rigs off the coast of Nigeria to provide a storage area that appears more economical than conventional onshore tank storage. Some rough estimates indicate a cost of \$1 per barrel storage through the Plowshare project versus \$3 per barrel storage by conventional means. I stated that there is no precedent to go by and the principal problem at this time would be the political implications of using nuclear devices in Africa. This was explained as the effect on Africa's current position as a possible nuclear-free zone and also the influence on obtaining approval of the NPT. In any event, I indicated that a project such as this would have to be part of some IAEA cooperative effort and obviously would have to be with the consent of the Nigerian government.

Johnson indicated that Gulf is prepared to finance the major part of the operation but obviously would have to look for AEC to provide the device and would anticipate some additional support for any R&D interests by the Commission. The matter was left that Johnson would do some more thinking about the project and if the Gulf management decides to proceed, they would recontact the Commission for possible discussions with the State Department, the Nigerian government and other interested parties.



In some general conversation at the conclusion of the meeting Johnson indicated that Gulf would not have any interest in the oil shale projects due to their belief that the efficiency of retorting limits its economic potential. The Gasbuggy operations also appear to Gulf to be of marginal value unless the cost of the explosive could be considerably reduced and the size casing required reduced by several inches in diameter. A cost estimate on the explosives (of a few kt) of less than \$100,000 was suggested as what is needed.

At 11 a.m. I presided over Information Meeting 839 (notes attached).

At 12:30 p.m. I hosted a luncheon in the Commission dining room for Chen-hsing Yen (Chairman, Atomic Energy Council and Minister of Education, Republic of China). Victor Chen-hwa Cheng (Director of the Institute of Nuclear Science, National Tsinghua University, Taipei), whom I met in Taiwan in 1965, Yueh-hao Lee (Professor of Nuclear Science), Kuan-han Sun (Manager of Central Laboratories, Westinghouse Electric Corporation), Ambassador Chow, and Dr. Chang (Cultural Minister) attended. The Commissioners and AEC staff also attended. I spoke briefly on U.S.-China cooperation, my visit to Taiwan, etc., and Yen responded. Yen gave me a reproduction of a Ching dynasty tray with dragons engraved on it.

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

At 2:10 p.m. I presided over Executive Session (Adjudicatory) 179 (action summary attached).

At 2:20 p.m. I presided over Information Meeting 840 (notes attached).

At 3:15 p.m. I presided over Commission Meeting 2350 (action summary attached).

Representative Melvin Price phoned me to ask if we could advance the groundbreaking for the 200 BeV Accelerator to November 3rd in order to help Governor Shapiro's election campaign. I indicated this couldn't be done and he accepted this very graciously.

I wrote to Pete to tell him about my visit to Seattle to receive the Arches of Science Award and to describe our relatives who live in Seattle, Spokane, Tacoma and Portland (copy of letter attached).

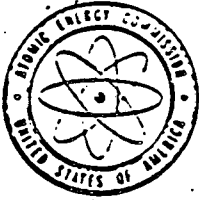
Helen and I attended a reception for Chairman Philip Baxter, Commissioner K. F. Alder and D. R. Griffiths of the Australian AEC, given by Mr. and Mrs. Michael Farrell at the International Club at 6:30 p.m.

Bloom and I flew to New York City on the 8 p.m. Eastern Airlines shuttle and checked into the Roosevelt Hotel.

Tuesday, October 22, 1968- New York- D.C.

I had breakfast in the Roosevelt Hotel coffee shop with Paul Rosenbaum. He tried to get me to agree to go to Hartford to meet with John Bailey and others concerning the possibility of my running for senator in Connecticut, but I declined.

I gave my talk, "Californium-252: Radioisotope with a Future," at the Californium-252 Symposium in the Roosevelt Hotel, speaking informally from



UNITED STATES  
**ATOMIC ENERGY COMMISSION**  
 WASHINGTON, D.C. 20545  
**GLENN T. SEABORG**  
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COPY NO. - 2  
 October 21, 1968

INFORMATION MEETING 839

11:05 a.m., Monday, October 21, 1968, Chairman's Conference Room, D. C.

1. Commission's Letter to Mr. John Conway, JCAE

Approved and signed. A luncheon is to be scheduled.

*Johns - Oct 24  
 12:30 PM  
 D.C. Dining*

2. Commissioners' Meeting with Dr. Sigvard Eklund, Director General, IAEA, 11:00 a.m., November 12, 1968, Chairman's Conference Room

Scheduled. (AGMIA-SECY)

3. Commissioner Johnson's Meeting with Mr. Philip Sporn, 8:30 a.m., October 28, 1968, D. C. Office

Scheduled. (SECY)

4. Draft Memorandum to Department of State re US-Israeli Desalination Project

Briefly discussed by Commissioner Ramey and to be circulated. (Ryan-SEC)

5. Commissioner Costagliola's Report on his October 16, 17, and 18 Trip with the MLC to Sandia, LASL, and LRL

6. October 17 Nucleonics Week Article re the MSRE

CLASSIFICATION CANCELLED  
 WITH DELETIONS  
 BY AUTHORITY OF DOE/OC

*Roger* 7/10/86  
 REVIEWED BY \_\_\_\_\_ DATE \_\_\_\_\_  
*R. F. [Signature]* 7/11/86

7. Joint Report on Construction Schedules of Licensed Nuclear Power Reactors  
Requested. (RDT-ADRA)
8. Staff Appraisal of Licensed Nuclear Power Reactor Construction Schedules and US Electrical-Power Requirements  
Requested. (RDT-ADRA)
9. Executive Personnel Appointment  
Approved. (PER)
10. General Manager's Report on Discussions of NASA's Fiscal Year 1970 Budget Estimates
11. Chairman's October 15 Letter to Dr. George E. Mueller, Associate Administrator, Office of Manned Space Flights, NASA, re SNAP 27  
Noted.
12. TVA Power Contracts  
Mr. Hollingsworth reported on his discussions with Mr. Schuldt, BOB, and the Commissioners requested additional information and discussion on Friday, October 25. (DGM-SECY)
13. Personnel Detail to the National Science Foundation  
Approved. (PER)
14. AEC Representation for the AEC Exhibit in Argentina  
Approved. (AGMA)
15. Uranium Miners' Problem  
The staff recommendation is approved. (AGMO)
16. October 7 Letter from Mr. Shapiro, President, NUMEC, re Comprehensive Educational Programs on Radioactivity  
Commissioner Tape requested staff recommendations. (OS-ADRA)

17. Pending Contractual Matters Report No. 279

Noted. (PAR)

18. Mr. Shaw's October 11 Memorandum re Release of Report: An Evaluation of the High Temperature Gas-Cooled Reactor, WASH 1085

Noted. (RDT)

19. AEC 1282/12 - [REDACTED] Event; and, NTS Events (See General Giller's October 17 Memorandum)

Noted. (AGMMA)

20. Elk River Fuel Shipment

Staff may proceed. (AGMLA)

W. B. McCool  
Secretary

12:15 p.m.

PRESENT:

COMMISSIONERS:

Chairman Seaborg  
 Commissioner Ramey  
 Commissioner Tape  
 Commissioner Johnson  
 Commissioner Costagliola

STAFF:

Mr. Hollingsworth  
 Mr. Bloch  
 Mr. Hennessey  
 Mr. Schoenhaut  
 Mr. Rosen  
 Mr. McCool  
 Mr. Price\*  
 Mr. Yore\*  
 Gen. Giller\*  
 Mr. Erlewine\*  
 Mr. Faulkner\*  
 Mr. Kratzer\*

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Commissioners  
 General Manager  
 General Counsel  
 Secretary

\*Attendance by Topic (s)

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

October 21, 1968

OFFICE OF THE CHAIRMAN

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NOV 86

The President  
The White House

Dear Mr. President:

I have the pleasure of submitting the biweekly report on significant developments in the atomic energy program:

1. An International Conference on the Constructive Uses of Atomic Energy will be held November 10-14 at the Shoreham Hotel in Washington, D.C., in which the other Commissioners and I will be participating. This is basically the annual Atomic Industrial Forum Conference held concurrently with the winter meeting of the American Nuclear Society and Atomfair 1968, but it has been broadened into an international meeting this year with the program including presentations by numerous foreign participants.
2. A briefing of foreign executives on nuclear fuel enrichment services will be held in Washington on November 7-8 immediately preceding the International Conference. The briefing will be followed by tours to Oak Ridge and other selected facilities.
3. The fourth annual meeting of the Commission and top officials of Atomic Energy of Canada Limited will take place in Washington on November 14. Progress and plans of the two national programs will be reviewed with the Canadian officials, headed by AECL president J. L. Gray. On November 15 the Canadians will visit Oak Ridge National Laboratory.
4. AEC and the Puerto Rico Water Resources Authority have reached agreement on the principal features of a cooperative feasibility study of nuclear energy centers for the coastal regions of Puerto Rico. Study guidelines will be set forth in a Memorandum of Understanding to be signed in San Juan on October 31.
5. The two SNAP-19 nuclear fuel capsules from the aborted Nimbus-B spacecraft were retrieved intact from more than 300 feet of water off the Southern California coast on October 9.
6. The Army's barge-mounted nuclear plant MH-1A began producing electric power in the Panama Canal Zone on October 5. The barge Sturgis is moored near the Gatun

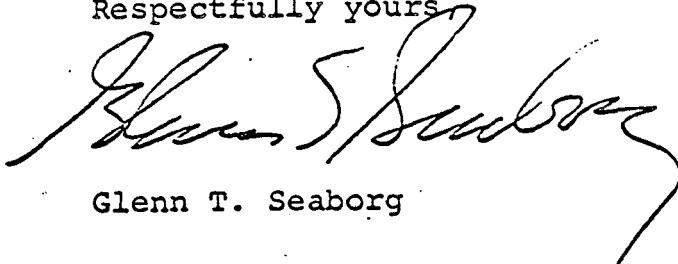
Hydroelectric Station where the reactor is providing a temporary solution to the Canal's electric power shortage. The operation of the nuclear plant at near full power of 10,000 KWE has not been disrupted by the recent revolutionary activities in Panama.

7. Repairs were completed on the AEC Science Demonstration Center in Cordoba, Argentina and it was opened to the public on October 20. This was two weeks after the planned opening, which was delayed when the roof of the center was damaged by an exploding fire bomb. The exhibit will be operated for about four weeks.

The other AEC Science Demonstration Center completed a very successful month-long run in Seoul, Korea, on October 8. Total attendance was about 150,000, which is considerably higher than the number normally attending these science exhibit programs in a four-week period.

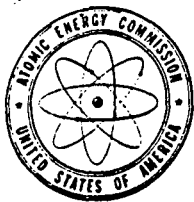
8. AEC is shortly placing on sale for the first time a limited amount of californium-252, a radioisotope in such limited supply that the largest shipment ever made was a one milligram quantity. The price will be \$100 for one-tenth of a microgram. It can be used in very minute quantities as a neutron source for very many peaceful applications, including medical uses and neutron activation analysis. We are loaning a quantity of californium-252 to the M. D. Anderson Hospital in Houston for use in its cancer research program.

Respectfully yours,



Glenn T. Seaborg

cc: Bromley Smith



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

October 21, 1968

File

ACTION SUMMARY OF EXECUTIVE SESSION (ADJUDICATORY) 179, MONDAY, OCTOBER 21, 1968,  
2:10 P.M., ROOM 1115, D. C. OFFICE

SECY:WLW

1. Bulloch County Board of Education and the State Department of Education of Georgia, Docket No. CR-534

The Commission adopted the Department of Health, Education, and Welfare's decision as the final AEC decision. (SECY/Solicitor)

2. Miller County Board of Education and State Board of Education, Georgia, Docket Nos. CR-310 and CR-576

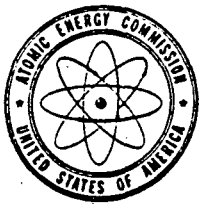
The Commission agreed to take no action at this time.

Original signed  
W. B. McCool

W. B. McCool  
Secretary

cc:

Chairman Seaborg  
Commissioner Ramey  
Commissioner Tape  
Commissioner Johnson  
Commissioner Costagliola  
General Counsel  
Solicitor



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COPY NO: 2  
October 21, 1968

INFORMATION MEETING 840

2:20 p.m., Monday, October 21, 1968, Room 1115, D. C. Office

1. AEC 588/64 - Plant Design Services for FFTF Subcontract

Staff may proceed. (DC)

2. AEC 1229/3 - Selection of System Contractor to Develop Radioisotopic Thermoelectric Generator for Navy Advanced Navigational Satellite

Approved with Commissioner Johnson abstaining. Commissioner Tape requested review of selection criteria. (DC)

3. AEC 783/102 - Comments on H. R. 19202, A Bill "To Establish a Department of Education"

Deferred. (GC)

4. 200 BEV Groundbreaking Ceremony

The Chairman will call Representative Price. (Rubin)

5. AEC 901/392 - Proposed Soviet Participation in Conference

Approved. (AGMIA)

6. AEC 23/78 - Proposed Export of Porous Nickel in Technology to West Germany

Approved. (AGMIA)

7. AEC 1083/127 - Proposed US Offer to Host FAO/IAEA Symposium on the Use of Induced Mutations in Plant Breeding

Approved. (AGMIA)



8. AEC 974/13 - Heavy Water for Siemens/Argentine Nuclear Power Project

Approved. (AGMIA)

9. Commissioners' Luncheon for Mr. John Conway, JCAE, 12:30 p.m.,  
October 24, 1968, D. C. Office Dining Room

Scheduled. (SECY)

10. Schedule Change for Friday, October 25, 1968, (D. C. Office)

(SECY)

W. B. McCool  
Secretary

PRESENT:

COMMISSIONERS:

Chairman Seaborg  
Commissioner Ramey  
Commissioner Tape\*  
Commissioner Johnson  
Commissioner Costagliola

STAFF:

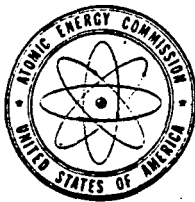
Mr. Hollingsworth  
Mr. Bloch  
Mr. Hennessey  
Mr. Schoenhaut  
Mr. Rubin  
Mr. McCool  
Mr. Klein\*\*  
Mr. Kratzer\*\*  
Mr. Erlewine\*\*  
Mr. Smith\*\*

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General Counsel  
Secretary

\*Partial Attendance

\*\* Attendance by Topic (s)



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

October 21, 1968

Approved \_\_\_\_\_

REH

R. E. Hollingsworth, General Manager

Date \_\_\_\_\_

ACTION SUMMARY OF MEETING 2350, MONDAY, OCTOBER 21, 1968, 3:15 P.M., ROOM 1115,  
D. C. OFFICE

Commission Business

1. Minutes of Regulatory Meetings 267, 268 and 269

Approved. (SECY)

2. AEC-R 30/88 - Proposed Amendments to 10 CFR Parts 30 and 32: Class Exemption of Byproduct Material in Gas and Aerosol Detectors

Approved. (RPS)

3. AEC 619/5 - Nevada Traffic Regulation Enforcement

Approved, with changes, subject to Commissioner Ramey's comments. (GC)

4. AEC 785/102 - Amendment to 10 CFR Part 140: Criteria for Determination of an Extraordinary Nuclear Occurrence; Waivers of Defenses

Approved. (GC)

5. AEC 1283/27 - Revised Weapons Program Facility Requirements

Discussed. To be rescheduled for the Information Meeting, Wednesday, October 23. (AGMA/SECY)

W. B. McCool  
Secretary

cc:  
Chairman Seaborg  
Commissioner Ramey  
Commissioner Tape  
Commissioner Johnson  
Commissioner Costagliola

October 21, 1968

Dear Pete:

I am enclosing a check for \$1,000.00 for your checking account so that you can keep it above the minimum.

I had a very interesting trip to Seattle in connection with the Arches of Science Award and met a number of our relatives. Although it is not likely that you will get up to the Seattle area, you might be interested in these relatives and I am enclosing a list of their addresses.

The parents of Farfar's mother spent the last decade of their lives in Seattle at about the turn of the century. They were John and Marie Christina Farrell. Their granddaughter, Mrs. C. M. (Alice) Landen, still lives in the old family home and her daughter, Mrs. R. D. Randrupp, and her husband live next door. Her brother, Earl Melvin Farrell, lives in Spokane, and he has a daughter, Mrs. Marvin Nelson, who lives with her husband in Portland.

Great-grandfather John Seaborg had a brother, Peter Seaborg, whose great-granddaughter, Mrs. Joseph (Charlotte) Brown, and her husband live in Tacoma. They have four children: Susan, 21; Sally, 19 (both students at Duke); Clifford, 13; and Barbara, 11. They are your fourth cousins.

Charles Seaborg and his family now live in Seattle. His father, my Uncle Henry Seaborg, is also living there in a nursing home. Charles' son Chuck is a sophomore at the University of California, Berkeley, living in an apartment. I have asked Charles to send us Chuck's address and phone number so that you could look him up if you want to.

We were very pleased to hear from you and hope that you will keep writing to us.

With love,

*P. Seaborg*

GTS:HG  
Seaborg, Peter

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notes. The symposium, sponsored by the New York Metropolitan Section of the American Nuclear Society, was chaired by Herb Pennington (AEC New York Operations Office) and it was Pennington who introduced me. Paul Fields (ANL) followed me. Gus Prince (BNL), Russ Baybarz (ORNL), John Balanga (LASL, replacing George Cowan), John Bigelow (ORNL), Jim Smith (Savannah River), and Frank Baranowski (AEC) also spoke.

The availability of californium-252 by purchase from the AEC at \$100 per one-tenth microgram was announced. I pointed out that this corresponds to a price of \$450 billion per pound. I predicted that by the early 1970's the production rate should be about one gram per year and the price should drop to \$15-\$25 per microgram.

At lunch John Huizenga spoke on heavy element production in the stars.

I met and spoke with former AEC Chairman David Lilienthal in the hotel elevator.

Justin Bloom and I returned to Washington on the 3 p.m. Eastern Airlines shuttle. I spent the rest of the afternoon in the D.C. office.

#### Wednesday, October 23, 1968- D.C.

At 9 a.m. I met with Carson Mark (LASL) to discuss the possibility of making crude nuclear weapons from plutonium utilizing the minimum of technical capacity.

At 10:50 a.m. I presided over Information Meeting 841 (notes attached).

At 12:30 p.m. I hosted a luncheon for Sir Philip Baxter (Chairman of the Australian AEC) in the Terrace Room of the Washington Hilton Hotel. Present were Keith Alder, D. R. Griffiths, Ambassador Keith Waller, Atomic Energy Attaché Michael S. Farrell; John Conway, George Murphy and Bill England (JCAE); Pete Scoville (ACDA), Donovan Zook (State); Commissioners Ramey, Tape and Costagliola, and AEC staff.

In my after-luncheon remarks I spoke about the visits of four AEC teams to Australia since May, my visit with Jerry Tape to Australia in January 1967, Baxter's and my backgrounds as university administrators, and Australia-U.S. cooperation in atomic energy. Baxter responded describing his many contacts with the U.S. beginning with his work at Oak Ridge on the electromagnetic uranium isotope process during the war.

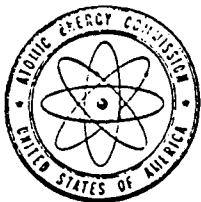
Harold Fisher (Standard Oil, New York) called to explore any interest I might have in accepting a vice presidency. He will come to see me on Friday even though I didn't encourage him.

Dianne, her friend Amy Ballou, Suki and I took a hike in Rock Creek Park to the Maryland line and back on the White Horse Trail, starting at Nebraska and Oregon Avenues.

#### Thursday, October 24, 1968- D.C.

At 10:30 a.m. I met with Ted Sherburne and Wallace Brode to discuss future plans for Science Service, particularly fundraising.

At 12:15 p.m. I received a telephone call from James W. Cobble (Purdue University). He said he has been asked to put together a symposium to be held



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WASHINGTON, D.C. 20545

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COPY NO. --- 2  
October 23, 1968

INFORMATION MEETING 841

10:50 a.m., Wednesday, October 23, 1968, Chairman's Conference Room, D. C.

1. Commissioners' Luncheon for Mr. John Conway, JCAE, 12:30 p.m.,  
October 24, 1968, Commissioners' Dining Room, D. C. Office

Confirmed. (SECY)

2. 1968 Fermi Award Ceremony, December 2, 1968

To be scheduled at the Department of State if possible. (SECY)

3. October 19 Letter from the President re Emergency Preparedness  
Plans Meeting October 24, 1968

Staff representation is approved. The Chairman said he would like to visit the facility at a convenient time. (AGMO)

4. October 14, 1968, Letter from Dr. John Foster, Director, Defense  
Research and Engineering, re Sentinel

Staff review is requested. (AGMMA)

5. AEC 1283/27 - Revised Weapons Program Facility Requirements

Approved. (AGMMA)

6. Press Query re LRL Special Study

An alternate response is requested. (PI)

7. AEC 1192/66 - RFP on Radiation Treatment of Sewage and Wastewater  
Approved. (ID-DC)
8. AEC 610/133 - Gas Centrifuge Development Program  
Approved. (P)
9. AEC 588/65 - Expressions of Interest in LMFBR Plant Design R&D Work  
Approved. (DC-RDT)
10. AEC 319/21 - Proposal for Joint U. S. -Japan Study of Future of Atomic Bomb Casualty Commission  
Approved. (BM)
11. AEC 901/393 - Proposed Participation by USSR National at Two Conferences at ANL  
Approved. (AGMIA)
12. AEC 901/389 - Procedures for Alien Visits, Participation and Conference Attendance  
Additions and rescheduling are requested. (AGMIA-AGMA-SECY)
13. AEC 979/71 - Visit of French Technical Team  
Noted. (AGMIA)
14. AEC 460/105 - Enrichment Services Briefing for Foreign Executives  
Commissioner Ramey requested early consideration. (AGMIA)
15. AEC 588/66 - Commission Meeting with North American Rockwell and General Public Utilities, October 31, 1968  
Noted. Commissioner Ramey requested information on staff plans for issuance of a request for proposals. (RDT-SECY)

16. Mr. Erlewine's Oral Report on Interdepartmental Discussions re the Uranium Miners' Problem

\*\*\*\*\*

17. Mr. Wells' October 18 Memorandum re Board Members for Columbia University Hearings

Approved. (Chm., AS&LBP)

W. B. McCool  
Secretary

12:00 N

PRESENT:

COMMISSIONERS:

Chairman Seaborg  
Commissioner Ramey  
Commissioner Tape  
Commissioner Costagliola

STAFF:

Mr. Bloch  
Mr. Brown  
Mr. Hennessey.  
Mr. Schoenhaut  
Mr. O'Donnell  
Mr. King  
Mr. McCool  
Mr. Erlewine\*  
Gen. Giller\*  
Mr. Harris\*  
Mr. Fowler\*  
Dr. English\*  
Mr. DeRenzis\*  
Mr. Quinn\*  
Mr. Smith\*  
Dr. Reich\*  
Mr. Kratzer\*  
Mr. Gaughran\*  
Mr. Price\*

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General Counsel  
Secretary

\*Attendance by Topic (s)

during the 1969 ACS spring meeting in Minneapolis to honor George Boyd who is receiving the ACS Award in Nuclear Chemistry; he is planning three half-days in areas Boyd was cited for. He asked if I would be interested in participating in one or more of three ways: 1) giving an address having to do with the role that ion exchange has played up to now in the discovery of the actinides, 2) guiding a half-day session, or 3) introducing George Boyd in a five or ten-minute address when he gives his own talk on hot atom chemistry. He said a date has not yet been decided on for this symposium.

I said I think I might be able to participate as described in #1 and #3 since I will be in Minneapolis on April 15th in connection with the Mendeleev Centennial Symposium, if he could plan it for a time that same day that wouldn't interfere with that commitment. I said introducing George would probably be the best role for me. We discussed several people for the ion exchange talk and I said I would give it if it did not involve preparing a manuscript. He said only an abstract would be necessary, but it should be at least a half-hour long. The title of my address will be "The Role of Ion Exchange in the Discovery of the Transuranium Elements."

At 12:30 p.m. I hosted a Commission luncheon in our dining room for John Conway, who is leaving the JCAE at the end of the month to go with Consolidated Edison. Present were Commissioners Ramey, Tape and Costagliola, Ed Bauser, George Murphy, Bill England, Julie Rubin, Jack Rosen, Ed Bloch, Harold Price, George Kavanagh, Ed Giller and Bob O'Neill. I spoke briefly, wishing Conway godspeed and good luck and he responded briefly.

At 1:50 p.m. I met with W. O. Milligan (Welch Foundation). We discussed speakers and discussion leaders for the Welch Foundation Conference on Transuranium Elements to be held next year. He said he couldn't get approval of the Board of Trustees for more than one or possibly, at most, two Soviet scientists. I said that Georgiy N. Flerov would be the first choice, V. M. Strutinskii, second choice, and Ivo Zvara, third choice. If Flerov can't come, then it would be Strutinskii; and if Strutinskii can't come, it would be Zvara. He will write letters in such a way that a deadline for acceptance is imposed. He will try to get two Soviets approved, but if he can't do this, P. A. Seeger (Los Alamos) would be a substitute for Strutinskii. We agreed that John Huizenga would be a substitute for Goldanskii; Joe Katz, a substitute for Zvara; and Aage Bohr of Denmark (with Iz Perlman of Berkeley, as an alternate), a substitute for Polykanov.

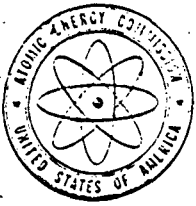
Friday, October 25, 1968- D.C.

At 10 a.m. I presided over Information Meeting 842 (notes attached). The Commissioners decided during the Information Meeting that we would admit press to view the Plowshare Schooner shot if we can obtain agreement from ACDA, State Department, etc. We also agreed to give foreign visitors a tour inside the fence of the Oak Ridge Gaseous Diffusion Plant at the time of the briefing on U.S. nuclear fuel policy on November 7th and 8th. It is finally becoming possible to make some small inroads with Jim Ramey toward reality in matters of so-called security and move slightly toward common sense.

At 12:25 p.m. I presided over Regulatory Information Meeting 316 (notes attached).

At 1 p.m. I had lunch in the dining room with John Totter, John Storer, and W. Burr (Division of Biology and Medicine), and Arnie Fritsch, Stan Schneider, and Justin Bloom to discuss preparation of an up-to-date speech on the use of radioisotopes and radiation in medicine.





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COPY NO. 2  
October 25, 1968

INFORMATION MEETING 842

10:00 a.m., Friday, October 25, 1968, Chairman's Conference Room, D. C.

1. Commissioner Costagliola's October 24 Memorandum re Briefing on ARPA Nuclear Technology Study

Noted.

2. Agenda for the Week of October 28, 1968

Approved. (SECY)

3. Schedules for Foreign Representatives at the AIF/ANS Conference, November 11, 1968

To be checked. (AGMIA-SECY)

4. NTS Events (See General Giller's October 24 Memorandum)

Noted. (AGMMA)

5. Commissioner Johnson's Oral Report on His Visit to Hanford and AiResearch

6. Proposed FRC Compromise -- Mr. Erlewine's October 25, 1968, Memorandum

Approved. The Joint Committee is to be informed. (AGMO-Congr.)

7. 200 BEV Groundbreaking Ceremony, December 1, 1968

Mr. Erlewine discussed briefly with the Commissioners attendance and participation planning.

8. AEC 1044/20 - Proposed Tour of Foreign Visitors to Oak Ridge Gaseous Diffusion Plant

A perimeter tour is approved with utility representatives and press representatives to accompany the foreign visitors. Additionally, the Commissioners requested:

- a. Scheduling an AIF/ANS tour at an appropriate time; and,
- b. staff recommendations on access policy.  
(AGM-AGMIA-S-C-PI)

9. AEC 1021/22 - US Assistance to Foreign Countries in Field of Naval Nuclear Propulsion Technology

Approved. (AGMIA)

10. AEC 811/208 - Project SCHOONER Public Information Plan

Appropriate IAEA and press representation is approved. The Commission is to be informed if problems develop in staff discussions with other agencies. (PNE-PI)

11. AEC 811/209 - Briefing of Frenchmen by NVOO on Plowshare

The briefing is to be rescheduled. (PNE-AGMIA)

12. AEC 374/191 - High Yield Testing

Noted. A briefing by members of the special panel is to be scheduled for 4:00 p.m., Wednesday, November 6. (AGMMA-SECY)

13. Oral Report by Mr. Tesche on the October 22 and 23 Meeting, Nevada Operations Office

14. Pending Contractual Matters Report No. 280

Noted. (PAR)

15. Commissioner Ramey's Discussion with Mr. Lawson B. Knott, Jr.,  
Director, GSA, re AEC Space

Staff is to follow. (AGMA)

16. U.K. Aide Memoire on Gas Centrifuge

To be circulated. (AGM-SECY)

W. B. McCool  
Secretary

12:25 p.m.

PRESENT:

COMMISSIONERS:

Chairman Seaborg  
Commissioner Ramey  
Commissioner Tape  
Commissioner Johnson  
Commissioner Costagliola

STAFF:

Mr. Bloch  
Mr. Brown  
Mr. Hennessey  
Mr. Schoenhaut  
Mr. Rubin  
Mr. Kull  
Mr. Bloom  
Mr. McCool  
Mr. Erlewine\*  
Mr. Faulkner\*  
Dr. Biles\*  
Mr. Kratzer\*  
Mr. Riley\*  
Mr. Marshall\*  
Mr. Harris\*  
Dr. English\*  
Mr. Kelly\*  
Mr. Labowitz\*  
Gen. Giller\*  
Mr. Tesche\*

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REGULATORY INFORMATION MEETING 316

12:25 p.m., Friday, October 25, 1968, Chairman's Conference Room, D. C.

1. Deferral of Commissioners' Meeting with the Advisory Committee on Reactor Safeguards

Mr. Price recommended and the Commissioners agreed the Southern Nuclear Engineering Report not be discussed with the ACRS pending some revisions which are now under consideration. (SECY)

2. Mr. Price's Oral Report on Oyster Creek Jersey Central Power and Light Company, Docket No. 50-219

3. Mr. Price's Oral Report on Turkey Point Florida Power and Light Company, Docket Nos. 50-250 and 251

4. Mr. Price's Oral Report on Indian Point III Consolidated Edison Company of New York, Docket No. 50-286

5. Status of Regulation Criteria for Limiting Exemptions Prior to Issuance of Construction Permits

To be checked. (ADRA)

6. Briefing on Emergency Core Cooling

To be scheduled for early December. (ADRA-RDT-SECY)

7. Mr. Price's October 24 Memorandum re Notice of Hearing for Columbia University

Approved for issuance after November 5, 1968. (SECY)

8. Commissioner Johnson's Comment on Forthcoming General Electric Report on Pressure Vessels

9. Commissioner Johnson's Comment on BPA Study of Requirements for Reserve Power

10. Commissioner Ramey's Oral Report on Discussions re Consumers-Dow Chemical Company Midland Plant, Units 1 and 2, Midland, Michigan
11. Mr. Price's Comments on Reopening of the Hearing on Zion Commonwealth Edison Company; Docket Nos. 50-295 and 304

W. B. McCool  
Secretary

12:55 p. m.

PRESENT:

COMMISSIONERS:

Chairman Seaborg  
Commissioner Ramey  
Commissioner Tape  
Commissioner Johnson  
Commissioner Costagliola

STAFF:

Mr. Price  
Mr. Hennessey  
Mr. Bloom  
Mr. Yore  
Mr. McCool

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At 2 p.m. I met with Harold W. Fisher (Vice President, Standard Oil of New Jersey) who said his company is interested in offering me a vice presidency with responsibility for research at a salary of \$100,000 and with other benefits. I told him that I appreciate their thinking of me, but I plan to return to the University of California when my assignment in Washington is completed.

At 2:45 p.m. I presided over Commission Meeting 2351 (action summary attached). The Commissioners discussed with staff future policy with respect to disposal of radioactive waste from reprocessing plants. We are tending to require that wastes be put in solid form and that they all be stored in underground sites on federal land.

Saturday, October 26, 1968- D.C.

I worked on AEC papers at home in the morning.

Helen, Eric, Steve, and I drove to the Cunningham State Park, where we had a picnic lunch with the Fritschs, Julie and Scottie Rubin, Lisa Marriott (Scottie's friend), and Doris Knief. Then we drove to Catoctin Mountain Park and hiked to Thurmont Vista, Wolf Rock, and from Chimney Rock to Camp Peneil.

Helen and I went to the Chris Hendersons in Flower Valley for dinner, where a farewell party was held for Arnie and Betsey Fritsch. Vic and Nadine Schmidt, the Cecil Kings, and Howard Brown were there. Cecil played a hilarious tape of Fritsch laughing (unknown to Fritsch when they taped him) in commenting on my announcement of the selection of Weston as the site for the 200 BeV Accelerator. Cecil, Howard and I spoke concerning our regard and hopes for Arnie, and he responded movingly.

Sunday, October 27, 1968- D.C.

Eric, Aaron Goerlich (Eric's friend), Steve and I went to the D.C. Stadium where we saw the New York Giants defeat the Washington Redskins, 13-10.

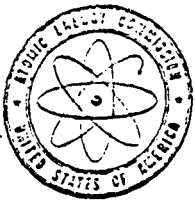
I worked on my speech for the Council of Graduate Schools, "The Government-University Partnership in Graduate Education," to be given in San Francisco on December 4th.

Monday, October 28, 1968- Germantown

At 11 a.m. I presided over Information Meeting 843 (notes attached). We discussed further at the Information Meeting the need for more realistic attitudes toward secrecy in the gaseous diffusion and gas centrifuge fields.

At 12:30 p.m. I had a luncheon meeting in the cafeteria with Russell Poor (Director, Division of Nuclear Education and Training). He had three items that he wants to discuss with me.

1) He is going to retire some time during 1969. He had brought Elliot Pierce in as his deputy with the expectation that he would immediately get a promotion to Grade 17 (not requiring an increase in salary) and would then go to Grade 18 when he became director of the division. He has now learned from DeRenzis that Vinciguerra intends to downgrade the position of director of the division to Grade 17. Poor believes that in view of the contacts that the



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ATOMIC ENERGY COMMISSION  
WASHINGTON, D.C. 20545

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October 28, 1968

Approved \_\_\_\_\_

EJB

Date \_\_\_\_\_

E. J. Bloch, Acting General Manager

ACTION SUMMARY OF MEETING 2351, FRIDAY, OCTOBER 25, 1968, 2:45 P.M., ROOM 1115,  
D. C. OFFICE

SECY:RBM

Commission Business

1. AEC 180/47 - Siting of Commercial Reprocessing Plants and Related Waste Management Facilities

Discussed.

The Commission:

- a. Approved submittal of AEC 180/47 to the NAS-NAE Advisory Committee on Radioactive Waste Management for the purpose of reviewing and commenting on the adequacy of present and projected technology necessary to carry out the policy recommended therein;
- b. Noted AEC 180/47 has been discussed with the Advisory Committee on Reactor Safeguards; and
- c. Requested early resubmittal of AEC 180/47 for consideration and action.

(RDT/SECY)

2. TVA Power Contracts

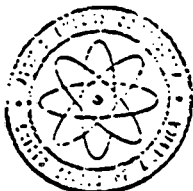
The Commission approved staff discussions with the BOB as proposed by you.

3. Fermi Award Ceremony

I will prepare a letter to the Secretary of State. (SECY)

F. T. Hobbs for  
W. B. McCool  
Secretary

cc:  
Commissioners



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WASHINGTON 910514

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INFORMATION MEETING 843

11:05 a.m., Monday, October 28, 1968, Room A-458, Germantown Headquarters

1. AEC S9/118 - Proposed Participation of Alien Students in Nuclear Training Activities at Sandia Corporation

Approved. (AGMLA)

2. AEC 226/427 - Proposed Speech by U. S. Delegation to UN

Noted. Commissioner Tape requested circulation of the summary report of the SIPRI meetings. (SAD)

3. Death of Mr. Robert Pid, General Atomics

^

4. Commissioner Tape's Oral Report on Telephone Call from Dr. Carl Walske, Assistant to the Secretary of Defense for Atomic Energy, re Environmental Radiation Standards for Uranium Miners

5. AEC 141/108 - Weekly Report on Classified Technical Briefings

Noted. (AGMMA)

6. AEC 1283/13 - [REDACTED] Event

Noted. (AGMMA)

7. AEC 1222/2 - Use of First-Class Air Accommodations by and Actual Subsistence Payments to AEC Headquarters Top Staff

Noted. (AGMA-OC)

CLASSIFICATION CANCELLED  
WITH DELETIONS  
BY AUTHORITY OF DOE/OC

REVIEWED BY [Signature] DATE 2/10/86  
[Signature] DATE 7/11/82



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8. Controller's Oral Report on Visit to Japan
9. Mr. Bloch's Report on October 25 Discussions with BoB re TVA Power
10. Mr. Brown's Oral Report on NATO Security
11. Commissioner Johnson's Meeting this Afternoon with Representatives of Bonneville Power Administration
12. Commissioner Johnson's Oral Report on His Morning Meeting with Mr. Philip Sporn
13. Status of Light Water Reactors - GAC Comments in their October 16 Letter
14. Staff Reports on Gas Centrifuge
15. Commissioner Costagliola's October 29 Visit to Oak Ridge
16. Commissioner Tape's Report on Schooner Briefing at Dr. Hornig's Office October 25, 1968
17. Cost of Separation of Tungsten Isotopes

Requested by the Chairman. (P)

W. B. McCool  
Secretary

12:05 p. m.

PRESENT:

COMMISSIONERS:

Chairman Seaborg  
Commissioner Tape  
Commissioner Johnson  
Commissioner Costagliola

STAFF:

Mr. Bloch  
Mr. Brown  
Mr. Ferguson  
Mr. Kull  
Mr. Rubin  
Mr. Ryan  
Mr. McCool  
Mr. Labowitz\*  
Mr. Winter\*  
Mr. Abbadessa\*  
Mr. Quinn\*

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Secretary

\*Attendance by Topic (s)

director must make with presidents and deans of colleges and universities that he needs the highest possible standing. (On the way back to my office I ran into Howard Brown and gave him the gist of this information.)

2) He said that many Latin Americans who would like to come to the Puerto Rico Nuclear Center to work cannot afford to do so because of the \$5 per diem which is available through their home states financed by AID. He wonders whether it would be possible for AID to make a grant to the University of Puerto Rico that could be used by Gomberg to supplement this per diem. For example, something like \$200 per month per person would be sufficient and would amount to a total of \$20,000 per year. He wondered whether I might call Secretary Dean Rusk concerning this.

3) A number of universities that have research reactors are running them at higher power and for two or three shifts instead of the original one per day. This has led to the situation where a number of them need to be refueled, but the cost of fuel which is furnished only by a very limited number of suppliers is higher than they can afford.

After lunch, at 2:10 p.m., I met with Michael May, who is worried about the future of funding for the Plowshare program and about the possible outcome of the Ad Hoc Committee's study of the safety aspects of high yield underground testing. He fears that some members of the Committee will attempt to broaden the scope of the inquiry.

At 2:30 p.m. I talked to and presented pins to the One Percent Club, i.e., those who contributed at least one percent of their salary to the Combined Federal Campaign. Eleven out of the 20 were present.

At 3 p.m. I recorded on tape an interview on the peaceful uses of atomic energy with Ed Roone of ANL for use on radios throughout the country as part of a series.

Tuesday, October 29, 1968- D.C.

At 10 a.m. I attended the Joint FCST-University Symposium on Education and Federal Laboratory-University Relationships at the Smithsonian Museum of History and Technology. S. D. Ripley, Donald Hornig, Frank Lehan, and Charles Kidd spoke.

At 12:30 p.m. Paul McDaniel and I had lunch with Paul Donovan (National Science Foundation) at the Roger Smith Hotel. We discussed, among other things, Donovan's proposal to Allan Bromley (Chairman of the Committee on Nuclear Science of the National Academy of Sciences) that a committee be created to make a comparative study to determine the best machine for accelerating heavy ions. McDaniel and I emphasized that the Friedlander Panel had already made such a study and had come to the conclusion that the Omnitron was the best machine, taking into consideration the fact that it would serve the purposes of high energy heavy-ion nuclear physics and biology and medicine as well as five to ten MeV per nucleon nuclear physics. Donovan felt that the separated magnet cyclotron with a Van de Graaff accelerator, such as could be built at the University of Indiana or Brookhaven, would be better than the Omnitron for the five to ten MeV per nucleon heavy-ion work.

McDaniel and I said we were afraid that another study would be used as an excuse by the BOB and the Congress for a delay in the Omnitron which could kill it.

Donovan stated in strong terms that he would see to it that this would not be

the result of another committee study because the Omnitron could do things that the other machines could not do. The reason he wants the additional committee study is to find which machine is best for the limited field of five to ten MeV per nucleon heavy ions. Donovan said he would keep us informed if he takes any further steps toward the creation of such an additional evaluation committee.

I transmitted by letter, dated October 29, 1968, to Harry MacPherson my draft remarks for the President on the subject, "Atomic Energy in the Next Decade."

I wrote a long letter to Pete, commenting on the student problem at Berkeley and other matters (copy attached). I also wrote to Lynne and Bill to express the hope that I can find time to visit them at Harvard this fall.

At 6:30 p.m. Helen and I attended a reception at the Smithsonian Museum of History and Technology for attendees at the Joint FCST-University Symposium.

I flew to New York on the 8 p.m. Eastern Airlines shuttle and spent the night at the Hotel Commodore.

Wednesday, October 30, 1968- New York- D.C.

The news this morning is that Luis Alvarez has won the Nobel Prize in Physics for his hydrogen bubble chamber work, including the discovery of "resonance" particles. My persistent nominations have finally paid off.

I had lunch with Clark Kerr at the Waldorf-Astoria Hotel. We discussed the situation at Berkeley and my forthcoming speech to the Council of Graduate Schools to be given in San Francisco on December 4th.

I then met Arnie Fritsch (who arrived late last night and spent the night with his parents) and we visited the headquarters of the American-Scandinavian Foundation (of which I am a trustee) at 127 E. 73rd Street. I talked to President Peter Strong and other members of the staff and toured the building. Their building is the former home of Charles Dana Gibson.

I attended a reception and lunch of the Hayden, Stone Forum on Nuclear Energy at the Waldorf-Astoria Hotel. I spoke in the Empire Room on "The Nuclear Industry--1968 and Beyond," illustrated with slides. More than 100 people, representing more than \$50 billion in financial assets, were present. After talks by Dean A. McGee (Chairman, Kerr-McGee Corporation), John W. Simpson (Vice President, Westinghouse Electric Corporation), Sherman R. Knapp (Chairman, Northwest Utilities), Frederic de Hoffmann (President, General Atomic, Inc.) and Thomas O'Brien (Vice President, First National Bank), I answered questions as a member of the panel. Alfred J. "Bud" Coyle and Robert L. Clark of Hayden, Stone presided over the first part of the program, consisting of the speeches. John Hogerton (Arthur D. Little, Inc.) presided over the panel discussion.

Fritsch and I flew back to Washington on American Airlines Flight No. 529 (leaving at 4:30 p.m. and arriving at 5:30 p.m.).

After a stop at the D.C. office at 5:50 p.m., during which I phoned congratulations to Alvarez at Berkeley, I attended a reception at the Shoreham Hotel, preceding dinner (which I didn't attend), for attendees at the FCST-University Symposium.

October 29, 1968

Dear Pete:

We thoroughly enjoyed your letter and savored every word of it. I think your views on the problem at Berkeley were quite well stated, and I agree with your philosophy to a large extent, but not entirely. I'll try to comment on and answer the various questions that you posed.

I believe that the regents made a mistake in not allowing Cleaver to lecture for credit, and as you know, they are fairly evenly split on this issue. However, the importance of this issue ranks nowhere near the importance of some past issues - for example, the loyalty oath. I am afraid this issue can damage the University and run counter to the hope that this institution "continue to be a true and a great University." I am afraid it is part of a larger target, aimed at changing the nature of the University in a way that I am thoroughly convinced would be wrong. (You can pick up some of my philosophy on this in the draft of the speech I sent you.) Of course, I am speaking from my background as a former Chancellor of the Berkeley campus, which gives me both an insight that many others don't have, but perhaps also produces in me a prejudice against drastic change. However, this experience and insight lead me to suggest a word of warning to you. Do not make a judgment concerning some of the professors who are in the vanguard for drastic changes in the University without hearing them first-hand and making a personal judgment. I warn you that many of them are real lightweights who are using this means as an outlet for their frustrations.

By the way, if you want a point of view that is probably more extreme than mine, but quite well thought out on the basis of much experience, get in touch with Dan Wilkes. Why don't you give him a call and have lunch with him some day. I think it would be a broadening experience, even though it might not change your point of view very much.

I think your reasoning on your voting in the election is good, and I won't comment further on this.

With respect to your question regarding our land in Orinda (the de La Veaga plot), it is located just across from the Grizzly Stables on Lomas Cantadas, operated by Mr. & Mrs. Ensminger. We have an informal arrangement with them whereby their horses have access to the lot (by crossing it), in exchange for their paying our taxes. I should think that you could go there and camp out some weekend as far as the Ensmingers are concerned, provided it doesn't violate some local ordinance. I have written Mr. Ensminger (copy enclosed) so that he will expect you. I would just go up to whichever employee you find, introduce yourself, and say you would like to see Mr. Ensminger. He is living next to the Stables in what appears to me to be a trailer-type house.

With respect to a car, I think your suggestion is all right, particularly if you can get a '68 model.

I wouldn't worry too much about the Lafayette house. I think you are earning your fee by keeping in touch with the Carneys the way you are doing and giving them your advice on problems that develop. However, if you can make some of the repairs that you mentioned, this is fine also.

We were interested to learn of the improvement in your allergy condition. I sent you yesterday copies of the information furnished by Dr. Alfaro, and which we sent to your draft board in the manner you suggested.

We have been wondering whether you have taken advantage of the fact that Berkeley finally has a good football team by going to the games on Saturday. I wish I were able to get out there to go with you. As your Mother has said many times, 1968 should be a good year for the Golden Bears because they had Rose Bowl-bound teams in 1928, 1937, 1948 (as well as 1949 and 1950), and 1958.

Things are going quite well at home. Eric and Dianne and your Mother and I took a hike in Catoctin Mountain Park in Maryland last Saturday, along with the Fritsches, Julie and Scottie (his daughter) Rubin, and Doris Knief (Doris is

Pat Goodwin's replacement - Pat is spending a year at Stanford).

Dianne will have her birthday party this coming Sunday. Actually, her birthday is on Saturday, but she was late in getting her invitations out, so that somebody else pre-empted the date for a party.

Your Mother is busy with her duties on the board of the local YWCA.

I think this is as much as I have time to write at this time.

With love,

Encl.

P.S. - I am enclosing a copy of an article in the current issue of ATLANTIC, which I think you will find interesting, and with which I, of course, don't agree entirely. I bought a copy of Jacques Barzun's book, and I must say that I don't entirely agree with his point of view either.

I might also add that I am somewhat concerned about the feeling of some students that the universities shouldn't carry on research work in laboratories like Berkeley's Radiation Laboratory, because it is supported by the Federal Government and agencies like the Atomic Energy Commission. I think this is a form of anti-intellectualism, although, of course, the students don't recognize it as such. As you know, the research people at such places are absolutely free to carry on their scholarly programs. Also, the professors, contrary to the opinion of many non-science students, are generally not distracted from their teaching duties by governmental obligations, and actually are good teachers (by testimony of their students) - often better in their fields than the humanities professors are in theirs (even though the humanities professors have less governmental involvement).

Thursday, October 31, 1968- D.C.

At 9:15 a.m. I called Herman Wouk (a campmate at the Wayside Log in the Bohemian Grove) and told him I was delighted to receive his letter of October 29th, inviting me to lunch on November 13th at the Metropolitan Club with Herman and a group of "regulars" (the Irish Ambassador, Herblock, John Walker, Frank Shor of National Geographic, Dick Scammon, et al.). I said I would very much like to participate in such a get-together sometime; however, November 13th happens to come during a week when I will be honorary chairman of an international conference dealing with atomic energy, and as a result, I am booked for lunch every day that week. He said they meet once a month (on no pre-set date) and they will invite me again. I said that the more advance notice I have, the better. He said he would try to nail down the date of the next luncheon and he will be back in touch with me.

At 10 a.m. the Commissioners (except Ramey) and staff met with J. L. Atwood (President, North American Rockwell Corporation), John J. Flaherty (President, Atomics International Division), H. M. Dieckamp (Vice President, Atomics International Division), Robert L. Loftness (Director, Eastern Region Office, Atomics International Division), W. G. Kuhns (President, General Public Utilities), L. H. Roddis (Vice President, Nuclear Systems, General Public Utilities), John Kiely (Executive Vice President, Bechtel) and others. Atwood, Kuhns, Flaherty, and Dieckamp described their joint plans to build a 500 MWe LMFBR demonstration plant, hopefully with AEC financial support. I told them about our plan to solicit proposals according to criteria we will issue soon.

I talked to Bill Roth by phone about the Berkeley situation.

At 11:40 a.m. I met with Carroll Zabel (Chairman, ACRS). Zabel said he wanted to discuss three matters:

1) He said he has worked hard on increased communication between the ACRS and the Commissioners, and asked whether I think the results are worthwhile. I said I definitely think they are worthwhile. He suggested that I make my feelings known to the ACRS either at a meeting this year or early next year because it is a continuing battle for him to overcome the resistance of some of the members toward such communication.

2) He called attention to the troubles with the nuclear power plants that are being built throughout the country, and expressed the view that this is very serious. He mentioned the possibility that supposedly ductile steel in pressure vessels becomes brittle in the larger thicknesses required in such vessels, and we both agreed that this could lead to catastrophic consequences. He said that this underlines the need for more people in regulatory, in licensing and compliance. I agreed and pointed out that our problem is with the personnel limitations imposed by BOB. In order to overcome this to some extent, we are even taking people away from the General Manager in order to keep the regulatory staff as large as possible.

3) He also discussed the progress of the in-house committee, of which he is a member, which is studying the regulatory process in order to recommend improvements. He said that progress is being made, but not as fast as he would like. I emphasized my view that the committee should take time at each meeting to assess the progress and begin to frame its recommendations, rather than going on from meeting to meeting just



listening to the people they bring in. Zabel said they are doing some of this, but perhaps not as much as they should.

At 12:30 p.m. I had lunch with Frank Costagliola at the Metropolitan Club. We discussed his role in Commissioner assignments.

Admiral Rickover called to say that the submarine Scorpion's remains have been found.

At 3:25 p.m. I was interviewed on the AEC regulatory process by Lucy Komisar of Public Broadcasting Laboratories. (She is gathering material for an hour-long film on electric power.)

During the evening I went with Dianne and her friend Amy Ballou on their "trick or treat" rounds.

President Johnson announced his decision to halt the bombing of North Vietnam on TV at 8 p.m. tonight.

Friday, November 1, 1968- Germantown

At 9:45 a.m. I presided over Information Meeting 844 (notes attached).

At 12:30 p.m. Arnie Fritsch, Julie Rubin, Stan Schneider and I took Jim Threlkeld to lunch at the Charcoal Inn in Gaithersburg in recognition of his last day in the Chairman's Office--he is moving to the reports section. We gave him a book as a going-away present.

At 3:25 p.m. a party was given for Arnie Fritsch as a tribute in connection with his leaving next week to go to work for Gulf General Atomic in San Diego. Betsey attended, along with some 50 senior staff members, secretaries, etc. We gave him a pen set, a humorous plaque (declaring his D.C. office a national historical landmark) and we played the humorous tape (used last Saturday night). I spoke, rendering a tribute to Fritsch's long and valuable service, and he responded movingly.

David Parry, Pete's Harvard apartment-mate, now a graduate student at Columbia University, spent the night with us.

Saturday, November 2, 1968- D.C.

I worked in the D. C. office in the morning from 9:30 a.m. to 12:30 p.m. I had lunch at home.

I wrote a long letter to Dave at Davis bringing him up to date on family activities (copy attached).

Steve took his SAT exams this morning. Steve and I played nine holes of golf at Chevy Chase Club--I managed to beat him 50 to 56.

We had Dianne's birthday dinner tonight. Allyne Snyder was with us. She and the family gave Dianne presents.

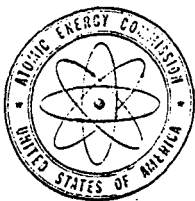
Sunday, November 3, 1968- D.C.

Eric, Suki and I took a hike in Rock Creek Park.

Dianne had a birthday party attended by 20 young friends, (17 girls, 3 boys). I took color snapshots and movies.



Dianne's Birthday Party, November 3, 1968- Front: Charlie Schwartz, Dianne Seaborg, unidentified, unidentified, Liz McClellan, Regina Archilla, Amy Ballou, Jessica Nisoll, Ann Scheschot; Back: unidentified, unidentified, Patty Archilla, Graham Davis, Laura Dodd, Sarah Luria, Kat McCullough, unidentified, Matthew Walker



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

COPY NO. 2  
November 1, 1968

INFORMATION MEETING 844

9:50 a. m., Friday, November 1, 1968, Room A-458, Germantown Headquarters

1. October 24 Letter from Vincent Abajian, Vice President, Electro-Nucleonics, Inc., re Information on Their Plans to Undertake Major Capital Funding

A reply is requested. (AGM)

2. October 28 Letter from John Conway re NATO Security Breaches

A reply is requested. The Chairman said security would be one of the particular areas which Commissioner Costagliola would follow.  
(AGM-S-SECY)

3. Mr. Harris' October 29 Memorandum re Requested Interviews with Individual Commissioners

The Chairman commented he had seen Miss Komisar yesterday and suggested perhaps Commissioner Ramey might see her as well. (Ryan-PI)

4. October 28 Letter from John Foster re Summary of Current Activities and Future Interest in Development of Improved Tactical Nuclear Weapons

A reply is requested. (AGMMA)

5. Commissioner Tape's October 31 Letter to Mr. Zalman Shapiro, President, NUMEC, re Medical Planning and Care in Radiation Accidents

Noted.

6. Commissioner Costagliola's Oral Report on his October 29 Trip to Oak Ridge

7. Commissioner Johnson's Comment re Operation of the FFTF

8. Commissioner Tape's Comment re Special OST Panel Meeting, November 7 and 8, 1968

9. CERN 300 GEV Accelerator

10. Agenda for the Week of November 4, 1968

Approved. (SECY)

11. Cost Benefit Analysis on the Fast Breeder Reactor Program

Mr. Bloch said a paper will be circulated for Commission consideration on Wednesday, November 6. (SECY)

12. Commissioners' Photograph, 10:00 a. m. , Tuesday, November 5, 1968, Room A-410, Germantown (PI-SECY)

13. NTS Events (See General Giller's October 31 Memorandum)

Noted. (AGMMA)

14. AEC 267/100 - Loan of Used Equipment Abroad

Approved. (AGMLA)

15. AEC 23/79 - Special COCOM Treatment for Romania

Approved. (AGMLA)

16. AEC 844/32 - Disposal of Real Estate at Savannah River to Barnwell Co., S. C.

Staff may proceed. (CONS)

17. AEC 1294 - Close-out of Pulsed Reactor Development Work

Further consideration and rescheduling are requested. (AGMR-AGMR&D)

18. Pending Contractual Matters Report No. 281

Noted. (PAR)

19. Mr. Brown's Oral Report on Discussions with Securities and Exchange Commission Representatives re Electro-Nucleonics, Inc., Financial Report to the SEC

Staff will report further on their discussions with SEC. (AGM)

W. B. McCool  
Secretary

10:55 a. m.

PRESENT:

COMMISSIONERS:

Chairman Seaborg  
Commissioner Tape  
Commissioner Johnson  
Commissioner Costagliola

STAFF:

Mr. Bloch  
Mr. Brown  
Mr. Abbadessa  
Mr. Ferguson  
Mr. Kull  
Mr. Ryan  
Mr. McCool  
Mr. Kratzer\*  
Dr. Kavanagh\*  
Dr. English\*  
Dr. McDaniel\*  
Mr. Sinclair\*

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Commissioners  
General Manager  
General Counsel  
Secretary

\*Attendance by Topic (s)

November 2, 1968

Dear Dave:

I am writing to bring you up-to-date with happenings at home.

My trip to Seattle to receive the Arches of Science Award was very interesting, especially because I met a number of relatives whose existence I knew about only in a general way. Although you may not get up to the Seattle area, you might be interested in these relatives and I am enclosing a list of their addresses.

The parents of Farfar's mother spent the last decade of their lives in Seattle at about the turn of the century. They were John and Marie Christina Farrell. Their granddaughter, Mrs. C. M. (Alice) Landen, still lives in the old family home and her daughter, Mrs. R. D. Randrupp, and her husband live next door. Her brother, Earle Melvin Farrell, lives in Spokane, and he has a daughter, Mrs. Marvin Nelson, who lives with her husband in Portland.

Great-grandfather John Seaborg had a brother, Peter Seaborg, whose great-granddaughter, Mrs. Joseph (Charlotte) Brown, and her husband live in Tacoma. They have four children: Susan, 21; Sally, 19 (both students at Duke); Clifford, 13; and Barbara, 11. They are your fourth cousins.

Charles Seaborg and his family now live in Seattle. His father, my Uncle Henry Seaborg, is also living there in a nursing home. Charles' son Chuck is a sophomore at the University of California, Berkeley, living in an apartment. I have asked Charles to send us Chuck's address and phone number but I haven't received it yet. I thought you might want to look Chuck up sometime.

We have talked to Pete by phone and he seems to be getting along all right. I believe that he is managing to keep from being involved directly in the various

"sit-ins", etc., although I believe he is favorably inclined toward the point of view of the supporters of Cleaver. He is living in an apartment and you probably know his address and phone number but in any case here they are: 2335 Dwight Way, Apt. 104, Berkeley, Calif. 94704, 415/549-2839.

We talked to Lynne and Bill by phone this morning and they seem to be getting along fine. They and some of their friends are going to visit us at Thanksgiving and, of course, we are looking forward to this very much. I hope to get up to Cambridge to see them some weekend and perhaps see the undefeated Harvard football team play.

And speaking of football, you probably know that Berkeley is doing pretty well this year. After beating Syracuse 43 to 0 last Saturday they were ranked eighth nationally. I suppose they should be rated an outside chance of going to the Rose Bowl in which case I would probably try to get out there. Maybe you would want to go to Pasadena too on your way back to Davis. Of course, this all depends on some big "ifs" such as California beating Washington this afternoon (you will know the results of this game by the time you receive this letter) and, of course, beating USC and O. J. Simpson.

The big Steve is taking his SAT exams this morning. He prepared for this by going out with "Coop" to see a show last night. He is beginning to beat me in golf now. I think he shot a 50 for nine holes the last time we were out. The weather today is very beautiful and we may play some golf this afternoon.

Eric still has his paper route with Joe Canary. Your Mother and I visited his mock classes during Parents' Night at Deal recently and had the opportunity to meet his teachers. Your Mother attended similar functions at Murch and Wilson but I was out of town and missed them.

Today is Dianne's birthday and she is having her traditional birthday dinner with the family tonight. Her birthday party is actually tomorrow afternoon since today was pre-empted by one of her friends who got her invitations out before Dianne got going on this.

Dianne, Eric, your Mother and I, along with the Fritsches, Julie and Scottie (his daughter) Rubin and Doris Knief (Pat Goodwin's replacement - Pat is spending a year at Stanford) had a hike in Catoctin Mountain Park last Saturday. We hiked by Wolf Rock and Chimney Rock. It was a cold day and we even had a few flakes of snow at Wolf Rock.

David Perry, Pete's friend and former apartment mate, spent last night with us. He is now a graduate student in architecture at Columbia University and is in Washington to attend some architectural meetings.

Your Mother is busier than ever, particularly with affairs of the Board of the YWCA. She is also involved with Murch and a number of other activities to keep her busy.

These are just a few of the happenings at home that I thought you would be interested in. We very much hope that you will drop us a line and bring us up-to-date on your activities.

With love,

GTS:HG  
Seaborg, David



Allyne Snyder spent the day and had dinner with us.

I worked on my speech, "The Government-University Partnership in Graduate Education," to be given at the Eighth Annual Meeting of the Council of Graduate Schools in the United States, in San Francisco on December 4, 1968.

Monday, November 4, 1968- Bethesda- Germantown

At 9:30 a.m. I presided over Regulatory Meeting 270 (action summary attached).

At 10:20 a.m. I presided over Regulatory Information Meeting 317 (notes attached). The Commission met all morning in the new Commission building (Phillips Building) in Bethesda on regulatory agenda. This building now houses all divisions not housed at Germantown.

At 12:45 p.m. I had lunch in my Germantown conference room with Dick Hewlett, Stan Schneider, and Julie Rubin to discuss Hewlett's progress on the Johnson historical volume (guidance volume) and on my tape interviews for the Johnson Library.

At 2:45 p.m. I presided over Executive Session (Adjudicatory) 180, at which the Commission agreed to permit the Initial Decision Granting Provisional Construction Permits In the Matter of Public Service Electric and Gas Company (Salem Nuclear Operating Station Units 1 and 2) Docket Nos. 50-272 and 50-311 to become final on November 8, 1968.

At 2:55 p.m. I presided over Information Meeting 845 (notes attached).

I watched the presidential candidates wind up the TV sessions--Nixon on NBC and Humphrey and Muskie on ABC.

Tuesday, November 5, 1968- Germantown

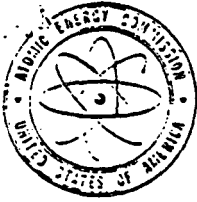
I worked on my speech, "The Government-University Partnership in Graduate Education," to be given at the Eighth Annual Meeting of the Council of Graduate Schools in the United States in San Francisco on December 4, 1968.

At 12:30 p.m. I had lunch in the cafeteria with Bob Hollingsworth, Ed Bloch, Don Kull, Julie Rubin and Justin Bloom. We discussed a number of problems facing the Commission.

I watched the election returns on TV throughout much of the night.

Wednesday, November 6, 1968- D.C.

At 10:45 a.m. I called Professor Harold K. Hughes of Indiana State University to tell him I have not been neglecting his invitation to speak at the dedication of their new Science Building on January 9, 1969, but my schedule has not been clear enough to give him a definite answer. I said it doesn't look as though I would want to be out of Washington on January 9th but that I will be making a trip to the Midwest in the middle of April and could probably do it on Wednesday, April 16th, in the afternoon. In any event, it would have to be tentative at this time. He said he thinks April 16th would be all right but he would check the campus calendar and let me know.



910525

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ATOMIC ENERGY COMMISSION  
WASHINGTON, D.C. 20545

OFFICE DIARY  
GLENN T. SEABORG  
Chr USAEC 1961-72  
FOLDER-PAGE 95010

November 5, 1968  
(Revised November 7, 1968)

H. L. Price, Director of Regulation

ACTION SUMMARY OF REGULATORY MEETING 270, MONDAY, NOVEMBER 4, 1968, 9:35 A.M.  
ROOM P-422, BETHESDA, MARYLAND

Commission Business

1. AEC 985/22 - Proposed Amendments to 10 CFR Part 20 - Implementation of Records and Report System for Radiation Workers

Discussed.

The Commission accepted the AELMAC recommendations with certain modifications and approved the proposed course of action as set forth in the discussion paper. The Commission requested that the amendments to Part 20 (to be submitted for formal approval) provide for an effective date 60 days after publication in the Federal Register. The notice should also contain an invitation for public comments. (ADRA/WCTF)

2. AEC 985/23 - Pilot Record Keeping Program with Selected States

Approved.

The Commission requested the cost information be refined. (ADRA/WCTF)

\*\*\*\*\*

3. Regulatory Information Meeting 317

\*\*\*\*\*

4. AEC-R 2/67 - Amendments to 10 CFR Part 50: Technical Specifications; Technical Information Required of Applicants

Approved with the understanding that the provision concerning changes in the facility or in technical specifications would be revised so as to state explicitly that the initiator of a change will prepare a technical basis for the change.

CONFIRMED TO BE UNCLASSIFIED  
AUTHORITY: DOE-DPC (D) 7/8/84  
BY E.G. BOGER DATE: 7/11/86

H. L. Price  
Action Summary  
Regulatory Mtg. 270

-2-

November 5, 1968  
(Revised November 7, 1968)

5. AEC-R 30/89 - Proposed Amendment to 10 CFR Parts 30, 31 and 32 - Exemption of Electron Tubes Containing Byproduct Material

Approved. (RPS)

6. AEC-R 30/90 - Amendments to 10 CFR Parts 31 and 32 - General Radiation Protection Standards License for Certain Uses of I-125 or I-131

Approved. (RPS)

7. AEC-R 2/68 - Proposed Amendments to 10 CFR Parts 50 and 115 to Permit Placing of Foundations and Other Related Work Prior to Issuance of Construction Permit

Discussed.

The Commission noted this matter would be discussed with the ACRS during the December meeting. (SECY)

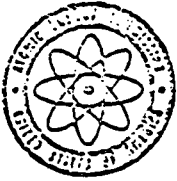
8. Briefing on Status of Reactor Licensing Activities

Deferred. To be rescheduled at an early date. (SECY)

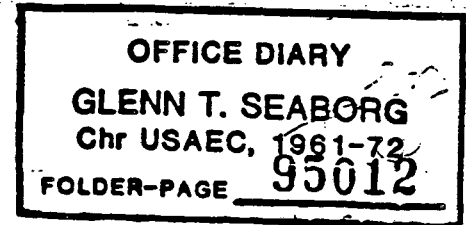
Original signed  
W. S. McCool

W. B. McCool  
Secretary

cc:  
Chairman Seaborg  
Commissioner Ramey  
Commissioner Tape  
Commissioner Johnson  
Commissioner Costagliola



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ATOMIC ENERGY COMMISSION  
WASHINGTON, D.C. 20545



REGULATORY INFORMATION MEETING 317

10:20 a. m., Monday, November 4, 1968, Room P-422, Bethesda Office

1. November 1 Letter from Congressman Melvin Price re Department of Labor Hearings November 20 on Radiation Protection for Uranium Miners

Mr. Erlwine reported staff is preparing a statement for the November 20 Hearings. The forthcoming letter from Dr. Carl Walske, Assistant to the Secretary of Defense for Atomic Energy, will be circulated. (AGMO-SECY)

2. Mr. Price's Oral Report on Zion, Commonwealth Edison Company, Docket Nos. 50-295 and 50-304

Discussed and to be discussed again on Wednesday, November 6. (ADRA-SECY)

3. Mr. Price's October 30 Memorandum re Extended Emplacement of Radioisotope Powered Generators on the Sea Floor

Approved. Mr. Price reported staff is awaiting a reply from the Department of State. (ADRA)

4. Mr. Price's October 31 Memorandum re Letter from Food and Drug Administration to Dow Chemical Company

Discussions with FDA staff are to continue and the Commissioners requested a letter for the Chairman to send the Secretary of HEW. (ADRA)

5. Briefing on the K Reactor, Hanford

To be scheduled. (SECY)

6. Mr. Price's Oral Report on the October 31, November 1 and 2 Meeting of the Advisory Committee on Reactor Safeguards

W. B. McCool  
Secretary

11:05 a. m.

CONFIRMED TO BE UNCLASSIFIED  
AUTHORITY: DOE/DPC  
BY: B. BOGER DATE: 6/5/86  
*[Handwritten signature]* 2/11/86

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**GLENN T. SEABORG**  
**Chr USAEC, 1961-72**  
**FOLDER-PAGE 95013**

PRESENT:

COMMISSIONERS:

Chairman Seaborg  
Commissioner Ramey  
Commissioner Tape  
Commissioner Johnson  
Commissioner Costagliola

STAFF:

Mr. Price  
Dr. Beck  
Mr. Henderson  
Dr. Mann  
Mr. Doane  
Mr. Schur  
Mr. Rubin  
Mr. Bloom  
Mr. Ryan  
Mr. Morris  
Mr. Rosen  
Mr. McCool  
Mr. Bloch\*  
Mr. Erlewine\*

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Dir/Regulation  
General Counsel  
General Manager  
Secretary

\*Attendance by Topic (s)



910529

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WASHINGTON, D.C. 20545

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COPY NO. 5  
November 4, 1968

INFORMATION MEETING 845

2:55 p. m., Monday, November 4, 1968, Room A-458, Germantown Headquarters

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1. AEC 132/141 - Report of Division of Inspection (See also AEC 132/142 and AEC 132/143)

Discussed.

\*\*\*\*\*

2. Telephone Query to the Chairman this Morning from Mr. George Murphy, JCAE, re Hanford Reactors
3. Commissioner Ramey's October 8 Memorandum re Establishment of an Atomic Safety and Licensing Appeal Board

To be scheduled for consideration Wednesday, November 6. (SECY)

4. Briefing by Members of Special Panel, 3:00 p. m., Wednesday, November 6
5. Commissioners' December 3, 4, and 5 Visit with the GAC Subcommittee  
Scheduled. (SECY)
6. October 30 Letter from Jim Young, AIF, re Future Operation and Ownership of Enrichment Plants

A response saying the Commission would be happy to cooperate in a meeting of all interested persons at some later time is requested. (AGMP&P)

CONFIRMED TO BE UNCLASSIFIED  
AUTHORITY: DOE-DPC (B) 12/8/81  
BY R.G. BOGER, DATE

*[Handwritten signature]* 7/11/86

7. AEC 1260/1 - Toll Enrichment Contracts with Customers Abroad

Approved. (AGMLA)

8. AEC 23/79 - Special COCOM Treatment for Romania

Commissioner Tape noted the request for export of fabrication technology.

9. Espionage in Europe

Commissioner Costagliola will discuss with Dr. Carl Walske, Assistant to the Secretary of Defense for Atomic Energy, this afternoon. (Griffin)

10. AEC 901/396 - Proposed Visit to AEC Headquarters by USSR Nationals

Approved. (AGMLA)

11. Attendance at Soviet Embassy November 7 Reception

Staff will confirm Department of State policy. (AGMLA)

12. Fuel in Reactor at Dalat, South Vietnam

Mr. Kratzer reported the fuel had not yet been removed.

13. AEC 20/218 - Atlas Corporation

Noted. (RM)

14. AEC 20/217 - Draft Paper, "Uranium Exploration and Production Activities in the United States"

Noted with comments. (RM)

15. AEC 1295 - Naval Reactors History Project

Approved. (SECY)

W. B. McCool  
Secretary

3:35 p. m.

OFFICE DIARY  
GLENN T. SEABORG  
Chr USAEC, 1961-72  
FOLDER-PAGE 95018

PRESENT:

COMMISSIONERS:

Chairman Seaborg  
Commissioner Ramey  
Commissioner Tape  
Commissioner Johnson  
Commissioner Costagliola

STAFF:

Mr. Hollingsworth  
Mr. Bloch  
Mr. Brown  
Mr. Abbadessa  
Mr. Ferguson  
Mr. Kull  
Mr. Rubin  
Mr. McCool  
Mr. Quinn\*  
Mr. Kratzer\*

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General Counsel  
Secretary

\*Attendance by Topic (s)



At 11:15 a.m. I presided over Information Meeting 846 (notes attached).

During the morning Nixon acquired the electoral votes needed (287). Humphrey conceded at noon and Nixon made his victory statement at 12:30 p.m.

At 1 p.m. I had lunch with Bill Roth at the Metropolitan Club. We discussed the continuing trouble at the University of California. To make it worse, the bond issue lost yesterday.

At 2:45 p.m. I presided over Regulatory Information Meeting 318 (notes attached).

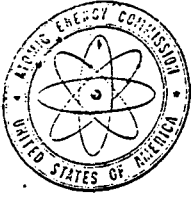
The Commissioners were briefed by J. Healy (USGS), P. Loux (Environmental Research Corporation), J. A. Blume (JAB Association), P. Fenske (Isotopes, Inc.), and H. Mueller (ESSA/ARL) on the presentation they will make tomorrow to the OST Ad Hoc Panel on Safety of Underground Testing (in Nevada).

Thursday, November 7, 1968- D.C.

At 9 a.m. I attended the meeting (Room 208, EOB) of the OST Ad Hoc Panel on the Safety of Underground Testing (for appraising the safety of AEC weapons testing in Nevada) with Commissioner Tape, Edward Giller (Director, DMA), and our covey of briefers. Panel members present were Kenneth S. Pitzer (Chairman), Ray W. Clough (Berkeley), Gordon J. F. MacDonald, Frank Press, William W. Rubey, Ronald F. Scott, and David K. Todd (Berkeley). The meeting will continue tomorrow, at which time they will render their report unless they need more information and time.



American Institute of Aeronautics and Astronautics Luncheon, November 7, 1968  
L to R: Homer E. Newell, Olin E. Teague, Seaborg, Edward C. Welsh, and Solis Horowitz



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

COPY NO.             
November 6, 1968

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INFORMATION MEETING 846

11:15 a.m., Wednesday, November 6, 1968, Chairman's Conference Room

1. Commission Calendar for the Weeks of November 11, 18, 25, and  
December 2, 1968

- a. Commission Meeting, 9:45 a.m. -12:00 Noon, Monday,  
November 11, 1968, Room 1115, D. C. Office
- b. Commission Meetings, 10:30 a.m. and 2:30 p.m.,  
November 29, 1968 (Tentative)

FY 1970 Budget Estimates

- c. Commission Meetings, 10:30 a.m. and 2:30 p.m.,  
December 2, 1968 (Tentative)

FY 1970 Budget Estimates

Scheduled. (SECY)

2. Mr. Vinciguerra's November 4 Memorandum re Leasing of Space in  
Rosslyn Area

Noted. (AGMA)

3. Commissioners' Meeting with the Atomic Industrial Forum, October 16, 1969

Scheduled. (IP-SECY)

4. November 1 Letter from Karl Cohen, ANS, re Organizational Membership

Staff views are requested. (GC)

5. Proposed Letter to Philip Hughes, BoB, re Thermal Effects Problem

To be revised for signature by the Chairman or General Manager. (GC)

6. Proposed Letter to H. R. Richmond, Bonneville Power Administration, re N Reactor

Approved with changes. (Helfrich)

7. Commissioner Costagliola's Oral Report on His Meeting with Dr. Carl Walske, Assistant to the Secretary of Defense for Atomic Energy, to Discuss Plans for European Trip

8. Commissioner Tape's Oral Report on His Discussions with Messrs. Walske and Foster, DOD, re High Yield Test Program

9. Radiation Standards for Uranium Miners

The recommended position is approved. Staff will prepare a reply to Congressman Melvin Price's November 1 letter. (AGMO)

10. AEC 1036/100 - Definition of "Reasonable Progress" in Undergrounding of Power Lines at Woodside

The letter is to be signed by staff. (AGMO)

11. AEC 1037/51 - Visit of H. Hulubei, Chairman, Romanian Committee for Nuclear Energy

Approved. Commissioner Tape requested staff views on payment of travel expenses in the Visitor Exchange Program. (AGMIA)

12. AEC 1072/3 - Certificate of Appreciation

Approved. (AGMR)

13. AEC 459/51 - Cost Estimates for New Diffusion Plant Capacity

Approved. (AGMP&P)

14. AEC 141/110 - Weekly Report on Classified Technical Briefings

Noted. (SECY)

15. AEC 549/28 - Publication of Report from MPRE Program

Noted. (C)

16. AEC 580/289 - AEC Contingency Stockpile

To be rescheduled. (SECY)

17. Pending Contractual Matters Report No. 282

Noted subject to Commissioner Ramey's comments. (PAR-SECY)

18. AEC 1211/13 - Nuclear Power Supplies for Heart Devices

Noted. Commissioners Tape, Johnson, and Costagliola will attend the November 18 Meeting at the BoB with staff. (OC-ID)

W. B. McCool  
Secretary

12:35 p.m.

PRESENT:

COMMISSIONERS:

Chairman Seaborg  
Commissioner Ramey  
Commissioner Tape  
Commissioner Johnson  
Commissioner Costagliola

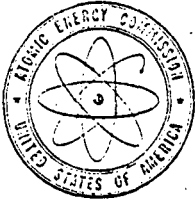
STAFF:

Mr. Hollingsworth  
Mr. Brown  
Mr. Abbadessa  
Mr. Hennessey  
Mr. Rubin  
Mr. Kull  
Mr. McCool  
Mr. Schur\*  
Mr. Wells\*  
Mr. Erlewine\*  
Mr. Quinn\*  
Dr. Biles\*  
Mr. Faulkner\*  
Dr. Friedman\*  
Dr. Kavanagh\*

DISTRIBUTION:

Commissioners  
General Manager\*  
General Counsel  
Secretary

\*Attendance by Topic (s)



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

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 NOV 04

REGULATORY INFORMATION MEETING 318

2:50 p.m., Wednesday, November 6, 1968, Chairman's Conference Room, D. C.

1. AEC-R 4/55 - Establishment of Atomic Safety and Licensing Appeal Boards (See also Mr. Hennessey's October 31 Memorandum re Separate Agency Question); and, AEC-R 4/56 - Draft Public Announcement on Establishment of Atomic Safety and Licensing Appeal Boards

Discussed and to be rescheduled. (GC)

2. AEC-R 183/3 - Sacramento Municipal Utility District - Initial Decision

Approved. (ADRA)

3. Oral Report on ACRS Comments on AEC 180/47 - Siting of Commercial Reprocessing Plants and Related Waste Management Facilities

4. Mr. Price's November 5 Memorandum re Extended Emplacement of Radioisotope Powered Generators on the Sea Floor

Noted.

W. B. McCool  
 Secretary

3:20 pm

PRESENT:

COMMISSIONERS:

Chairman Seaborg  
 Commissioner Ramey  
 Commissioner Tape  
 Commissioner Johnson  
 Commissioner Costagliola

STAFF:

Mr. Price  
 Mr. Hennessey  
 Mr. Wells  
 Mr. Schur  
 Mr. Rubin  
 Mr. Yore  
 Mr. McCool  
 Mr. Kull\*

DISTRIBUTION:

Commissioners  
 General Manager  
 Dir/Regulation  
 General Counsel  
 Secretary

\*Attendance by Topic (s)

At noon I attended a reception and luncheon of the American Institute of Aeronautics and Astronautics at the Hotel Washington. Thomas Paine (Acting Administrator of NASA) spoke on the benefits of the space program. Robert G. Smith, Jr. (head of the local section of the AIAA) presided. I sat between Paine and Ed Welsh. Among those at the head table were: Hank Edler (Program Chairman, who introduced Paine), Congressman Olin Teague, Floyd Thompson (National President of AIAA) and Bill Hines.

At 2 p.m. Julie Rubin, Justin Bloom and I met with Nat Stetson (Manager, SROO), A. A. Johnson (DuPont, Wilmington), Lombard Squires, Clark Ice, Bill Hale, and John Lowe (all of DuPont, Savannah River) for a briefing on high pressure ion exchange chromatography. The briefing was given by Bill Hale (a young chemist and Berkeley graduate) and John Lowe (also young and from the University of Illinois). Hale gave technical details of the SRL work on high pressure ion exchange separation and purification of transuranium elements ranging from plutonium to californium. The process is designed to overcome difficulties experienced in the TRAMEX flowsheet, where high chloride ion concentrations lead to corrosion problems and the use of an anionic ion exchanger is necessary (anionic ion exchange columns are difficult to operate remotely in a canyon). By using a cation exchange resin at about 400 mesh particle size in stainless steel columns ranging from one to four inches in diameter, excellent separations of the actinides can be obtained. Two precipitation steps partially purify the dissolved irradiated targets and this is followed by ion exchange chromatography under pressures of about 100-200 psi. The feed is in dilute  $\text{HNO}_3$ . Elution is accomplished by DPTA and NTA.

Flat-topped elution peaks with slight overlapping are obtained if each element is present in sufficient quantity to form a band. Any increase in quantity above the minimum required to form a band results in extending the length of the band but not the height of the peak. Flow rates of the order of 10-20 ml/cm<sup>2</sup> are obtained; the elution is relatively insensitive to flow rate. One anomaly observed is that californium elutes ahead of curium, which is not expected from reported stability constants for the actinides in this system. A good Cf-Cm separation can be obtained if a small amount of Al is deliberately added to the feed solution. Lowe described how the laboratory process might be scaled up to a production operation. It could be installed largely in existing buildings at Savannah River and could handle californium production from a resonance reactor at considerable savings (\$13 million versus \$30 million) over the TRAMEX process. Several years of development work are still required, but no additional R&D funds are needed for the time being.

At 4:30 p.m. I received a telephone call from George Mueller (NASA in Houston). He said he wanted to touch base once more about NASA not using the ALSEP package on the first manned lunar landing even though our respective staffs have met on this problem. He said the situation is now quite clear that they ought not to try to use ALSEP on the first flight, but that they plan to recast the program to fly the second mission shortly after the first one and this second flight will definitely carry the full ALSEP experiment; it will also be carried on the next two or three missions following that. I said our main concern is that ALSEP is used and he said they have every intention of using it. He said NASA has asked AEC if it would be possible to get a small isotopes heater to be used for heating electronic equipment at night (on the first flight) and AEC can supply it. I asked if there would be a reduced experiment in place of ALSEP and he said there would actually be three: 1) a window shade of aluminum, 2) the seismometer of the original ALSEP package, and 3) a laser reflector--the kind of experiments that require only one box. At the same time they represent the kind of task that will be deployed in ALSEP in order to get an idea of what the

astronautical problem is. He said he would like to meet me sometime within the next week to go over the whole program. I said that would be fine.

At 5:15 p.m. I called Governor Samuel Shapiro of Illinois and told him I was calling regarding the disturbing delays by the State of Illinois in making available priority tracts of land required to start construction of the 200 BeV Accelerator; that we had informed the state of the priorities and had expected to have access to the property by October 1st of this year. The piece of land of particular concern is the property owned by Mr. Schimmelphenig and bids will be opened on November 13th for work requiring access to this property.

Schimmelphenig has agreed to sell the land to the state but the state has not yet issued a check to the Chicago Title and Trust so the deal can be closed. I also told him the dedication ceremonies are set for December 1st. The Governor said he was not aware of these delays since he had released the money for all the tracts involved some time ago but he would be glad to look into the matter. I said we would greatly appreciate whatever he could do.

Friday, November 8, 1968- D.C.- Houston

I met, along with Commissioner Tape and Don Hornig, in Room 208, EOB, with the OST Ad Hoc Panel on the Safety of Underground Testing--Kenneth S. Pitzer (Chairman), Ray W. Clough, James R. Killian, George J. F. MacDonald, Frank Press, William W. Rubey, Ronald Scott, David K. Todd, and Spurgeon Keeny. They will recommend that the AEC make a public release for large yield tests on environmental hazards and on yields (or the equivalent in earthquake magnitudes). They--especially Press and, to some extent, MacDonald--are worried about tests triggering large earthquakes (i.e., a magnitude 6 test triggering a magnitude 7 or 8 earthquake).

At 1 p.m. I had lunch with Arnie Fritsch, a farewell affair at the Roger Smith Hotel.

At 3:30 p.m. I met with Roger Batzel and Harry Reynolds (LRL) who were in town to brief the OST Panel yesterday and today.

I flew to Houston on Eastern Airlines Flight No. 555, leaving Dulles at 7:40 p.m. and arriving in Houston about 10 p.m. Dr. W. T. Doherty met me. We discussed the possibility of the Welch Foundation restoring payment to me of fees (which I have foregone so I could make an assessment as to my possible conflict of interest) for my years of service on the Scientific Advisory Board since 1961. We agreed that there has been no conceivable conflict of interest and that the Welch Foundation should make these back payments.

I spent the night at the Rice Hotel.

Saturday, November 9, 1968- Houston

I attended the meeting of the Robert A. Welch Scientific Advisory Board in the Welch Foundation headquarters on the 20th floor of the Southwest Bank Building. W. T. Doherty was present at the start of the meeting. Present at the day-long meeting were W. O. Milligan, Wendell M. Stanley, Henry Eyring, Roger Adams, and I, and the two new members--William Baker (Bell Telephone Laboratories) and E. J. Corey (Harvard University). We had our picture taken. We had lunch in the Coronado Club (fifth floor). During the day we considered 111 research proposals submitted under the Foundation's General Invitation and 58 renewal proposals.

The SAB had dinner with the Welch Trustees--Daniel R. Bullard, W. T. Doherty, Roger J. Wolfe, and Jack Binion--in the Coronado Club. This was followed by our regular joint business meeting in the Welch headquarters.

Sunday, November 10, 1968- Houston and D.C.

I flew back to Washington on Eastern Airlines Flight No. 550, leaving at 8:40 a.m. and arriving at Dulles about 12:15 p.m. It had snowed in Washington during my absence.

I took a hike in Rock Creek Park with Dianne and Suki.

At 4:30 p.m. I attended the opening session of the AIF-ANS International Conference on the Constructive Uses of Atomic Energy. The meeting was in the Sheraton Hall of the Sheraton-Park Hotel and the hall was packed, including more than 300 from outside of the U.S. The meeting was presided over by James F. Young (President of the Atomic Industrial Forum). Karl P. Cohen (General Electric) introduced me and I spoke in my capacity as Honorary Chairman of the ANS portion of the joint conference on "The Peaceful Atom As An International Bond." Walker Cisler spoke in his capacity as Honorary Chairman of the AIF portion of the joint conference. This was followed by words of greeting from Fritz Hellwig (representing Euratom), Alonzo (representing IANEC), Skjöldebrand (representing IAEA; Eklund was sick), and Einar Saeland (representing ENEA).

At 6:30 p.m. Helen and I attended a reception given by Mr. and Mrs. Gaetano Lanzano (Scientific Attaché, Italian Embassy) at their home (8408 Beech Tree Road, Bethesda). Among those present were Italian Ambassador Egidio Ortona, Italian AEC Chairman Carlo Salvetti, Fritz Hellwig, Commissioner and Mrs. Tape, and Commissioner and Mrs. Johnson.

Monday, November 11, 1968- D.C.

At 10 a.m. I presided over Commission Meeting 2352 (action summary attached). At the Commission Meeting we discussed the possibility of modifying our policy of secrecy on our gaseous diffusion and gas centrifuge methods for enriching U-235. The Europeans and the Japanese are developing these methods and our policy seems to be outmoded if we want to influence them and stay abreast of them. Despite objections from Ramey, who prefers the status quo, we asked the staff to make a study, with the aim of coming up with various plans to make it possible to cooperate with the Europeans and Japanese in this area.

At 11:45 a.m. I presided over Information Meeting 847 (notes attached).

At 12:30 p.m. I attended the reception and luncheon of the AIF in the Shoreham Hotel. Ken Davis was Chairman. Harry G. Slater (Senior Vice President of Niagara Mohawk Power Corporation) presented AIF Awards in Public Understanding of Nuclear Power to Westinghouse and Philadelphia Electric and to Frank Carey of the A.P. Davis introduced me and I introduced Jim Young (President of AIF) who gave the "State of the Nuclear Industry" address.

At 5:30 p.m. I attended the reception given by Westinghouse and the Smithsonian Institution at the Museum of History and Technology to celebrate Westinghouse's 20th year in nuclear power generation.





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

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NOV 86

November 13, 1968  
Approved \_\_\_\_\_  
REH  
Date \_\_\_\_\_

R. E. Hollingsworth, General Manager

ACTION SUMMARY OF MEETING 2352, MONDAY, NOVEMBER 11, 1968, 10:05 A.M.,  
ROOM 1115, D. C. OFFICE

SECY:JFB

Regular Business

1. Executive Session - Intelligence Report.
2. AEC 610/135 - Estimate of Probable Developments in Gas Centrifuge Abroad  
Discussed.

The Commission approved transmittal of the letter, as contained in Appendix "D", to the JCAE. (AGMIA/AGMP&P)

3. AEC 610/136 - U.S. Policy Concerning Possible Forms of Cooperation with Foreign Entities in Isotope Enrichment Activities  
Discussed.

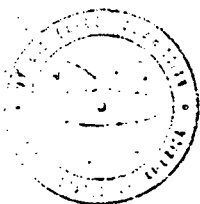
The Commission requested staff develop in more detail for further consideration alternative cases 1, 5, 7 and 8, including aspects of case 6, and suggested staff confer with the individual Commissioners to obtain their specific views. (AGMIA/AGMP&P)

4. AEC 610/137 - Response to U.K. Aide Memoire Concerning Gas Centrifuge  
Approved, as revised.

The Commission requested the last sentence of paragraph 7 in the response to the U.K. Aide Memoire be revised to include by reference an earlier U.S.-U.K. Classification Agreement. (AGMIA/C)

- AEC 585/67 - IMFER Demonstration Plant Program  
Approved. (RDT)

W. B. McCool  
Secretary



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

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COPY NO. 2  
November 11, 1968

INFORMATION MEETING 847

11:45 a.m., Monday, November 11, 1968, Room 1115, D. C. Office

1. Chairman's Discussion with NASA re SNAP Device for Lunar Mission
2. November 6 Letter from Dr. Hornig re Special Briefing for PSAC Panel on November 19, 1968  
Messrs. Kavanagh and Shaw will brief the Panel. (AGMR-RDT)
3. November 7 Letter from Philip Hughes, BOB, re Cascade Power  
In staff review. (AGMP&P)
4. AEC 141/109 - Status of Proposed Unclassified Technical Briefings on Test Safety  
Approved for Commissioner Tape's further discussions with the White House and staff. (AGMMA-Rosen)
5. AEC 1282/14 - Preannouncement of Benham Event  
Approved. (AGMMA)
6. AEC 1043/11 - Cooperation with AECL in Development of Nuclear Power Reactors  
Approved. (AGMIA)

9. AEC 563/8 - U.S. - Canadian Safeguards Agreement

Noted. (AGMIA)

10. AEC 1287/1 - Correspondence on Enrichment Service Proposal by Nuclear Exchange Corporation

Noted with a revision. (EAGM)

11. AEC 580/289 - AEC Contingency Stockpile

To be rescheduled. (SECY)

12. Commissioners' Meeting with the Advisory Committee on Reactor Safeguards, Friday, December 6, 1968.

Tentatively scheduled. (SECY)

13. AEC-811/211 - Proposed Commission Meeting with Director, Bureau of Mines

A luncheon meeting will be scheduled. (SECY)

14. NTS Events (See General Giller's November 7 Memorandum)

Noted. (AGMMA)

15. AEC-R 4/57 - Establishment of Atomic Safety and Licensing Appeal Board (See also AEC-R 4/55 and 4/56; and, Mr. Hennessey's October 31 Memorandum on Separate Agency Question)

To be rescheduled. (SECY)

W. B. McCool  
Secretary

12:10 p.m.

PRESENT:

COMMISSIONERS:

Chairman Seaborg  
Commissioner Ramey  
Commissioner Tape  
Commissioner Johnson  
Commissioner Costagliola

STAFF:

Mr. Hollingsworth  
Mr. Bloch  
Mr. Brown  
Mr. Hennessey  
Mr. Abbadessa  
Mr. Rubin  
Mr. Kull  
Mr. McCool  
Mr. Quinn\*  
Dr. Kavanagh\*  
Mr. Shaw\*  
Mr. Giambusso\*  
Gen. Giller\*  
Mr. Winter\*  
Mr. Harris\*  
Mr. Kratzer\*  
Dr. Friedman\*  
Mr. Voigt\*  
Mr. Price\*  
Mr. Wells\*  
Mr. Yore\*

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Secretary

\*Attendance by Topic (s)

At 6 p.m. I attended the reception given by Battelle at the Shoreham Hotel (where I saw Fred Albaugh and Sherwood Fawcett) and that given by the AIF Public Affairs Committee and International Nuclear Public Relations Contact Group at the Shoreham.

At 7:30 p.m. I finally attended the reception for the German delegation attending the conference, hosted by Scientific Counselor and Mrs. Wolfgang Opfermann at the German Embassy. Dr. Michael Hignatsberger (of Austria) told me the AEC briefings on our nuclear fuel policy at Oak Ridge last Thursday and Friday were very successful and may have convinced many Europeans that they shouldn't build an enriching facility soon. Charles Robbins (AIF) told me about the industry feeling that the suppression by the AEC of industrial work on the gas centrifuge is counter to the American method of doing business.

Tuesday, November 12, 1968- D.C.

At 10:10 a.m. I called Don Stewart (ANL) in response to his letter of November 6th concerning a proposed Third Transplutonium Element Symposium, to be held at Argonne in the fall of 1969. I mentioned that the Welch Foundation is planning an International Conference on the Transuranium Elements which will be held in Houston, November 17-19, 1969, and suggested that the Argonne conference be put back-to-back with this conference in order to take advantage of the fact that many foreign scientists will be here at that time. We discussed the availability of scheduling November 12th, 13th, and 14th as first choice, which would be just prior to the Houston conference, or, as second choice, November 24th, 25th and 26th, which would be immediately following the Houston conference. Don will check this out and will write to let me know of their decision.

He asked me to outline what I would like for the curium and americium anniversary portions of the conference, and I said I would do that. I also said I would be willing to work with him on the invitees, and in this connection I will send him the list of those invited to the first weighing of plutonium anniversary celebration (held on September 10, 1967). He said they will have to accommodate about 75 ANL people, with an overall total of about 200. He said he would ask me to act as toastmaster and to chair the morning session. I suggested we leave that open for a while. I emphasized the importance of getting the invitation out early, as much as six months in advance of the conference. (Note: It was later decided to cancel this conference in view of the Houston symposium.)

At 10:15 a.m. Commissioners (except Johnson) and staff met with Fritz Hellwig (Vice President, Commission of European Communities), Fernand Spaak (Director-General of Energy), Felix Oboussier (Director of Supply), Mr. Reichert (Hellwig's assistant), and Kurt Heidenreich (Washington representative). We discussed the Euratom Research and Development program and policy on fast reactors, their plans for a European enrichment facility (they plan to build one), the NPT (progress is slow), safeguards on Canadian plutonium sold to France and the Franco-Italian exchange of enriched uranium-235 and plutonium, and our \$43/gm price for plutonium (they will buy very little at this price, which they resent).

At 11:20 a.m. I received a telephone call from Dr. Hughes (Indiana State University), who said that April 16, 1969 is fine for the dedication of their new Science Building, and they will plan the ceremony for about 4 p.m. I said I will be at the ACS meeting on April 15th, and there is a possibility they may also wish me to speak on the morning of April 16th. Hughes said that I would be

able to get a direct flight to Terre Haute from Chicago, and he will send me the schedules. He also said that they would arrange to meet me at the airport. He said he will write and confirm all of this information in writing.

At 11:25 a.m. we met with Sigvard Eklund (Director General, IAEA). We discussed the need to find an Inspector General for IAEA soon or the vacancy may cause the U.S. Senate to hesitate to ratify the NPT. Eklund will contact R. Rometsch (Switzerland) to see if he would accept appointment even if the Russians oppose him. We also discussed the possible appointment of Pietro (Mexico) and Giely (Austria). We discussed the need for the IAEA to come up with a model safeguards agreement for the NPT. Eklund said he would like to assign an IAEA man to work at BNL, ANL and LASL with our safeguards research people and we agreed.

At 12:30 p.m. I attended the ANS luncheon at the Sheraton-Park Hotel. I sat between John Hill (Chairman, UKAEA) and Ken Davis. Commissioner Johnson presided and John Hill gave the main address on the history and status of nuclear power. The Mark Mills Award was given to James J. Duderstadt (California Institute of Technology) and the Radiation Industry Award was given to Robert F. Nystrom by Lyle E. Packard.

At 3 p.m. I met with Horia Hulubei (Chairman of the Romanian AEC), Ion I. Purica (head of the Reactor Department, Institute of Atomic Physics, Bucharest), Marius Petrascu (head of the Laboratory of Nuclear Reactions), Nicolae Atanasiu (First Secretary, Romanian Embassy), Mel Abrahams, and Abe Friedman. We discussed Hulubei's itinerary to visit AEC installations and he invited me to visit Romania.

At 3:30 p.m. I met with Einar Saeland (Director-General, European Nuclear Energy Agency). Abe Friedman and Justin Bloom were also present. We discussed the status of ENEA projects.

At 4 p.m. Julie Rubin, Abe Friedman and I met with Friederich Hammerling (member of the Board of Directors, AEG, General Electric, Germany), Hans-Joachim Bruchner (head of AEG Atomic Energy Functions), and Arthur L. Fern (German Embassy). Hammerling opened the discussion by thanking me for the AEC cooperation with the AEG. He reviewed briefly the AEG relationship with the U.S. General Electric Company in which it was noted that GE presently has a 10% ownership in AEG. They also have a joint company for fabrication of reactor fuel.

Bruchner monopolized the remainder of the discussions. He reviewed the several German reactors operating and under construction. A few pictures were displayed of the current status of construction of their new 670 MWe reactor due for completion in 1971. Considerable pride was expressed in the Lingen reactor, which has 160 MWe nuclear and 90 MWe fossil superheat that was built entirely by AEG under a licensing arrangement with GE.

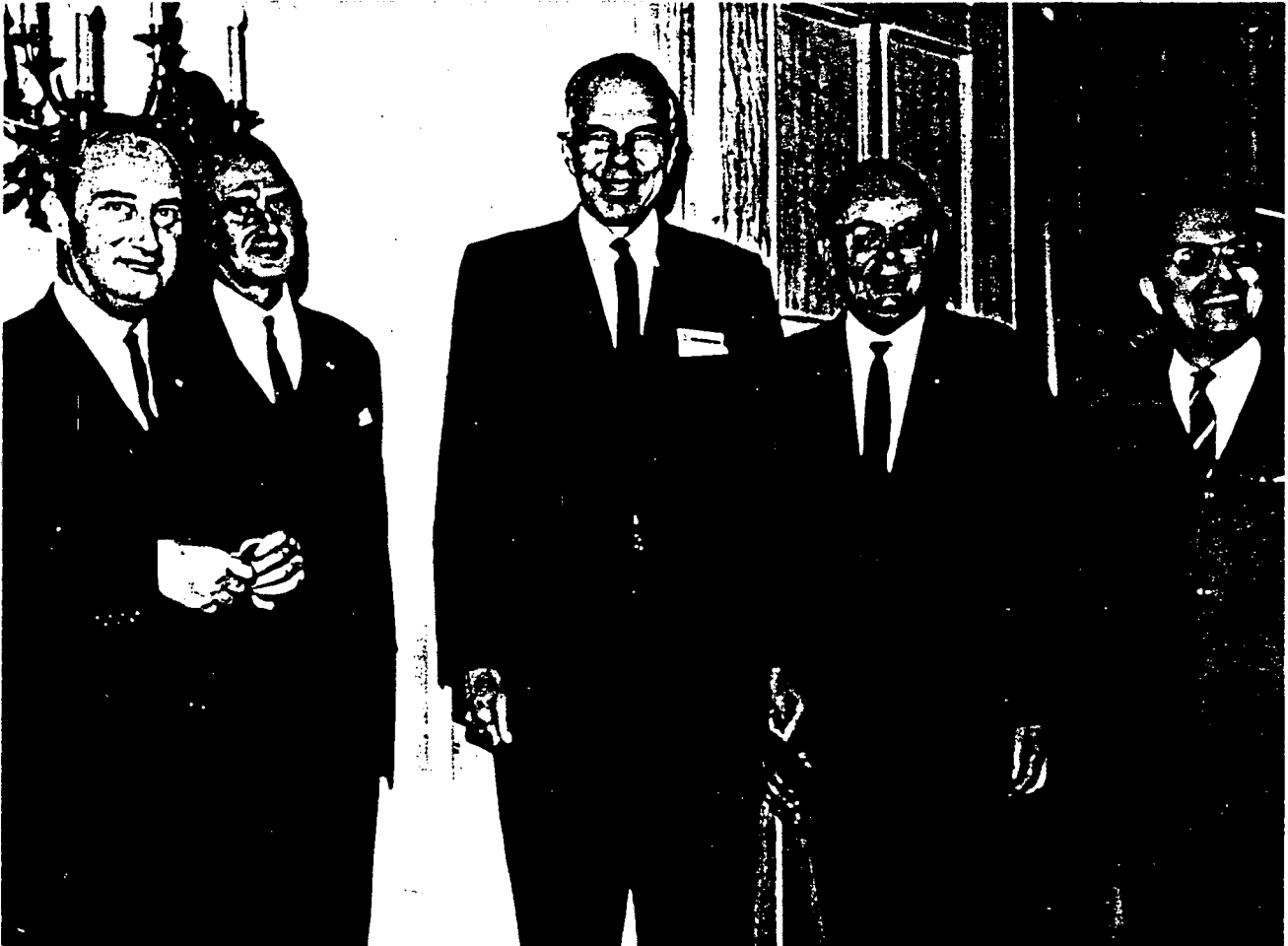
Bruchner asked that the Commission consider liberalizing our fuel supply policy. The recent announcement by Commissioner Johnson of our new policy for providing five year inventories of enriched fuel should, according to Bruchner, be extended to 15 years. His calculations show that the carrying charges of 6% even on a present worth basis would make enriched systems economical in comparison with natural uranium heavy water systems. I expressed surprise at these economics and Friedman indicated our calculations have been the basis for the five-year offer in the new policy. Nevertheless, I indicated that we would certainly consider extending the period if we receive a formal request for material beyond the existing five-year limit.

Bruchner then suggested liberalization of our tolling policy. This suggestion eventually was related to a study by FORATOM for a possible European enrichment plant. It was also tied into a statement that 40% of the electrical generation in Germany by 1980 will be nuclear. The essence of Bruchner's request for liberalizing our tolling policy was that the AEC be prepared to accept joint capital financing of an enrichment facility in Europe or some means for providing the technology so that Europe could build its own plant. I indicated we are already looking at this policy. I made it clear that the eventual treatment of the NPT would influence our policy in this area. I asked if a copy of Bruchner's FORATOM study report is available. Bruchner said it is presently under review by the 15 countries in FORATOM and promised to provide a copy as soon as it is available. The visitors thanked me for sparing the time to meet with them and expressed appreciation for my consideration of their suggestions for liberalization of AEC policy.

At 5 p.m. I presided over Commission Meeting 2353 (action summary attached). The Commissioners and staff met to discuss demands by the State of Illinois that a reverter clause be put in their transfer of land to the U.S. government for the 200 BeV Accelerator; we will resist this.

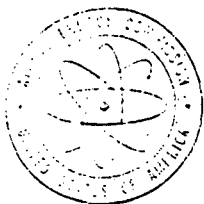
I sent my biweekly letter report to the President (copy attached).

In the evening Helen and I attended a reception at the French Embassy.



Reception at French Embassy, November 12, 1968

L to R: Bertrand Goldschmidt, Jean Renou, Seaborg, Ambassador Lucet, and Jean Dard



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

UNCL. BY DOE  
NOV 86

R. E. Hollingsworth, General Manager

November 12, 1968

Approved \_\_\_\_\_

REH

Date \_\_\_\_\_

ACTION SUMMARY OF MEETING 2353, TUESDAY, NOVEMBER 12, 1968, 5:05 P.M., ROOM 1115,  
D. C. OFFICE

SECY:EGE

Commission Business

1. Oral Report on NAL Site Acquisition

The Chairman requested the necessary background information be provided him prior to his telephone calls on this matter. (AGMO)

2. Mr. Rostow's November 8 Memorandum re Proposal on an Israeli Desalting Plant

The Commission requested comments on Mr. George D. Woods' proposal for a joint US-Israeli desalting plant be provided for consideration at the Information Meeting scheduled for Thursday, November 14, 1968. (RDT)

3. Dr. Boettcher's November 13 Briefing of the Commissioners on Comparative Economics of Advanced Reactor Concepts

The Commission noted Dr. Boettcher's possible request for access to AEC economic studies on advanced reactor systems.

Original signed by  
F. T. Hobbs

F. T. Hobbs  
Assistant Secretary

cc:

Chairman Seaborg  
Commissioner Ramey  
Commissioner Tape  
Commissioner Johnson  
Commissioner Costagliola



November 12, 1963

The President  
The White House

Dear Mr. President:

I have the pleasure of submitting the biweekly report on significant developments in the atomic energy program:

1. Selection of a construction contractor for the SURFSIDE multi-purpose nuclear plant on Long Island has been announced by the New York State Atomic and Space Development Authority. Hittman Associates of Columbia, Maryland will construct this pilot facility, which will produce one million gallons of desalted water per day, 2500 kilowatts of electricity, and radioisotopes for medical, industrial, and scientific application. Operation is scheduled for 1972. No AEC financial support is involved.
2. Possible site locations for the proposed Plowshare Ketch experiment were discussed by AEC on November 8 with the Columbia Gas System Service Corporation and state government representatives from Maryland, West Virginia, and Kentucky. Ketch would investigate the use of nuclear explosions to create underground storage for natural gas. The three states are members of the Southern Interstate Nuclear Board, which has urged both Columbia Gas and the government to consider selecting a site in one of its member states.
3. A Memorandum for Cooperation on the Peaceful Uses of Atomic Energy between AEC and the Romanian State Committee for Nuclear Energy is expected to be negotiated during a visit of the President of the Romanian Committee, Professor Horia Hulubei, to AEC on November 22. Professor Hulubei will also visit selected U.S. nuclear facilities during his stay in this country.
4. A new policy on uranium fuel enrichment services was announced by AEC at a briefing of foreign nuclear power executives in Oak Ridge on November 7. AEC is now prepared to supply requirements for enrichment

services for periods as long as five years in advance of actual needs. This policy would enable foreign countries using U.S. enrichment services to maintain adequate inventories of uranium to protect against a possible interruption in supply.

5. The Commission will be meeting this week with ranking foreign officials from several important nuclear organizations who are in Washington to attend the International Conference on Constructive Uses of Atomic Energy. Discussions are scheduled with representatives of the Commission of European Communities, the International Atomic Energy Agency, and Atomic Energy of Canada Limited.
  
6. A groundbreaking ceremony will be held for the 200 BEV National Accelerator Laboratory at the Weston site about 30 miles west of Chicago on December 1. I plan to attend the groundbreaking, which will be for the first permanent building in the laboratory research complex. Also scheduled to attend are Representative Price of Illinois, Governor Shapiro, and Norman Ramsey, who is head of Universities Research Association, an organization of 48 U.S. and Canadian universities, which will operate the laboratory for AEC. Dr. Robert R. Wilson, the laboratory director, has indicated the facility should be in operation by 1972.

Respectfully yours,

Glenn T. Seaborg

Glenn T. Seaborg

cc: Bromley Smith



Reception at French Embassy, November 12, 1968  
L to R: Helen Seaborg and Seaborg, and Ambassador and Mrs. Charles Lucet

Wednesday, November 13, 1968- D.C.

At 8:30 a.m. the Commissioners (except Ramey), Milt Shaw, Bob Hollingsworth, and Ed Bloch heard a briefing by Alfred Boettcher and H. Kraemer of the Julich Institute, Germany, on projections of types of nuclear reactors that would be most economical in Germany and the U.S. up to the year 2020. The Molten Salt Breeder and HTGR compete more favorably with the LMFBR than our AEC people project. This suggests we may be getting biased reports from our people and this should be studied anew.

At 9:40 a.m. Julie Rubin and I met with Jerome Wiesner (Massachusetts Institute of Technology) and Denis M. Robinson (High Voltage Engineering Company, Burlington, Massachusetts). Wiesner explained to me that they wanted to explore possible ways of getting started with the HILAB. Robinson recalled the last visit to discuss this subject with me was on February 4, 1966, when Dr. Van de Graaff reviewed their plans. In the interim, High Voltage has committed about \$5 million of their own money for capital equipment but are now at a point where some federal or outside support is necessary. The original time schedule for the project has slipped about six months but they still believe they are ahead of anything in the western world in providing a capability for heavy ion acceleration. There was brief mention of Flerov's work at Dubna and Robinson suggested I might wish to check with Bob Livingston at Oak Ridge about his

recent trip to Russia. Robinson emphasized that now that the Omnitron momentum appears to be well established he believes the HILAB could be used to support the Berkeley work and provide some early basic data they could eventually use. Again the early availability of the HILAB in comparison with the Omnitron was noted. Some pictures of construction progress with the HILAB and related data were handed out and briefly discussed.

Robinson admitted the HILAB would be unable to interact uranium on uranium with the present gas target system but they are looking at the possibility of developing solid strippers to achieve this objective. I noted at this point that I am convinced that it will be necessary to work with uranium on uranium to achieve results in the projected regions of relative stability. Robinson indicated their financial support required would be on the order of \$2.2 million for capital equipment plus annual operating costs in the area of \$1.4 million, starting in 1970. His stockholders are already raising questions about the amount of funds committed to date and there is a need for some clear indication of support before going much further.

I was not too encouraging about support for new capital equipment or any firm commitments for operating costs because the 1970 budget has already gone forward and we are aware of significant reductions in the research portion. Wiesner and Robinson indicated they have good enough credit to fund the project if there would be some indication of a contract with the Commission to write off the investment over a five-year period.

There was a brief discussion of the significance in terms of prestige between Russia and the U.S. for the country that makes the next major advance in discovering new elements. Wiesner suggested that I might want to be on record on the prestige issue to the Administration and the Congress, and I indicated this situation has already been communicated to a certain degree but it may be worth a new look.

I indicated that I might be in the Cambridge area on Saturday, November 23rd, for a visit with my daughter and might wish to arrange a visit to the HILAB facility during the morning before the Harvard-Yale football game. Robinson expressed pleasure at the possibility of this visit and asked to be informed of my firm travel plans so that I could be met and arrangements made for a trip to the HILAB facility. I promised to review with the AEC staff any possibility of support for the HILAB project in the 1970 budget and whether we have any flexibility in contracting for lease of the facility if High Voltage continues to supply the required capital. I was again not too encouraging and also indicated there didn't appear to be much chance of obtaining supplemental appropriations if the present budget climate prevails. (Robinson arranged to go with me to hear my "Youth and the Atom" talk.)

At 11 a.m. I spoke at the Sheraton-Park Hotel at the "Youth and Atom" program (1200 high school students picked from the Washington, D.C. area and their teachers) on the transuranium elements, with slides, followed by questions. I was introduced by Stephen R. Woodzell (President, Potomac Electric Power Company [PEPCO]). Following this, I had lunch with the group--at our table were some students and teachers, Charles Yulish (who organized the affair), Julie Rubin and Stan Schneider. After lunch I toured the Atomic Fair Exhibit with Yulish, Rubin and Brown (a fair official). We were joined by Helen and Mrs. Sigvard Eklund. Many pictures were taken, including those of numerous students.

At 2:20 p.m. I returned to the office and called Illinois Governor Shapiro and Representative Melvin Price to protest the demand by the Illinois Attorney General's office that there be a reverter clause in the tender of the land for

the 200 BeV Accelerator. Shapiro said that he would look into it.

At 4:15 p.m. Justin Bloom and I met with George E. Mueller (NASA). Mueller explained the status of and schedules for NASA's impending lunar missions. The next flight, Apollo 8 (also known as C), will be unmanned and will orbit the moon in December. Pictures from an altitude of 50,000 feet will be taken. The next flight, Apollo 9 (also known as D), will be a low earth orbit to check the lunar module. Photographs of the earth will be taken. If Apollo 7 is considered to have had a risk value of one, then the D mission is considered to have a risk value of two, and the ultimate lunar landing, a risk value of four to five. The next following lunar flight will be Apollo 10 (the F mission), either around the moon or in a very high earth orbit. Then Apollo 11 will be the lunar landing now scheduled for June or July 1969 and perhaps as early as May. It is possible that two or three additional lunar landings will be accomplished after Apollo 11 in CY 1969.

In Apollo 11 the astronauts' schedule is set at 17 hours of work on the moon, of which two hours will be devoted to extra-vehicular activity (EVA). There will be seven hours of sleep and ten hours of work, much of which will be in preparation for the return to lunar orbit. This schedule does not permit the emplacement of the ALSEP package because of concern that the astronauts will be over-worked and, therefore, only two simple scientific experiments will be conducted on the first landing--a small seismometer will be emplaced and left on the moon and soil samples will be taken. The decision has therefore been made to carry out the ALSEP mission on the second lunar landing when a better definition of astronaut workload will be possible and to use two isotopic heaters to keep warm the seismometer instrumentation on the first lunar landing (Apollo 11). I made it clear to Mueller that the AEC would need a special request from NASA to provide small isotopic heaters for use on the first lunar landing and that details as to specifications and reimbursement of cost to the AEC would have to be worked out. Mueller left with me a letter confirming the delay in the ALSEP mission and requesting the AEC assistance in providing the heaters. Mueller informed me that the next Apollo launch will be on December 21st at 7:45 a.m. and invited me to observe the launch.

At 5:30 p.m. I called H. R. Haldeman (newly appointed Assistant to President-Elect Nixon). I reached Haldeman at the Nixon headquarters in New York at the Hotel Pierre and told him that there will probably be a report in a small paper in the South that I am resigning. I wanted to tell him that I have not talked to any reporters and that this is purely speculation. In fact, I am simply assuming a posture of "no comment." He said he appreciated my calling, and he will pass this on to Mr. Nixon.

I wrote Lynne and Bill to tell them that I have obtained three tickets for the Harvard-Yale football game for Saturday, November 23rd, and that I will arrive on a plane the night before.

At 6:30 p.m. Helen and I attended the ANS-AIF Joint Banquet at the Shoreham Hotel. I sat at the head table between Sigvard Eklund and Inouye (Japan). About 1,200 were present and it was a very impressive evening. Karl Cohen presided and Sherman Knapp (new President of AIF) introduced Representative Craig Hosmer, the speaker. Craig described some plans concerning the future of the AEC in the Nixon Administration (future of diffusion plants, possible changes in regulatory organization, need to reform role of ACRS, practical value, Aiken-Kennedy Bill, thermal pollution, and NPT). He supported NPT (for

the first time), but stated the IAEA needed more money to do the job. Hosmer alluded to the fact that I should remain as Chairman of the Atomic Energy Commission as a challenge since the Nixon Administration would be above partisan politics.

Thursday, November 14, 1968- D.C.

At 9 a.m. the Commissioners (except Ramey), Bob Hollingsworth, Abe Friedman, Myron Kratzer, and others met with officials of Atomic Energy of Canada Limited (AECL)--J. L. Gray (President), W. B. Lewis (Senior Vice President, Science), L. R. Haywood (Vice President, CRNL), A. J. Mooradian (Managing Director, WNRE), D. A. Golden (member, Board of Directors), C. A. Grinyer (member, Board of Directors), H. G. Thode (member, Board of Directors), and W. D. Carrothers (Chief, International Affairs). Angelo Giambusso gave a briefing on the U.S. reactor program (light water) and Tardiff on the LMFBR program. Gray, Haywood,

Lewis and Mooradian spoke on the Canadian reactor and research program. AECL has entered the field of marketing heavy water power reactors. Haywood spoke on Canadian aspects of the AEC/AECL Cooperative Program, and Abe Friedman spoke on the U.S. aspect. We offered to give them information on our fast breeder program. Gray spoke on Canadian heavy water supply and demand. Paul McDaniel reviewed the status of the 200 BeV Accelerator and the Meson Facility. We discussed the changing environment of science in North America.

I hosted a lunch at 12:30 p.m. in the Pitcairn Room of the Mayflower Hotel for the Canadian group. Present were Gray, Golden, Grinyer, Thode, Lewis, Haywood, Mooradian, Carrothers, Commissioners Ramey, Johnson, and Costagliola, Julie Rubin, Bob Hollingsworth, Ed Bloch, Howard Brown, George Quinn, Myron Kratzer, Spoff English, Abe Friedman, Milt Shaw, Angelo Giambusso, John Burke, and Robert Ramséy (USAEC representative to Chalk River).

Commissioner Ramey and I placed a conference call to Henry J. Mills and Joseph Jensen of the Metropolitan Water District of Southern California at 2:30 p.m. Mills said that he and Jensen (and they had others in the room with them) wanted to talk to us via this conference call regarding the MWD project. A feasibility report was prepared by Bechtel, which was then studied by MWD's Nuclear Power and Desalting Advisory Committee, headed up by Mr. Farquhar. The Committee agreed with Bechtel's finding that it would be too expensive to transport water from either of the two Camp Pendleton sites which were proposed as Bolsa Island alternatives by Southern California Edison and Los Angeles Department of Water and Power. Therefore, the recommendation of the Committee is that MWD go back to the original concept of a dual nuclear power/desalting project without coparticipation by other utilities, and on a postponed time scale.

MWD would plan to start construction, etc., about 1975, with nuclear power (and desalting) on the line not later than 1980. To be sure that the necessary land is still available "when the time is propitious" and in order to assure independence from other groups, they are purchasing the land for \$5 million to \$6 million, along with the necessary equipment and right-of-way. I asked what they would be doing between now and 1975, and Mills replied, "talking to you and heckling." Ramey asked whether they wouldn't be encouraging us to get some experience some place, and Mills said they would have to admit that. They realize, of course, that the AEC may not have the necessary funds at the time when they are ready. The recommendation for the Bolsa Island (or substitute project) on a postponed basis, will be presented to the MWD Board for vote on Tuesday, November 19th. They are confident it will be accepted.

I asked whether they couldn't wait until the new administration has had a look at this. Mills replied that the contract deadline between MWD and the government is December 31st. Jensen stated quite firmly that he felt he knew the disposition of the Board and he just didn't think it would go for anything other than the above recommendation. We asked whether the other parties have been advised. Jensen said he had a meeting this month with Quinn and four directors of Los Angeles Water and Power; Quinn accepted the facts and agreed to support postponement. Jensen assumes that Quinn told the Mayor; however, Jensen said he would personally see that the Mayor is notified. Bill Gould of Southern California Edison is also agreeable.

Ramey and I strongly urged that the decision on postponement be put off for a while, at least until the next Board meeting (which Jensen said would be December 10th.) Jensen said they would like to think about this among themselves for a while, and he would be back in touch with us in an hour or an hour and a half. I also said that this is so important it should not be debated on the phone but rather in a face-to-face meeting. Mills said it would be

useless to try to swing their sentiment to either of the other two places, etc. However, he will advocate postponing the vote until the December 10th meeting, and he agreed to meet with the Commission in the interim (this was later set up for 2 p.m. on December 2nd in Washington, D.C.).

I met briefly with the visiting French CEA group led by Bertrand Goldschmidt--one of a planned regular set of meetings between the USAEC and CEA staffs.

At 3 p.m. I presided over Information Meeting 848 (notes attached).

At 4:45 p.m. I presided over Regulatory Information Meeting 319 (notes attached).

At 5:20 p.m. I received a telephone call from Don Stewart (ANL). Don said that they are dubious about having two symposia (Welch Foundation and ANL) that overlap so closely in subject matter. Also, the budget is tight and this might preclude some people from going both to Houston and to Chicago. Therefore, they lean toward postponing the ANL one for one or one and a half years. Another event, of course, would commemorate the discovery of both americium and curium. I said I would work on this, and would try to find a significant date. I said I supposed Chicago would be the best place. Don did, however, raise the question of whether it should be at the University of Chicago or at Argonne. Also, when it's decided to go ahead, Don would like some guidance on the type of program that should be planned.

At 6:30 p.m. Helen and I, together with Mr. and Mrs. Eugene Rostow, hosted an AEC-State reception in the Jefferson Room of the State Department (eighth floor) for the attendees at the AIF-ANS International Conference on the Constructive Uses of Nuclear Energy. About 700 attended and went through the reception line.

#### Friday, November 15, 1968- D. C.- Pittsburgh

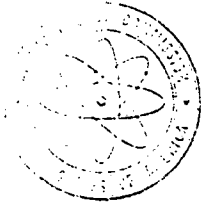
I flew to Pittsburgh with Stan Schneider on Northwest Flight No. 305, leaving Washington at 8 a.m. and arriving at 9 a.m. We were met by Patricia French (Director of Special Activities at Duquesne University) and rode in a University car with her to Duquesne. Here we met President Henry J. McAnulty and visited his offices and other areas of the university administration.

We then went to Rockwell Hall, where I met the other participants in the dedication and convocation program for the Richard King Mellon Hall of Science and we donned our academic garb. We went in academic procession to Peter Mills Auditorium. The convocation began at 11 a.m., presided over by John S. Ruggiero (Dean of the School of Pharmacy). Joseph Hughes (Administrative Trustee, Richard King Mellon Charitable Trust) presented the key to the building to President McAnulty. Herbert H. Petit (Acting Academic Vice President) presented to President McAnulty for conferring of honorary degrees a relative representative of Ludwig Mies van der Rohe, Fred Seitz, and me.

Following the conferring of honorary degrees, I gave the address on "Toward a New Scientific Era." (The speech was later published in the February 1, 1969 issue of "Vital Speeches of the Day" along with Richard Nixon's Inaugural Address and Lyndon Johnson's State of the Union Address.)

Following the academic recessional we went to the Duquesne Union Ballroom where Seitz and I participated in a press conference consisting of an interview on the NPT and the health effects of fallout by Stuart Brown of Channel 2.





UNITED STATES  
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NOV 66

COPY NO. \_\_\_\_\_  
November 14, 1968

INFORMATION MEETING 848

3:00 P.M., Thursday, November 14, 1968, Chairman's Conference Room, D. C.

1. MND Project Status

The Chairman and Commissioner Ramey reported briefly on telephone calls from MND.

2. Chairman Seaborg's Appointment with Governor Edward T. Breathitt, Federal Representative, Southern Interstate Nuclear Board, 9:30 a.m., November 18, 1968

The Chairman noted Governor Breathitt would be accompanied by Robert Gifford and invited the Commissioners to participate if they so desired.

3. Agenda for the Week of November 18, 1968

Approved as revised. (SECY)

4. Fermi Award Ceremony and Reception, December 2

The Commissioners noted invitations for the White House ceremony at 5 p.m. and the reception at the John Quincy Adams Room of the Department of State at 6 p.m. would be issued this weekend by the Secretariat following receipt of the Commissioners' comments on the guest list currently under review in the Commissioners' offices. Arrangements for an alternate location are being made for use if developments require. (SECY)

5. NEE Events (See General Giller's November 14 Memorandum)

Noted. (AGMMA)

6. Executive Session

a. Personnel Items

Noted.

b. TVA Power Contract

6. Executive Session (Cont'd)

c. European Centrifuge Developments

d. NATO Security

7. Chairman's Report on BOB Mark-Up of NASA Rover Program

Commissioner Johnson's Report on Conversations re Transfer of Gaseous Diffusion Plants to Private Enterprise

8. AGC 1159/9 - Proposed Reply to Walt Rostow re Israeli Desalting Project

Approved as revised, the letter to be addressed to Secretary Rusk with a copy to Mr. Rostow with an appropriate covering note. (AGMIA)

9. AGC 1192/67 - Procurement of Machine Tools for New Weapons Production Capabilities Project - Y-12 Plant

Noted.

10. AGC 1197/2 - Central Station Power

Noted.

11. Pending Contractual Matters Report No. 283.

Noted. (PAR)

12. AGC 544/88 - Radiation Standards for Uranium Miners

Approved as revised. (RM)

13. Commissioner Rarav's Report on Telephone Conversation with Mr. Henry Mills, MND, November 14, 1968

14. AGC 547/145 - U.S./U.K. Program of Cooperation

Approved. (AGCMA)

15. AGC 517/23 - Bio-Med Contract with UCLA

The Commissioners approved the General Manager's proposal to continue extensions until discussions with Mr. Holifield could be arranged, and requested that Mr. Bolton and the JCAE staff be informed. (AGMRD)

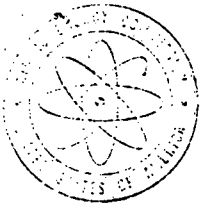
16. SAFETY Site Acquisition

The Commissioners agreed the State of Illinois should be advised that notice of proceed will not be issued until the converter question is resolved. (AGMO)

F. T. Hobbs  
Acting Secretary

4:40 p.m.





UNITED STATES  
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WASHINGTON, D.C. 20545

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NOV 86

REGULATORY INFORMATION MEETING 319

4:45 p.m., Thursday, November 14, 1968, Chairman's Conference Room, D. C.

1. Mr. Price's November 13 Memorandum re Consolidated Edison Company of New York, Inc., Request for Exemption from 10 CFR 50.10(b)

Approved. (ADRA)

2. Mr. Price's November 13 Memorandum re Commonwealth Edison Company Second Request for Exemption from 10 CFR 50.10(b)

Approved. (ADRA)

3. AEC-R 157/5 - Staff's Comments on OPED's Provisional Construction Permit for Fort Calhoun Station No. 1

The Commissioners directed the Solicitor to prepare an appropriate order for consideration. (Solicitor)

4. Proposed Meeting Involving the ACES with Representatives of Stockholm Electric Authority (Oral)

The Commissioners noted Mr. Price's report that no action would be taken.

5. Mr. Price's Meeting with Pacific Power and Light Representatives November 14

Noted.

6. Mr. Price's Meeting with El Paso Gas Representatives November 15

Noted.

7. Elk River Reactor

Mr. Price reported location of leak.

8. Commissioner Ramey's Conversation with Mr. Whiting of Dow Chemical.

F. T. Hobbs  
Acting Secretary

5:00 p.m.

10-1-68

COMMISSIONERS:

Commissioner Seaborg  
Commissioner Ramey  
Commissioner Johnson  
Commissioner Costagliola

STAFF

Mr. Price  
Mr. Hennessey  
Mr. Wells  
Mr. Morris  
Mr. Yore  
Mr. Rowden  
Mr. Hobbs

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Commissioners  
General Manager  
Dir/Regulation  
General Counsel  
Secretary

We then went to lunch. I sat next to Reverend J. Gerald Walsh (Chairman of the Board of Directors of Duquesne) and Ruggiero. After lunch Ruggiero and McAnulty spoke extremely briefly. I met and talked to Mr. and Mrs. Jones--Doris Jones worked with Nelson Garden and Joel Hildebrand at Berkeley before the Joneses left 20 years ago.

Schneider and I rode with Seitz and Bob Maurer (University of Illinois) to the airport. Schneider, Seitz and I flew back to Washington on Northwest Flight No. 338, leaving Pittsburgh at 3:15 p.m. and arriving in Washington about 4:10 p.m. Seitz and I discussed possible candidates for the post of Science Advisor to President Nixon, such as Norman Ramsey, Charles Townes, Charles Schlichter, William Hewlett, and Sy Ramo.

I arrived at the D.C. office at 4:35 p.m. and signed letters, read papers, etc.

#### Saturday, November 16, 1968- D.C.

I worked in the D.C. office until noon. Justin Bloom and I had lunch in the Paramount restaurant on H Street between I and K Streets.

Steve, Eric, and I played 12 holes of golf at the Chevy Chase Club.

I worked on my talk, "The Four Horsemen of Progress," to be given at the annual Gold Key dinner sponsored by Nova University on November 24, 1968.

#### Sunday, November 17, 1968

Steve, Eric, and Eric's friend Joe Canary went to D. C. Stadium to see the Washington Redskins play the Dallas Cowboys. The Cowboys won, 44-24.

I read AEC papers.

Helen was sick with a cold today and yesterday so the kids and I had to prepare our meals. I picked up tonight's dinner at the Connecticut Avenue and Yuma Street Hot Shoppes.

As this was Eric's birthday (his 14th) we bought a cake and had a little observance of the event, and we gave him a small present.

#### Monday, November 18, 1968- D.C.

At 9:40 a.m. Commissioner Johnson, Julie Rubin and I met with Governor Breathitt (Federal Representative to the Southern Interstate Board [SINB]) and Robert Gifford (SINB). Governor Breathitt opened the meeting by a casual remark to me that our mutual friend, Jack Oswald, had moved from the presidency of the University of Kentucky and that he would be hard to replace.

Breathitt then advised that he would be submitting his resignation to the President-Elect on January 20, 1969, as he believes the position requires someone to coordinate activities between the SINB region and the major government operations in Washington. As such, the person occupying his position should be one selected by the new administration. I indicated that I understood Governor Breathitt's position but would consult with him further if I determined any contrary action might be appropriate. Governor Breathitt indicated that he desires to be effective in carrying on the normal duties of the position until a 435

replacement is designated and requested my views on any activities in which he should be involved. I indicated Bob Gifford probably has a number of programs of possible interest to the Commission and suggested he might wish to review them.

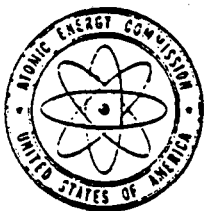
Gifford briefly reviewed a number of items that are identified herewith (a) invitation to Puerto Rico and the Virgin Islands to join SINB; b) the Nuplex concept and a possible feasibility study for its application in the southeast--a schematic and conceptual plan was distributed by Gifford; (c) financing nuclear projects--a possible meeting to be worked out with Oak Ridge to educate southern bankers in industrial progress of nuclear energy; (d) a possible bio-medical conference on liquid centrifuges; (e) a study with NSF on the role of the state and regional governments in science and technology; (f) state technical service programs; (g) central recordkeeping for radiation workers; (h) the isotope information center study at Oak Ridge; and (i) possible location of Project Ketch in the southeast.

There was considerable amplification of the item on a Nuplex study for the southeast. I asked how they plan to finance the study and Gifford stated that they are looking for AEC support. Breathitt indicated he is meeting with the Carnegie Foundation people, on which board he served, to seek possible partial financial support for this project. I asked where such a project might be located and Gifford indicated this would be one of the purposes of the study. They have in mind a possible project related to recovery of phosphates in Florida, exploiting clay deposits in Georgia and iron deposits in Alabama and possible treatment of brackish water in the Brownsville, Texas, area. I was not too encouraging about AEC financing such a project and mentioned some past opposition to AEC financing projects for a specific region. Gifford alluded to this study being as justified as one for Israel or Puerto Rico since it represents an area involving about one-third of the states in the U.S.

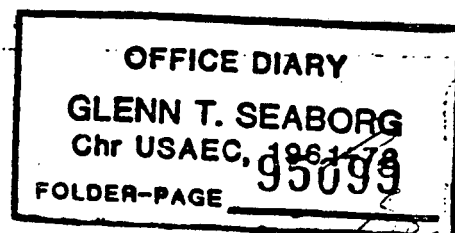
Gifford also offered some gratuitous comments on the central recordkeeping for radiation workers item in which he identified some of the problems of the states. He indicated the states are concerned about possible eventual premium pay to this group of workers that might result from such recordkeeping. Also, the existence of such records would inevitably result in their becoming involved in litigation of workmen compensation cases. A third concern was the administrative expense burden of maintaining the system and its possible drag on the industry. Just prior to conclusion of the discussions Gifford and Governor Breathitt indicated they would appreciate Commission help in their contacting Puerto Rico and the Virgin Islands to seek their affiliation with SINB. The assistance requested of the Commission appeared to be to the educational centers and the other government organizations with which we have done business to obtain their support for the SINB objectives.

At 11:20 a.m. I presided over Information Meeting 849 (notes attached). At the Information Meeting we decided on a public information program for BENHAM, the next high yield underground nuclear weapons test in Nevada scheduled for December 17th. This is for the purpose of blunting the expected opposition to it on the (erroneous) basis of safety. Ramey opposes such an information program but the others of us feel that the reaction will be worse if we are not responsive to the requests for information--our briefings should show that the fears for safety are not well-founded.

At 12:30 p.m. I had lunch in the Metropolitan Club with Congressman Craig Hosmer. Hosmer began our conversation by saying he hopes I didn't mind his statement at the press conference last week that he hoped I would stay on as Chairman of the Atomic Energy Commission. He said he has passed on this same



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COPY NO.     2      
November 18, 1968

INFORMATION MEETING 849

11:20 a.m., Monday, November 18, 1968, Chairman's Conference Room, D. C.

1. Plutonium Price

The Commissioners noted staff was developing possible alternative approaches for consideration. (AGMIA)

2. Commissioner Johnson's Conversations with Bill England, JCAE, November 15 on Bio-Med Contract with UCLA

The General Manager reported Dr. English had had a request for further discussions with the Joint Committee staff. (AGMRD)

3. AEC 1298 - Joint Study on Water Resources in the West, and AEC 1298/1 - Utah Desalting Study, 1968

Approved. (RDT/Ryan)

4. Commissioner Johnson's Report on Dr. Pretsch's paper, "Trends of Development in German Nuclear Energy Industry," Delivered at AIF-ANS Meeting November 15

5. AEC 1282/17 - Execution Data for a Portion of the Bowline II Events

Approved. In response to Commissioner Johnson's question, staff will provide more extensive rationale for test programs with each quarterly request for programmatic approval. (AGMMA)

6. AEC 141/112 - Status of Proposed Unclassified Technical Briefings on Test Safety, and AEC 141/113 - Proposed Public Information Actions for Benham

Approved. (AGMMA/PI)

Noting Commissioner Tape's elaboration on staff's report that the Hornig Panel Report was expected to be released too late and be too inconclusive to assist directly in the AEC objective, the Commissioners agreed staff should proceed with arrangements for the Technical Briefings rather than deferring them until January as preferred earlier by the Commission. Mr. Brown

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AUTHORITY: DOE-DPC  
BY R.G. BOGER DATE 7/11/86



6. AEC 141/112 - Status of Proposed Unclassified Technical Briefings on Test Safety, and AEC 141/113 - Proposed Public Information Actions for Benham  
 -(CONT'D)

reported Commissioner Ramey's concern that technical briefings prior to Benham would invite criticism and possibly delay and he therefore believed that the Commission should hold to the preferred alternative of January briefings. While agreeing in principle, the Commissioners noted that circumstances had changed since the last discussion. Chairman Seaborg stressed the fact that advanced technical briefings would almost certainly result in criticism and in a build-up of opposition. On the other hand we would probably never know what problems a deferral of the briefings might bring; however, the consensus was that the risks of not communicating with the Governors and the civic leaders and the public could have even more deleterious consequences. Dr. Tape summed up the matter by saying it was not a black or white situation but that on balance, advance technical briefings seemed to be the prudent course.

7. AEC 1123/10 - Draft REECO Letter Concerning REECO/EG&G Diversification in Southern Nevada

Approved. (DC)

8. Commissioner Tape's Report on BOB Meeting on Artificial Heart Program, November 18

9. Mr. A. E. Schubert's, GE, Letter of November 1 to Mr. Hosmer re State of AEC Regulatory Program

Commissioner Johnson requested a Commission review of this matter with the Director of Regulation be scheduled. (DR/SECY)

10. Commissioner Costagliola's Trip to Atomics International and Air Research, November 19, and ANL, November 20

11. AEC-R 39/15 - Amendments to 10 CFR Part 71 - Packaging of Radioactive Material for Transport

The Commissioners noted Mr. Price's request for early consideration facilitating Federal Register publication December 1; the Chairman suggested review by the Commissioners as a possible consent item. (Griffin/Helfrich/Rosen/Ryan/Rubin/SECY)

12. 200 BEV Site Acquisition

*Secretariat notified of  
 Chairman's consent 11/18/68*

Mr. Erlwine reviewed the latest developments on the request of the State of Illinois for reverter rights in the 200 BEV site. The Commission gave the

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**GLENN T. SEABORG**  
 Chr USAEC, 1961-72  
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17. 200 BEV Site Acquisition - (CONT'D)

following guidance for the discussions to be held with State of Illinois, Department of Justice and AEC representatives this week: (1) If Justice takes a hard line against any form of reverter and the State will accept this, then AEC should accept this position and conclude matters on this basis; (2) If the State of Illinois will not accept (1) then AEC could propose giving Illinois a reverter agreement that would terminate when, in AEC's judgment, the 200 BEV Project is substantially completed; and (3) AEC should strongly oppose giving Illinois any reverter rights that would be effective after the facility is completed. (AGMD)

18. General Manager's Report on AECL Visit to Oak Ridge November 15.

F. T. Hobbs  
 Acting Secretary

12:20 p.m.

PRESENT:

COMMISSIONERS:

Chairman Seaborg  
 Commissioner Tape  
 Commissioner Johnson  
 Commissioner Costagliola

STAFF:

Mr. Hollingsworth  
 Mr. Bloch  
 Mr. Brown  
 Mr. Rubin  
 Mr. Ryan  
 Mr. Kull  
 Mr. Parks  
 Mr. Winter\*  
 Mr. Tesche\*  
 Mr. Cannon\*  
 Mr. Stokeley\*  
 Mr. Erlewine\*  
 Mr. Reich\*  
 Mr. Hobbs

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 General Counsel  
 Secretary

Attendance by Topic(s)

thought through Nixon aides Rosemary Woods and Bruce Harlow. I indicated an interest, if it should be true, as he (Hosmer) has predicted, that the first year of the Nixon administration would be as exciting as the first years of the Kennedy administration. I did mention that I think the Chairman of the AEC could serve the president better if he were more involved with the National Security Council, and Hosmer agreed.

We then went on to talk about federal support of science and higher education. I indicated that the recent cut of support funds, especially by the National Science Foundation, has hit universities very hard. In fact, many have been forced to drop graduate students and research assistants, and even faculty. I said I think it would be good for the universities and also for Mr. Nixon from the standpoint of improving his relations with the scientific community, if he could reverse this curtailment of funds, and even make up the needed funds in a supplementary appropriation when he comes into office. Also, I think it would be good if Nixon could evolve a more permanent support machinery. I mentioned, for example, that he might consider having the vice president serve as Chairman of the Federal Council for Science and Technology. I said I would be glad to prepare a memorandum for Mr. Nixon, describing my views on the support of science and organization for this support, at the proper time. Hosmer seemed to think that this might be useful at some later time.

Hosmer raised the question of who might be the Science Adviser to the President, saying he thinks this is a very important matter. He said he had read the article in yesterday's Washington Post regarding the opposition among scientists to Bill Libby for this post. I said I don't want to take any side on that issue since I have known Libby practically since student days. However, in response to Hosmer's request for suggestions for names for this position, I suggested Norman Ramsey, Manne Piore, Sy Ramo, William Hewlett, and Charles Townes.

We talked about the future of the gaseous diffusion plants and I indicated that I favor a course which is closer to private operation than that favored by other AEC staff and the other Commissioners. I said that one of the reasons for the Commission's delay in announcing a policy here is my refusal to go along with a government-corporation type of operation, which is very little different from the present AEC operation. I said I think some kind of corporation, regulated by government, which included both government and private members of the board, would probably be the best compromise.

I told him about the problem we are having with Howard Hughes and others on the question of safety of our underground testing of high yield nuclear weapons in Nevada. I said we are going to have some public briefings on this prior to the forthcoming BENHAM test in order to try to create a better climate of public opinion here. I indicated that I think this is a matter that the new president will have to make a decision on very soon after he takes office. I told him that a number of our problems arise from the tendency of the Bureau of the Budget to make decisions solely on a money-making basis, and it will be important for the new president to make his policies known to the BOB, or otherwise the same restrictions will continue to apply in the new administration.

I described our problems in keeping the production reactors operating, stating that the BOB is pressing to shut down even more reactors beyond the presently operating seven. I said this wouldn't leave a sufficient amount of contingency plutonium for the weapons program, and especially, it would prevent the development of the Savannah River reactors to produce such interesting new products of the future as californium-252. I described the future potential uses of californium-252.

We discussed the present secrecy restrictions on the gaseous diffusion process for enriching uranium, and agreed that the time has come when these might be relaxed somewhat in the interest of cooperating with European countries so that we might influence this development of any enrichment capability. Similarly, we discussed the security arrangement on the development of the gas centrifuge and agreed that the restrictions we have applied to American industry probably are unwarranted and should be relaxed. I urged him to visit the Garrett Corporation in Hawthorne, California, to get a first-hand view of our development work there, and he indicated that he would do so. We also discussed the present restriction on information for the development of nuclear submarines, and agreed that the time has probably come when we might cooperate with NATO countries in order to lessen the load on the U.S., perhaps by selling nuclear submarines to these countries. We think that Rickover's posture of continuing to try to hold this information from our NATO allies might, in the context of 1968, best be changed, and conjectured that Rickover might soon be amendable to this. In this connection, I mentioned such items as our refusal to furnish enriched uranium-235 to the Italians, which has only resulted in their obtaining the material from the French.

Hosmer agreed that he thinks Harry Smyth should be retained in his post as U.S. Ambassador to the IAEA, and that he might pass on this word to the Nixon administration. I told him I am worried about getting sufficient funding in the FY 1970 budget to keep the 200 BeV Accelerator on its schedule for completion by summer of 1972, indicating that if we fail to do so we might lose the services of Bob Wilson, which would be disastrous. Hosmer indicated that he would bear this in mind.

I also indicated the importance of building the Omnitron in order to stay abreast with the Soviet scientists, Flerov, et al., at the Dubna Laboratory. I said that they have a tremendous effort under way and if they are allowed to break out in front of this field, they will discover most of the new heavy transuranium elements and apply Soviet names to them, a process that will lend as much prestige to Soviet science as does the space program to U.S. and Soviet science. I described the region of stability around the element with atomic number 114 and the optimistic prospects for the synthesis of elements in this region, but said it would require a machine like the Omnitron to do this.

He brought up the question of his speech at the AIF dinner last week because he sensed that it has created a stir. I said that the German, Joachim Pretsch, had answered him at the ANS luncheon last Friday (November 15th) stating that he was extremely surprised that Hosmer had suggested that the U.S. offer to place U.S. nuclear power plants under IAEA safeguards was a mistake. I told Hosmer that this has created such a stir that it would probably be necessary for Mr. Nixon to clarify this issue after he assumes office. Hosmer reiterated that he is basically for the NPT, or at least he feels that it would do no harm, but that it would have to have a strong and meaningful safeguards provision.

Since Hosmer brought up the fact that he had talked to University of California Vice President Earl Bolton this morning, I mentioned the problem of the UCLA biomedical program. I described how the issue of Dr. Lehman's release from the program had led England and Radcliffe (JCAE staff) to make certain demands which were untenable. These were that the AEC should have the right to demand the release of the biomedical laboratory director at any time and should demand that nonacademic members of the laboratory should have privileges similar to those of the professorial people at UCLA. I said that these were untenable and very naive demands. We also discussed certain other problems concerning the staff of the JCAE that have arisen as a result of the departure of such able men as John 41  
Conway and Jack Rosen.

At 2:25 p.m. I met with John Canaday and Earl Bolton to discuss University of California problems.

I received a note from Walt Rostow, saying the President has approved the execution of the Plowshare excavation shot SCHOONER, to be fired sometime after November 21st.

John Canaday and Earl Bolton accompanied me to a reception given at 6:30 p.m. by Brazilian Minister and Mrs. Jorge de Sa Almeida at the Brazilian Embassy in honor of General Jose Costa Cavalcanti (Minister of Mines and Energy), Professor Hervasio de Carvalho (Member, Brazilian CNEN), Mr. Moacyr (Director General, National Department of Mineral Production), Mr. Cotrim (President of FURNAS), and Lieutenant Colonel Oliva (Brazilian National Security Council staff).

At 7:30 p.m. I had dinner with Canaday and Bolton at Sans Souci.

Tuesday, November 19, 1968- D.C.

At 10 a.m. in my office I met with General Jose Costa Cavalcanti (Minister of Mines and Energy), Hervasio Guimaraes de Carvalho (Member, Brazilian CNERN), John Reginaldo Cotrim (President of FURNAS, Brazilian Utility Co.), Athos S. Ramos (Scientific Attaché), Neil Seidman (State Department interpreter), Robert Wilcox (AEC Representative in Brazil), Myron Kratzer, William Yeomans, Julius Rubin, and Allan Dalton. We discussed Brazil's plans to acquire a 500 MWe nuclear power reactor. They have visited Germany, France, England and Canada, and now will visit many nuclear facilities in the U.S., in order to obtain information to help them decide what type they will buy.

Cavalcanti stated that Brazil doubles its electric capacity every seven years; that the installed capacity is now about 9,000,000 Kw; that the South Central (S-C) region now has an integrated grid of about 6,000,000 Kw; that a 500 MW reactor would fit into the S-C region, and that \$600 million is to be spent every year on power in Brazil. He added that FURNAS will operate the reactor which will be installed in the S-C region.

John Cotrim stated that for conventional systems 70% of the equipment can be manufactured in Brazil but for a nuclear system 100% would have to be imported, therefore the S-C reactor package will be divided into two parts--the nuclear which will include the reactor and its fuel, and the conventional. The Brazilians will separate the nuclear order from the conventional. He added that Brazil must decide soon on the type of reactor which they will consider; it must make economic and technical sense. There will be some internal political problems, therefore, they will insist on reactor reliability.

In response to a question on the effect of custom duties on the price of reactors raised by Cotrim, Kratzer replied that U.S. firms could purchase reactors abroad if they wished; that 15% to 20% of the price would be customs duty for importing the reactors into the U.S. but customs duties would not really be a significant problem since many of the components would be manufactured in the U.S. anyhow; therefore U.S. firms made their decisions on the type of reactor to purchase on the basis of the best available system.

Carvalho asked if the Agreement for Cooperation could be changed from a research-type to a power-type agreement; if Brazil could purchase fuel five years in advance of their need, and if the USAEC could supply lithium-7 in connection with their interest in the MSR. Carvalho received affirmative replies to each of his questions.

Carvalho stated that Brazil will need assistance in training their personnel for power reactor operations, and asked if the U.S. could assist in this regard. Kratzer and I replied that we would explore this but that Brazil also should insist that as a part of their reactor purchase contract the reactor supplier be required to provide the training required for the successful operation of the reactor.

Carvalho also stated that Brazil is far behind on the question of licensing power stations and asked if the U.S. could assist in this regard. Kratzer responded that we could assist in this question and that we would be glad to review with them our experience in this country.

At 12:30 p.m. I hosted a luncheon at the Washington Hilton for the Cavalcanti group. Present were Cavalcanti, Carvalho, Moacyr, Cotrim, Lieutenant Colonel Osvaldo Muniz Oliva, Sa Almeida, Ramos, and Congressmen Hosmer and Anderson, George Murphy, Bill England, Donovan Zook, Max White (Bureau of Mines), Commissioners Tape and Johnson, Ed Bloch, Myron Kratzer, Julie Rubin, Abe Friedman, Allan Labowitz, John Kelly, R. L. Faulkner, Milt Shaw, William Yeomans, Allan Dalton, and Robert Wilcox. I made some brief remarks emphasizing Brazil-U.S. cooperation, our many visits to each other's countries, including my visit to Brazil in July 1967, and our willingness to help them as they move toward nuclear power. Hosmer also spoke emphasizing the internationality of science and its utility as a bond between the U.S. and Brazil. Cavalcanti responded with a statement about U.S.-Brazil friendship and a description of their plans to embrace nuclear power.

I received a call at 2:40 p.m. from Governor Samuel Shapiro of Illinois indicating that he thinks our problem concerning the State of Illinois demand for a reverter clause for the land for the 200 BeV Accelerator has been essentially solved. I expressed my appreciation for the way he stepped in to solve the problem and invited him to the December 1st ground-breaking ceremony at the accelerator site.

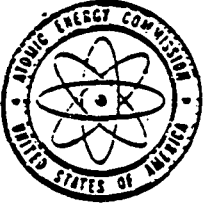
I again wrote to Lynne and Bill, this time to tell them about my planned visit to the HILAB at Burlington on Saturday morning before the Harvard-Yale football game. I also wrote to Dave at Davis to tell him that Antonio Gilbert de Carvalho, son of my Brazilian friend Hervasio Guimaraes de Carvalho, is a student at Davis and will look him up.

Wednesday, November 20, 1968- D.C.

At 11 a.m. I presided over Information Meeting 850 (notes attached). We further discussed the BENHAM shot and its possible effects on reactor tests at the nearby Nevada Reactor Development Station; we decided, however, that we would go ahead with BENHAM with December 17th as the readiness date. I sent a letter to Walt Rostow, asking for approval of BENHAM.

At 12:25 p.m. I presided over Executive Session (Adjudicatory) 181, at which the Commission agreed to permit the initial decision of October 10, 1968, regarding the Sacramento Utility District (Rancho Seco Nuclear Operations Station Unit No. 1) Docket No. 50-312, to become final on November 25, 1968.

At 12:30 p.m. I had lunch at the Metropolitan Club with Ed Bauser (new Executive Director of the JCAE). Bauser told me about his participation as an observer of the board of inquiry investigating the causes of the loss of the nuclear submarine Scorpion. He said he has talked to Holifield recently and Holifield



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November 20, 1968

INFORMATION MEETING 850

11:00 a.m., Wednesday, November 20, 1968, Chairman's Conference Room, D. C.

1. Chairman's Meeting with Governor Edward T. Breathitt, Federal Representative and Mr. Robert Gifford, Southern Interstate Nuclear Board, November 18, 1968

The Commissioners noted the response to Mr. Gifford's recent letter to Commissioner Ramey in preparation in staff, will also deal with the query to the Chairman on the possible NUPLEX Study; staff will consider making appropriate suggestions on contact with Puerto Rico and Virgin Islands on SINB membership. (IP)

2. Presidential Memorandum of November 18, 1968, re State of the Union Message

The Chairman requested special attention and response by December 2. (AGM)

3. Washington Post Article November 20, "ABM Move Called 'Major Blunder'"

Noted.

4. Commissioner Johnson's Review of Pros and Cons on Various Ways of Transferring Diffusion Plants to Private Industry

Commissioner Johnson is circulating copies to the Commissioners, the General Manager and Mr. Quinn for comment. (Helfrich)

5. Federal Council Meeting November 26, 2 p.m.

Commissioner Tape noted he had asked Commissioner Johnson to attend. (Helfrich)

6. Commissioner Tape's Report on PSAC Briefing on Reactor Program by Messrs. Kavanagh and Shaw, November 19

CONFIRMED TO BE UNCLASSIFIED  
AUTHORITY: DOE-DPC 68571/86  
BY E.G. ROGER DATE

*H. E. Roger* 7/15/86

7. Commissioners Meeting with Acting NASA Administrator, Thomas O. Paine, November 25.

To be scheduled at the convenience of Mr. Paine, Monday morning, November 25.  
(EAGM/SECY)

8. AEC-R 38/15 - Amendments to 10 CFR Part 71 - Packaging of Radioactive Material for Transport

Approved. (ADRA)

9. November 14, 1968, Letter from Dr. Mav, LRL Livermore re Explosives for Potential Users for Peaceful Applications Under NPT

The Commissioners requested an appropriate response. (PNE)

10. AEC 1282/18 - Draft Letter to W. W. Rostow re BENHAM

Approved as revised. NASA will be informed of NRDS aspect. The General Manager reported on his plan to meet with Col. Richard M. Hunt, Assistant to Vice President Humphrey, November 20. The Commissioners noted the change in announcement date for BENHAM from December 10 to December 9.  
(AGMMA/PI)

11. AEC 1282/19 - Execution Data

Approved. (AGMMA)

12. Radiation Standards for Uranium Miners (Oral)

The Commissioners approved the proposed compromise statement for consideration by the Federal Council circulated by Mr. Erlewine at the meeting.  
(AGMMA/RM/OS)

13. AEC 412/60 - Brigham Young University EEO Program

Noted. The Commissioners requested that they be kept informed of developments. (LABR)

14. Pending Contractual Matters Report No. 284

Noted. (PAR)

15. Personnel Item

F. T. Hobbs  
Acting Secretary

12:30 p.m.



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PRESENT

COMMISSIONERS

Chairman Seaborg  
Commissioner Tape  
Commissioner Johnson

STAFF

Mr. Hollingsworth  
Mr. Bloch  
Mr. Rubin  
Mr. Ryan  
Mr. Kull  
Mr. Hennessey  
Mr. Stokeley\*  
Mr. Kavanagh\*  
Mr. Winter\*  
Gen. Giller\*  
Mr. Erlewine\*  
Mr. Faulkner\*  
Dr. Maxwell\*  
Mr. Hobbs

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Secretary

\*Attendance by Topic(s)

is very concerned with the security situation in NATO, feeling that any information given to NATO is immediately lost through leakage. I told him about the impending budgetary problems for the 200 BeV Accelerator, saying we need \$100 million in the FY 1970 budget in order to keep to the completion date of the summer of 1972; otherwise, we have the danger of losing Robert Wilson, which would be a terrible blow to the project. He expressed the hope that we could have our authorization hearings very early in the next session.

I reminded Bauser of Hosmer's statement during his dinner talk at the AIF/ANS International Conference on the Constructive Uses of Atomic Energy last week that the authorization hearings might be delayed because we would first have President Johnson's budget, and then President Nixon's supplementary budget to consider. Hosmer also said that this might be a good opportunity to have a state-of-the-industry type of hearing before the JCAE, similar to the Section 202 hearings.

We briefly discussed the problem of disposal of the Commission's gaseous diffusion plants and I pointed out that the Commission would try to make a decision on this in the not too distant future.

We also discussed the ad hoc committee that was created to consider the safety aspects of the underground nuclear weapons testing in Nevada. I pointed out that the report of this committee will not be entirely favorable and that this will be an area that will require a decision by Mr. Nixon early in his term.

He pointed out that the JCAE staff is undermanned at the present time, with only Murphy, England and himself as regular members, and Radcliffe on loan. He is looking for more people and, in particular, for one who is knowledgeable in the nuclear weapons area.

I ran into Lewis L. Strauss at the Metropolitan Club and invited him to the Fermi Award ceremony at the White House and the subsequent reception at the State Department on December 2nd. He said that he, himself, will be receiving an award for his cattle at some function in Chicago on December 2nd and 3rd. However, he would also like to be present when his friend Johnny Wheeler is honored with the Fermi Award, so that he might arrange to have his son do the honors in Chicago and he would then be free to come to the Fermi Award ceremony. Strauss mentioned that Wheeler was the fifth person to receive either the Fermi or Nobel award following the receipt of the Einstein Award, which made him feel that they are doing quite well in the choice of the Einstein Award recipients.

At 2 p.m. I met with William R. Corliss, along with Justin Bloom and Stan Schneider, to discuss the book on the peaceful uses of nuclear energy that Corliss and I are planning to write. (The book might be titled Man and Atom.)

At 3 p.m. Julie Rubin and I met with Sherman Knapp (President, AIF), Kenneth Nichols (consultant), and Ed Wiggin (Atomic Industrial Forum). Knapp opened the discussion by indicating they wanted to review with me their views on the transfer of the diffusion plants from government to private operation. Ken Nichols interrupted to state they had not pushed this matter before the election to avoid its becoming involved in the political arena, but now feel it is very desirable to have the issue aired in this session of Congress. I expressed appreciation for their interest and identified a number of factors contributing to making this a very difficult decision for the Commission. These factors include the necessity to initiate the Cascade Improvement Program which will cost somewhere from one-half billion to one billion dollars, keeping our commitments to both foreign and domestic users of enriched uranium, maintaining

an adequate safeguards program for the enriching step and assuring that adequate competition or regulation would be provided for any method of continued operation of the diffusion plants. The visitors acknowledged that this is certainly a very complicated and difficult decision for the Commission.

Knapp expressed a view that it is vital to obtain congressional approval for an overall policy position that the plants should be transferred from government to private ownership prior to obtaining clear answers to all of the questions that have been raised or will be raised in the future on accomplishing such a transfer. Ken Nichols also added that time is not working in their favor as delays would only make it more difficult in the future to arrange for transfer from a government operation. I agreed with this and noted that the Commission experienced a similar situation in reaching its decision to seek private ownership for nuclear fuel. Knapp stated that adopting a clear policy position for eventual transfer of the diffusion plants should aid in obtaining the necessary government funds to carry out the Cascade Improvement Program. He further added these funds could be clearly identified in special accounts to be sure of their recovery when the plants are transferred. Nichols also commented that experience in merging companies and purchasing new facilities has shown that it is not necessary to defer such actions until on-going construction or improvements have been completed, as the accountants could establish a basis for such changes at any stage of activity.

I stated it would be necessary for industry to become better informed about the potential of the gas centrifuge before committing major private investments in the diffusion plants. I also stated that the Commission is not of one mind in the gas centrifuge area and that arrangements for this information to be made available might require considerable effort. Nichols suggested that it is timely for a new review of our overall policy on treatment of gas centrifuge information. I agreed and indicated such consideration is already under way. The group agreed that the importance of the gas centrifuge is particularly significant in consideration of any new plant capacity that might be committed for the post-1975 period. I noted that Craig Hosmer in his AIF banquet speech clearly indicated that he does not completely agree with the results of the AIF study for the immediate transfer of diffusion plants to private companies. I described my personal position as leaning more toward a private operation than possibly others on the Commission, but I recognize that it is necessary to seek some middle ground between government operation and the AIF study position of a completely private competitive industry. Nichols expressed some concern with the transition stage approach as it may be difficult to ever get by the transition step leading toward eventual private ownership of diffusion plants. It was his view that the complete private operation ought to be in its final form prior to 1975 in order for the new expansion commitments to be made.

The subject of supply of capital to support the expansion program as well as the near-term Cascade Improvement Program and purchase of the plants was discussed. Nichols expressed a view that the industry would have little difficulty in financing this activity and offered as an example a single company, such as Detroit Edison, requiring \$2 billion in the next ten years for their construction operations alone. I indicated this is certainly a concern expressed by many and particularly by Commissioner Johnson. Nichols suggested a congressional hearing is desirable in the coming Congress with the objective of establishing a policy that would lead to a transfer of the diffusion plants to private industry. He is hoping the subject could be sufficiently aired in 1969 so that some specific progress could be made and legislation effective by 1970. In amplifying on this subject, Nichols stated that three and possibly, four different companies or groups of companies were a practical limit to the number should be involved and suggested that this would offer sufficient competition to

eliminate the need for any government regulation. I stated this is generally consistent with my views and agreed that the Justice Department position, supporting the A.D. Little study indicating a desire for five to six plants to assure effective competition, is both impractical and unrealistic.

I inquired whether the best economics would result from three or four separately owned and managed plants rather than a single system under one management. Both Knapp and Nichols placed considerable importance on competition between separate owners assuring the best possible economics. This led to a discussion on the types of companies that might be permitted or be interested in private ownership of diffusion plants. Nicholas suggested that the Commission not attempt to eliminate anyone from consideration. He added that it would be a mistake to have all three plants owned by petroleum companies or reactor manufacturers but that some appropriate mix which might also include utilities would make sense, and also assure the desirable degree of competition. Wiggin added that private operators in certain combinations might also wish to offer as a product enriched uranium as well as an enriching service. With regard to the matter of satisfying foreign commitments, Nichols indicated that firm contracts with the new owners of the plants should suffice. He also stated it is clear that in time foreign countries will have their own enriching plants and that we should be prepared to participate in their construction and ownership as well as continue to plan on supplying certain portions of their requirements from U.S. plants. He stated that the foreign groups would not necessarily provide a capacity for 100% of their requirements, particularly as long as we could offer a cheaper product.

I inquired about their views on the Sporn proposal. Nichols stated that it is clear this would have considerable political appeal but expressed concern that it lacks the advantage of competition between different owners of plants. Knapp stated that Gordon Cory (Commonwealth Edison) appears to agree with Nichols' conclusion and he also believes that competition between separate owners offers an overall advantage. They recognized the potential efficient operation of a major regulated utility such as AT&T but continued to emphasize that competition between a number of suppliers is the optimum situation. The other possibility of utility or industry ownership of one or two plants with the government continuing to own at least one plant as a yardstick would be a very undesirable arrangement and one opposed by the industry and the utilities.

In returning to the Sporn proposal, Nichols stated that it is clear that the main motivation behind establishing OVEC was to provide a mechanism for competing with TVA during the gaseous diffusion plant expansion program in the 1950's. This led to a comment by Knapp that if the Internal Revenue Service goes along with Oliver Townsend's program in New York State it will result in major changes in the organization and financing of the private power system as we know it in the United States. The discussion again returned to possible ownership by utilities of a diffusion plant. Knapp again referred to Cory's position that at least the way should be left open for them to build or operate plants in the future. It would provide added assurance that appropriate competition existed and also Nichols indicated there may be special circumstances which would make this attractive. For example, he stated that Pacific Power and Light owns property in Utah where coal might be available for as low as 6¢ per million BTU. This is due to the existence of a 90-foot strip of coal beneath about 100 feet of rock that is susceptible to very efficient mining operations. The total coal supply at this location is adequate to support a diffusion plant of about 17,000 metric tons capacity for its 30-year life. While it would not be economical to mine the coal and ship it to coal-fired plants, it would be extremely economical to locate a diffusion plant at this coal field.

Knapp indicated to me that it would be very desirable if he could visit our Oak Ridge diffusion plant in order to get a better feel for the problems involved in their possible transfer. I stated that we are already making plans to permit certain U.S. groups to at least have a tour equivalent to that given to foreigners that participated in the AIF briefing program week before last. I again explained the problem of convincing some people of the desirability of permitting individuals such as Knapp and possibly others to have increased access to these facilities. I suggested that it would be very desirable for the visitors to discuss their views with the Commissioners as well as members of the JCAE. I also added that certain views expressed during our discussion should be treated reasonably confidentially since I had been very candid in identifying some of the problems that I could see in considering transfer of the diffusion plants to private operation.

At 4:05 p.m. I called Lewis L. Strauss and asked about the procedure for making nominations for the Einstein Award. He said that anyone can make a nomination, and the jury is composed of the past recipients of the medal. If I send a nomination to Strauss, he will get it to the committee. They usually try to consider the nominations in January, with the announcement made on Einstein's birthday in March. In some years no award is made (which was the case in 1968). I mentioned Albert Ghiorso, and Strauss said that any nomination from me would receive careful attention. Also, he reminded me that Luis Alvarez of Berkeley won the award some years ago. He said he would not be able to attend the Fermi Award ceremony on December 2nd. He said he feels proprietary about the Einstein Award because it was his idea. I said I invited Laura Fermi to the Fermi Award ceremony; he suggested the possibility of bringing her here at that time in the capacity of a consultant as historian.

Helen is still sick with a severe cold and flu and Dr. John Marbury came by to see her today, as the result of a phone call from Dianne. Dianne had been home from school all week with a cold.

Thursday, November 21, 1968- D.C.

At 8 a.m. I left home (accompanied by Julie Rubin) to visit the Special Facilities Division at Mt. Weather (at Route 601 near Route 7 in Virginia). There we met Commissioner Costagliola and Maida Kari. We were briefed by Mr. Gallagher (Site Manager) and other key personnel, and then made a tour of the site. I made a short statement for taped color TV to be shown later to the employees. We had lunch in the site cafeteria. Costagliola, Rubin and I then rode back to Washington to the H Street office.

At 1:30 p.m. I received a telephone call from Russell G. Herron (Commander, USN, Retired). Herron said that if and when I return to California, he feels there would be a great deal of interest in having me assume a position of leadership in California, such as running for governor, senator, or even president. He volunteered his services in this connection. He suggested that sometime when I visit California, he would like to see me and to "bring a few friends to my attention." I expressed my appreciation for his thoughtfulness, and said I would bear this in mind. He said he would write me soon. (He lives in Camarillo, but works in Los Angeles.)

At 4:30 p.m. I attended a reception at Blair House given by Charles Bohlen (Deputy Under Secretary of State for Political Affairs) in honor of the Romanian cultural delegation. Ambassador Corneliu Bogdan and First Secretary Nicolae Atanasiu were present, but Horia S. Hulubei, Ion I. Purica and Marius Petrascu

hadn't returned from Oak Ridge yet, presumably because their plane was late.

Helen felt much better today and Dianne went to school a half day (afternoon) and then they participated in Dianne's investiture into the girl scouts.

Friday, November 22, 1968- D.C.- Cambridge

At 10 a.m. I met, along with Commissioner Costagliola, Myron Kratzer, John Ryan, and Julie Rubin, with George Woods (former president of the World Bank) and Dean Peterson (Water for Peace Office, Department of State). Woods started the discussion by explaining his connection with the Israeli Desalting Project. He advised that just prior to his departure from the position of president of the World Bank, President Johnson asked him to look at this project and offer his views on its merits. He indicated that he had agreed to make this review with the understanding that it wouldn't require more than a few months. Some specific terms of reference of May 6th were referred to in the conduct of his study and a photostat of a letter from the President to Woods in which the review was requested, was handed to me and read aloud. In this connection, Woods asked if we had seen a copy of his letter to the President on the results of his study and I indicated that we had not. Woods returned to his letter from the President and made a specific point of one phrase in which he was given complete freedom in making his review. Based on this directive, Woods has talked to a number of people in this country and eventually made a trip to Israel to acquire firsthand knowledge of the problem. He reported Israel is a fairly small country but is doing an excellent job in managing its water resources.

Woods' judgement is that Israel is a good location in which to explore a desalting project and his view, as reported in the results of his study, is that a 40 million gallon per day plant is about the size required, the capacity of plant that could be reasonably financed and also one that would present technology to a point where the knowledge gained would be meaningful. He recognized that water from such a plant would cost on the order of 35¢/1,000 gallons but based on conditions in Israel, this cost would not be too unattractive. Woods stated that it is not his intention to steer the project away from nuclear power or foreclose on a larger capacity. His principal interest is in assuring that the desalting project is not killed by complications such as the power tie-in and other technical variations. He recognizes the benefits of a 100 million gallons per day plant in overall economics and admitted that his selection of a 40 million gallons per day plant is quite arbitrary and a personal judgement of the size plant that appears reasonable at the present time.

Woods then related that, as a Boston banker and former head of the World Bank, his personal support and interest in nuclear power development has always been optimistic. He is somewhat concerned about the impact of any additional terminations of projects like the Bolsa Island Project on desalting technology. I explained that the Bolsa Island Project termination was principally related to the difficult administrative situation that developed between Southern California Edison, the Metropolitan Water District, and the Los Angeles Power and Light Company. Woods expressed understanding of this situation and merely restated his position that public support for desalting could not stand many more terminations of this nature. I explained that our position on Woods' study is essentially stated in our letter to Secretary Rusk. Woods indicated that he had seen the letter and had reread it on his trip to Washington. I reemphasized our interest in steering Israel into a desalting plant with a U.S.-type nuclear power plant in order to assure that Israeli nuclear facilities would be under appropriate international safeguards.

Woods advised that there are some elements in Israel that wish to have a nuclear power system with a natural uranium base so that Israel could avoid international safeguards issue. I also explained that it is very important to build a large enough desalting plant to make the product economically attractive and our studies indicate this would have to be at least on the order of a 100 million gallons per day system with a nuclear power tie-in. Woods referred to a letter from Commissioner Ramey in which it was indicated that the financing item should be given further study. He first indicated a personal view that Israel could finance their own power system and that any special subsidy by the U.S. should be given through our aid programs. Woods then stated that he considers himself quite an expert in the financing picture since in his capacity with the First Boston Corporation as well as the World Bank he had personally arranged for a large number of loans for utility activities. With regard to any use of the Export-Import Bank for financing projects of this nature, Woods stated that the interest rate for facilities larger than the presently required capacity would be prohibitively expensive due to the added carrying charges.

I then asked Woods if there wasn't some middle ground between our respective views that might offer the President a single position to consider. For example, I suggested that Woods might indicate that his support for a 40 million gallons per day plant could be a first step toward a 100 million gallons per day plant and this would go a long way toward satisfying the Commission's objectives. I then added that it would be a natural extension of such a conclusion to suggest that it be tied into a nuclear power plant because this is the only economical energy source in these large sizes. Woods indicated that he had not focussed on the fact that the energy source would only be economical if it were nuclear in these large sizes and suggested this is a very strong argument for our case. Nevertheless, he did not offer to modify his position. Woods stated that he had been asked for a position from the President and had already submitted the results of his review as requested. He indicated that if the Commission has a different viewpoint, that it is perfectly logical that they communicate this to the President either directly or through the Secretary of State, as has been requested by Walt Rostow. I indicated we are certainly prepared to do this but hope to be able to provide the President with a single recommendation.

In a continuation of the discussion Woods referred to Ramey's position in his recent letter and expressed disagreement with Ramey in there being a loss of U.S. prestige if this project is not related to a large nuclear power plant. Woods stated that he fully recognizes the AEC charter and expects Ramey and me to encourage use of nuclear power in this and other areas. He also added that he fully expects that once the desalting project for Israel is committed, they would be expected to consider all possible energy sources and the Commission would certainly have a convincing position to offer. Woods again repeated his analysis of the Israeli capability in this area and indicated confidence that they would select size and type of plant that made the most economical sense. Peterson attempted to review the position of Woods and the AEC and repeated my observation that our positions are fairly close. In seeking some middle ground that both might agree to I left the door open for Woods to move from his original position. Woods remained fairly firm and merely indicated that he is not personally knowledgeable enough in the nuclear field to support our position.

Kratzer then tried to offer some possible alternatives that Woods might support and amplified some previous statements about the economic advantage of nuclear power in the large plants, the possible advantage of going nuclear even if it were a standoff with some alternate system and the relationship of possibly

using cooperation in this project with obtaining approval by Israel for the NPT. Woods expressed little sympathy for trying to tie this project to these extraneous activities and restated that the only argument he has heard that makes sense is the one offered by me, in which there is an indication that nuclear plants in very large sizes would be the only system that could offer an economically attractive product. The meeting concluded with a final request by me that we try to seek some middle ground that would offer a unified position to the President. Woods remained firm that his recommendation to the President has already been submitted and any modification he would consider would still have to be one short of recommending that the project be tied to a nuclear plant. In concluding the discussions Woods asked what the next step might be and Peterson indicated that Secretary Rusk would likely forward the positions of Interior, the AEC, and the Department of State to Walt Rostow, and the recommended position to the President would have to evolve from the positions of these three organizations.

At 11:05 a.m. I met, along with Commissioner Costagliola and staff, with Horia S. Hulubei (Chairman, Romanian Committee for Nuclear Energy), Ion I. Purica (Head of Reactor Department, Institute of Atomic Physics, Bucharest), Marius Petruscu (Head of the Laboratory of Nuclear Reactions), Ambassador Corneliu Bogdan and First Secretary Nicolae Atanasiu, during which meeting Hulubei and I signed an Agreement for Cooperation in the Peaceful Uses of Atomic Energy between the U.S. and Romania.



Signing of Agreement of Cooperation with Romania, November 22, 1968  
L to R: Bloch, Hollingsworth, Purica, Petruscu, Costagliola, Bogdan,  
Seaborg, Hulubei, Abrahams, Atanasiu, Burgess and Kratzer



At noon I received a telephone call from Admiral Rickover. He said that we now have 101 naval reactors in operation; by the end of next week we will have 80 submarines and four surface ships. The main purpose of his call dealt with nominations he has made of W. Wegner and D. T. Leighton of the Division of Nuclear Reactors for the Lawrence Award. He does not wish to make a choice between the two. If it should happen the GAC should decide to select one of them, he wondered whether the award could be split between the two of them. I said I would pass this thought on to the GAC. (Note: At 4:05 p.m. I called Tony Tomei regarding Rickover's call. Tomei said he would mention this to the GAC; however, the law concerning the award states that no one medalist can be awarded less than \$5,000 or more than \$25,000. I made it clear that I am not trying to suggest that the GAC should select each--or either--of these nominees for the award, but am merely passing on Rickover's thoughts.)

At 12:30 p.m. I hosted a luncheon at the Washington Hilton for the Romanian group (as listed above). Present also were Daniel F. Margolies (White House), Barlow (White House), England (JCAE), Donovan Zook (State Department), Commissioner Costagliola, Bob Hollingsworth, Ed Bloch, Howard Brown, Myron Kratzer, Julie Rubin, Abe Friedman, Paul McDaniel, Charles Pelzer, Melvin Abrahams, and Norman Brand. I spoke on the scientific bond between the U.S. and Romania, my friendship for Hulubei, and my pleasure concerning our Agreement for Cooperation. Hulubei responded movingly. During lunch he told me that Romania would resist strongly any Soviet invasion (presumably he had in mind the Soviet invasion of Czechoslovakia).

I flew to Boston on Eastern Airlines Flight No. 198, leaving at 7 p.m. and arriving at 8:20 p.m. Lynne and Bill met me and we rode to Cambridge on the MTA. We went to their apartment (#5B, 2 University Road) and then took a walk across the Harvard campus, by the numerous "houses" to the Computer Center with which Bill is connected in his work for a Harvard professor, by Harvard Square, and then back to the apartment. I spent the night in the apartment.

Saturday, November 23, 1968- Cambridge- D.C.

I had breakfast with Lynne and Bill in their apartment.

Denis Robinson (President, High Voltage Engineering Corporation) came by and I rode with him and Vickie Weisskopf (whom we picked up at his home) to HILAB. Lynne and Bill came along in another car. Here we saw the TU Van de Graaff accelerator under construction and the Emperor Van de Graaff. We also visited the research laboratory where a smaller Van de Graaff is operating, the stripping foils are produced, etc. I had a fruitful discussion with the members of the group, especially Peter Rose (Director of Research, Van De Graaff Tandem Laboratory, which operates on a \$600,000 budget), on the merits of the TU vis-a-vis other methods of accelerating heavy ions to produce heavy transuranium elements such as Z=114. Also present were Gordon Kingsley (Executive Vice President, High Voltage Engineering Corporation), Charles Goldie (Chief Engineer), Jacques Shaw (engineer), Glen Gordon (my former graduate student, now at MIT), Lee Grodzins (MIT) and others. We had lunch at the research laboratory.

Robinson and his driver then drove us back to Cambridge where Lynne, Bill and I went to Harvard Stadium to see the Yale-Harvard football game. This was a fantastic game. Yale led, 29-13, with only about two minutes left to play and with Yale in possession of the football in Harvard territory. Harvard scored with 42 seconds remaining, then added two points (on a second try). Harvard engineered an on-side kick, then scored on a play started with three seconds remaining, the score coming after regulation time had expired, then added two points to tie the game, 29-29.

I had dinner with Lynne and Bill in their apartment. Then they accompanied me on the MTA to the Boston airport. I flew on Northeast Airlines Flight No. 317 to Washington, leaving Boston about 8 p.m. and arriving about 9:15 p.m. I talked to Senator Edmund Muskie on board--he said he and Humphrey might have won if the election had been held a few days later or if Saigon had behaved better in the cease fire talks.

Sunday, November 24, 1968- D.C.

My Letter to the Editor of the New York Times appeared this morning-- commenting favorably on Walter Sullivan's recent article on the heavy transuranium elements and pointing out the importance and value of such work (copy attached).

Steve, Eric, Dianne and I went to D.C. Stadium to see the Washington Redskins-Green Bay Packers football game. The Packers won handily, 27-7.

Monday, November 25, 1968- D.C.- Fort Lauderdale

At 9:45 a.m. I presided over Information Meeting 851 (notes attached).

At 11:05 a.m. I received a telephone call from Phillip S. Hughes (BOB). He referred to the snappy letter (copy attached) which he received from Ramey on the question of thermal pollution involving the AEC, Interior and BOB. He said he would be sending a response in due course but wanted to talk to me about it to make sure I was familiar with the history of it. He said there has been a protracted series of discussions among the three agencies complicated by legislative action and kibitzing by both the JCAE and Senator Muskie. Several solutions were tried but none bore fruit for reasons not altogether clear. He said he agreed with me that the situation would eventually take care of itself. But he thought the letter indicated that we might not be aware of two things: 1) the fact that they had the arm put on them fairly hard by Senator Muskie who was upset by conflicting reports from the agencies, and 2) the fact that the BOB did not give their views without first informing the AEC. He said their staff had several conversations with our General Counsel staff. He did not talk to Ramey since he was out of town but held off any action until the General Counsel people could talk to him. He said he understood Ramey isn't too happy about it. He said he thought the best thing to do now would be to let the new Congress and new administration take a look at it to see what solution can be worked out. I told him I understood their problems and that I appreciated his calling me about the matter. He asked if I thought he should talk to Ramey and I said I think it would be worthwhile.

At 11:15 a.m. Commissioners Johnson, Tape and I met with Thomas O. Paine (Acting Administrator of NASA), J. M. Beggs, H. E. Newell, H. B. Klein and W. H. Shapley, along with AEC staff, Milton Klein (also of NASA), Bob Hollingsworth, Ed Bloch, John Abbadessa, and others. We discussed AEC-NASA problems, particularly problems of getting BOB approval for NERVA funding for FY 1970. Paine will see President Johnson tomorrow to try to convince him to overrule the BOB and provide adequate funding.

I signed my biweekly letter report to President Johnson (it was dispatched on November 26th).

I wrote Lynne and Bill to send them a copy of my Letter to the Editor of the New York Times that I had promised to send them when I saw them over the weekend.

### Chemical Elements

To the Editor:

I was surprised and pleased to see The Times article of Nov. 8 by Walter Sullivan concerning synthetic chemical elements and the attempts to discover new elements. It is a remarkable piece of forward-looking journalism. The fact that it has appeared on the front page of a major newspaper, rather than in a scientific magazine, is equally significant.

Studies of the type described by Mr. Sullivan are among the most difficult and long-range of the efforts being made by scientists in the United States to better understand the mysteries of nature and to use the understanding gained for the world's benefit.

It is important that everyone, from schoolchildren to adults, be familiar with this kind of research. It is publicly supported and it may well have an impact on our future lives.

#### Periodic Tables

The article is also very timely. Next year will mark the centenary of the creation of the modern periodic system of the elements by Dmitri Mendeleev, the famous Russian chemist, and there will no doubt be an international revitalization of effort to expand the periodic table into hitherto unexplored realms. Such work will require the use of facilities and equipment which are ever increasing in complexity and variety to keep up with the ingenuity and imagination of our scientists.

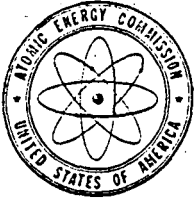
The up-to-date periodic table included in the article is not yet readily available to students and teachers through the medium of science textbooks. Therefore, it should be of interest to educators at all levels. Since the table includes numerous elements that are still to be synthesized and identified, it should serve as an inspiration to many young future scientists by demonstrating that it is possible to predict the chemical properties of these additional building blocks of nature and that there are good prospects for producing them.

I would like to congratulate The Times and Mr. Sullivan for their perspicacity in recognizing the accomplishments of a field of endeavor which more often than not is relegated to journals of limited distribution and limited interest.

GLENN T. SEABORG  
Chairman  
Atomic Energy Commission  
Washington, Nov. 12, 1968

CONFIRMED TO BE UNCLASSIFIED  
AUTHORITY: DOE-DPC  
BY R.G. BOGER DATE 02/18/86

*Handwritten signature and date: 7/15/86*



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

UNCL. BY DOE  
NOV 88

COPY NO. 2  
November 25, 1968

INFORMATION MEETING 851

9:45 a.m., Monday, November 25, 1968, Chairman's Conference Room, D. C.

1. Chairman's Report on November 22 Discussion with Messrs. Woods and Peterson re Israeli Desalting Plant

2. November 27 and November 29 Schedule for Commission Consideration of Fiscal Year 1970 Budget Estimate Mark-up

4:00 p.m., Wednesday, November 27, Room 1115; and,  
9:15 a.m., Friday, November 29, Room 1115 (OC-SECY)

3. AEC 1283/28 - Draft Authorization Bill - FY 1970

Approved. (OC)

4. AEC 1096/94 - Subcontract for Architect-Engineer and Construction Management Services - 200 BEV Accelerator Project

Approved. (DC)

5. AEC 588/69 - PNL-Westinghouse Subcontract - FFTF

Approved.. (DC)

6. AEC 811/212 - Execution Data for Project Schooner

Approved. Commissioner Tape requested revision of the execution criterion from "not on a holiday" to "not on Christmas Day." (PNE)

7. Uranium for Italian Nuclear Ship (See Commissioner Tape's November 18 Memorandum; November 20 Letter from AGMIA to Mr. Edward Bauser, JCAE; AEC 965/10; and Admiral Rickover's November 25 Memorandum to the General Manager)

Noted. The Commission requested:

- a. The Department of State be informed.
- b. Staff draft a letter to Sir William Cook for Commissioner Tape's signature.
- c. Recommendations on proposed changes in US policy.  
(AGMIA)

8. AEC 719/72 - Proposed U.S. Offers to Host FAO/IAEA Training Courses at MIT and University of Florida

Approved with a request. (AGMIA)

9. AEC 801/51 - Revision of Agreements for Cooperation

Noted. (AGMIA)

10. Certificate for Mr. James E. Reeves, Manager, Nevada Operations Office

Approved. (SECY)

11. December 1 Afternoon Reception in Chicago

12. Mr. Howard Brown's Report on Meeting with Dr. Walske, Assistant to the Secretary of Defense, re NATO Security

12. November 21 Letter to Commissioner Johnson from Mr. Lorne Gray, AECL, re Capital Cost of Enrichment Plants

13. November 20 Letter from Philip Lee, HEW, to Mr. Erlewine attaching Draft Radiation Protection Guidance for Federal Agencies

Noted for discussion at the Federal Radiation Council Meeting November 29 which Commissioner Tape will attend. (AGMO)

15. NTS Events (See General Giller's November 21 Memorandum)

Noted. (AGMMA)

16. Planning for NTS Events as Related to NRDS Facilities and Equipment

Mr. Hollingsworth reported briefly on the possible effects of the Benham Event and Commissioner Tape suggested staff review of future planning. (AGMMA-SNS)

W. B. McCool  
Secretary

11:00 a. m.

PRESENT:

COMMISSIONERS:

Chairman Seaborg  
Commissioner Tape  
Commissioner Johnson

STAFF:

Mr. Hollingsworth  
Mr. Bloch  
Mr. Brown  
Mr. Hennessey  
Mr. Rubin  
Mr. Abbadessa  
Mr. Ryan  
Mr. Kull  
Mr. McCool  
Mr. Corso\*  
Mr. Smith\*  
Mr. Hamburger\*  
Mr. Kratzer\*  
Mr. Wegner\*  
Mr. Erlewine\*

DISTRIBUTION:

Commissioners  
General Manager  
General Counsel  
Secretary

\*Attendance by Topic (s)



UNITED STATES  
ATOMIC ENERGY COMMISSION

WASHINGTON, D.C. 20545

UNCL. BY DOE  
NOV 88

November 18, 1968

Mr. Phillip S. Hughes  
Deputy Director  
Bureau of the Budget

Dear Sam:

When I last discussed with the Bureau of the Budget the difference in viewpoint between the Atomic Energy Commission and the Interior Department with respect to the solution of the thermal effects problem, I was informed that each agency was free to make its own recommendations to the Congress and that the BOB would not commit the Administration to either of the recommendations.

Accordingly, we were surprised to learn on October 29, 1968, that a decision had been made for the Bureau to endorse the Interior position supporting amended section 11 of the Federal Water Pollution Control Act, as set forth in S. 3205.

As you know, the Atomic Energy Commission had previously commented on this matter in its letter of February 15, 1968, to Jim Hyde and I had written to you on April 29, 1968. We still maintain that it is quite possible to develop administrative arrangements with the Interior Department whereby the Federally-approved water pollution control standards can be coordinated with the licensing program of the Atomic Energy Commission. We believe that it is not necessary to implement existing authority either in the Federal Water Pollution Control Administration or in the Atomic Energy Commission so that thermal effects can be properly and adequately dealt with to the satisfaction of both agencies. We continue to recommend that such administrative procedures be given a reasonable period in which to establish their efficacy. As we have stated, we are hopeful that license applicants for nuclear plants will cooperate in these procedures to facilitate compliance with federally-approved standards.

Mr. Phillip S. Hughes

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It is to be expected that new legislation addressing this problem will be introduced in the next Congress. While we are mindful that the Bureau of the Budget has endorsed the Interior Department's viewpoint, we urgently request that the Bureau reconsider its position. In this connection, we trust that we may have further meetings with you and your associates, as well as with the officials of the Interior Department, in order to assure that every effort will have been made to arrive at a common position.

Sincerely,

James T. Ramey  
Commissioner



At 12:25 p.m. I had lunch in my office with Julie Rubin.

I flew to Fort Lauderdale, Florida, leaving Baltimore airport on Northeast Airlines Flight No. 105, leaving at 2 p.m. and arriving about 4:15 p.m. I was met by Warren Winstead (President) and Dayton R. Carritt (Provost) of Nova University. They drove me to the Sheraton Hotel, where I checked in.

At 6:30 p.m. I attended the reception on the top floor (penthouse floor) in the Venetian Room where I met the members of the GOLD KEY organization (supporters of Nova University) and their guests (a total of about 70 people) (copy of list attached). M. R. "Cy" Young (President of the GOLD KEY) presided at the dinner. Dr. Carritt introduced me and I spoke on "The Four Horsemen of Progress." Winstead, Carritt, Young, Charles Forman and August Burghard sat at the head table. Jim Farquhar (Chairman of the Board of Trustees of Nova University) sat in the audience.

After dinner, after talking to many of the members of GOLD KEY, I talked with Lee McLean and his 19-year-old son Steve. We discussed the direction of the University of California under the new administration and the financial status of Nova University.

Cy Young is the owner of the Ocean Manor Hotel, Fort Lauderdale Beach, and he invited the Seaborg family to come to Florida and stay there.

I spent the night at the Sheraton Hotel.

#### Tuesday, November 26, 1986- Fort Lauderdale- Miami

August Burghard and Jim Farquhar came by and picked me up, drove me around Fort Lauderdale to show me its canals and the site of Nova University's Oceanography Laboratory, and drove me to the Fontainebleau Hotel in Miami Beach. I checked in and then registered for the Fall Meeting of the American Physical Society and went to the session on "Fission."

I heard the talk by Ray Nix. He said we need a more complicated energy surface than a one dimensional potential barrier to explain the four parameters used in the description of the spontaneous fission of  $\text{Am}^{242\text{m}}$ .

I saw D. R. Inglis, who described his concern about the U.S. ABM program and the basis for his opposition to the installation of ABM missile sites near Chicago.

After the session on fission I had lunch with Stan Thompson, S. G. Nilsson and C. F. Tsang in the coffee shop. We (except Tsang) continued our discussion on the beach, where we were joined by Bob Vandenbosch, Marshall Blann, John Reynolds (Berkeley), W. J. Swiatecki, and others. We discussed shape isomerism as an explanation for heavy fission isomers and the islands of stability in the transactinide region.

Thompson would like to get ice from the Arctic to search for element 110 in it. He would like some of the two-ounce, old (2 billion years) platinum ore sample now in the Smithsonian.

Thomas Paine (Acting Administrator of NASA) called me from Washington to tell me that he was successful in his conference with President Johnson today (attended by BOB Director Charles Zwick) in convincing the President that the nuclear rockets program (NERVA) should be continued in FY 1970 on a level that will allow the continued development of NERVA.

GOLD KEY DINNER GUEST LIST  
November 25, 1968

W. Howard Allen	President of First National Bank, Ft. Lauderdale
Dr. Myron Ashmore	Superintendent of Schools, Broward County
Robert O. Barber	President, Univis, Inc., optical manufacturing company
Stanley A. Emerson	Vice President, Univis, Inc.
James Donn, Jr.	President, Gulfstream Park Racing Association
Robert C. Ellyson	Partner, Ring, Mahony & Arner
James Farquhar	Capitalist, Chairman of the Board of Trustees, Nova University
Foy B. Fleming	Chairman of the Board, American National Bank; member of Fleming, O'Bryan & Fleming, attorneys
Russell French	Chairman of the Board, First National Bank, Pompano Beach
William D. Horvitz	President, Hollywood Land Co., Inc., Hollywood Buildings, Inc., Hollywood Mall, Inc.
L. C. Judd	President, L. C. Judd and Company; Director, First National Bank
Dwight L. Rogers	Member of Rogers, Morris and Ziegler, law firm; director several banks; Trustee, Nova University
Dr. Myron I. Segal	Trustee of Nova University; Surgeon, FACCP, FACS, FACAS, FACA, AMA, Harvard Club
Dr. Warren J. Winstead	President, Nova University
Gregory J. Barry	Former Comptroller of Continental Can Corp.; member of Harvard Club of Broward County; Power Squadron, former Treasurer
Donald U. Bathrick	Formerly with Ford Motor Company and General Motors Corporation; Chairman of the Board, Standard Fruit and Steamship Co.; director of several banks
Robert Elmore	President, Hardrives Corporation

Edward E. Fitzgerald	Retired Business Executive
Fred C. Flipse	Secretary, Treasurer, Gulfstream Corporation; President, Exotic Gardens, Inc.; President, International Florist Association
George Gill, Jr.	President, Gill Hotels of Florida and the Bahamas
Alvar Hagen	Investments
James M. Hartley	Architect
John Mendez ) James Shaw ) Edward J. Marko ) Edward G. Stephany ) Kevin M. Lyons )	Attorneys, partners in Mendez, Shaw, Marko and Stephany
John E. Morris, Jr.	Attorney; bank director
William C. Runnstrom	Industrialist, President, Runnstrom Industries, Inc.
Earle Scott	Scott Aviation Corporation and Scott Industries, Earle M. Scott & Associates, Inc., Boca Raton, Florida and Lancaster, New York
Dr. Bruno C. Schmidt	Poet, Investor
William E. Wardman	Retired Army officer, Capitalist
M. R. "Cy" Young	President of GOLD KEY; owner of Ocean Manor Hotel, Ft. Lauderdale Beach
Frederick B. Youngblood	Yachtsman, Capitalist
F. J. Von Poppelin	Retired Capitalist
William Casey ) William Carroll ) Howard Quackenbush ) Howard Dresbach ) Roger Brown )	Business Executives
Dr. Keith Wold	Medical Doctor
Thomas Cundy	Business Executive
Joseph and Serge Storelli	Thoroughbred racehorse owners
Al Novak	Manufacturer

Roger Mohrs

Business Executive

Dr. Charles R. Forman )  
Dan Moore )  
Sam Tucker )  
Wilson Atkins )  
Ferguson Peters )  
Verlon Burrell )  
William McFatter )  
Dr. Harry McComb )  
Dr. Bill Meyers )  
Dr. Warren Smith )  
Pete Viens )  
Dave Fitzpatrick )  
Larry Wantauch )  
Alfred Rapp )  
John Clark )  
Bob Vignola )  
Charles R. Forman, Jr. )  
Lee Heinrich )

Broward County Public School and Junior College  
Executives and Officers

Robert Steele)  
Lloyd Johnson)  
Peter Zinitti)

Business Executives

Orville Bottorff

Founder of Civic Music; Retired

Gregory McIntosh

Capitalist, Yachtsman, member of Broward County  
Port Authority

Tom Shelton )  
Lloyd Dutcher)

Business Executives

John Pettit

President, Broward Manufacturers Association;  
Coley Judd, Inc.

William MacKenzie

Past President, Broward Manufacturers Association;  
President, Broward Armature Work

Dr. Dayton R. Carritt

Provost, Nova University; GOLD KEY Chair of Chemical  
Oceanography at Nova University

Lester White

Engineer

Lee McLean  
Steve McLean

Vice President, Nova University  
Son of Lee McLean

August Burghard

Former President, August Burghard Inc. Advertising;  
Executive Director, GOLD KEY of Nova University

I attended the reception and dinner of the American Physical Society. I sat at a table with Fred Seitz, Karl K. Darrow, Dr. Shoup, Dr. and Mrs. John Bardeen, Luis W. Alvarez, and Cynthia and Nancy Havens (daughters of W. W. Havens). Fred Seitz was the speaker; he spoke--and very well--on the relationship of science and the federal government.

My biweekly letter report was transmitted to the President today (copy attached).

Wednesday, November 27, 1968- Miami- D.C.

I had breakfast in the coffee shop with John Harvey (ORNL Neutron Physics Group), Joe Fowler (ORNL Fast Neutron Physics), and Charles Bowman (LRL, Livermore). Harvey described progress on building their 150 MeV linear accelerator. Fowler described his idea of looking for element 126 on the moon, produced by bombardment of uranium with cosmic ray bromine ions. He also mentioned the Hartree-Fock calculations of T.A. Carlson et. al. on the electron structure of superheavy elements. Bowman mentioned his work on sub-threshold fission and the work at Livermore by John searching for element 110 in nature. They bombarded platinum ores with neutrons to look for symmetrical fission products of element 110 and set an upper limit of one part in  $10^9$ . Fowler said Lew Keller is also looking for element 110 in nature at Oak Ridge.

I attended the symposium on "Transuranic Research." Allan Bromley presided.

W. J. Swiatecki gave a talk. He spoke of the stability of ultra ultra heavy nuclei, with A approximately 8000; these should have a thick spherical shell with an outer and inner surface. They should be first observed at  $Z=390$  and  $A=1100$ . At higher A the nucleus collapses back to a solid form. A cursory survey suggests the non-existence of such macronuclei. However, there is some hope for their existence at  $A=14,000$ ,  $Z=1200$ . The concept should be explored further. If Niels Bohr and Carl-Friedrich Weizsacher had explored the liquid drop model more in 1935, they could have immediately predicted nuclear fission. With macronuclei (extremely large) the coulomb energy of the electrons becomes comparable to the coulomb energy of the nuclei. Also, gravitational energy becomes important.

S. G. Nilsson talked next. He showed Flerov's slide of Z versus N, with a red star of hope at  $^{298}_{114}$ , an island of stability. Nilsson used adjusted (need two points) parameters at  $A=165$  and  $A=240$  and extrapolated to  $A=300$  with checks around  $A=210$  (Tl and  $Pb^{207}$  not  $Pb^{209}$ ) (interpolations between  $A=165$  and  $240$ ). The secondary minimum is most pronounced at  $Z=94$  and disappears at higher Z and remains disappeared at  $Z=114$ .

Stan Thompson spoke next on the search for superheavy elements in 1) nature, cosmic rays; 2) from neutron irradiation reactors and nuclear explosives; and 3) heavy ions. Method #3  $^{248}_{98}\text{Cm} + ^{40}_{18}\text{Ar} \rightarrow ^{288}_{116}\text{Lv} + 4n$ . He used a rotating drum and looked for  $T_{1/2}$  of approximately 0.001 second. He then changed to an apparatus where recoils in a direct stream are caught in mica where S.F. is subsequently detected by etching. This had a half life sensitivity of nanoseconds to days. An upper limit of cross section of  $10^{-32}\text{cm}^2$  was established. Large angular momentum lowers the fission barrier which lowers the cross section for production of element 114.

Thompson looked for element 110 in the assumption that the electron structure is  $6d^8 7s^2$  (whereas that of platinum is  $5d^9 6s^1$ ). Therefore, he looked in platinum ores that contained neighboring elements. He also investigated

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

OFFICE DIARY  
GLENN T. SEABORG  
Chr USAEC, 1961-72  
FOLDER-PAGE. 95156

November 26, 1968

UNCL. BY DOE  
NOV 86

OFFICE OF THE CHAIRMAN

The President  
The White House

Dear Mr. President:

I have the pleasure of submitting the biweekly report on significant developments in the atomic energy program:

1. Your approval is being requested for the AEC to carry out a large underground nuclear detonation at the Pahute Mesa site in Nevada. The event, called BENHAM, is required as part of the development [REDACTED] **LETED**  
[REDACTED] The explosion will be in the range of 1.1 to 1.5 megatons yield and is scheduled for December 17. We plan to brief the Governors of the southwestern states on the nature and significance of this test about one week prior to the event. (~~SECRET~~)
2. We have received your approval to conduct a nuclear excavation experiment, called Project Schooner, at Pahute Mesa on December 2, as part of the AEC's Plowshare Program. The [REDACTED] explosive is expected to produce a crater 720 feet wide by 190 feet deep. (~~SECRET~~)
3. Increasing concern is being expressed to AEC by representatives of universities throughout the country about the effect of budgetary cuts they have experienced in their National Science Foundation grants. The cuts are apparently leading to the actual discharge of scientific and technical personnel, and the universities are turning to the AEC as a possible source of supplemental funds. The AEC's budget is unable to accommodate such requests.
4. Commissioner Costagliola and I visited the OEP classified location on November 21 and were given a thorough briefing on its function and operation.
5. Professor Horia S. Hulubei, Chairman of the Romanian Committee for Nuclear Energy, and I signed an agreement in Washington on November 22 for a reciprocal exchange

CLASSIFICATION CANCELLED  
WITH DELETIONS  
BY AUTHORITY OF DOE/OC

REVIEWED BY  
[Signature] 2/10/86  
DATE

[Signature] 7/15/86

program on peaceful uses of atomic energy. In addition to reciprocal scientific exchanges, it provides for an AEC exhibit in Romania during 1969. This agreement is the first to be signed by AEC with a Soviet Bloc country other than the USSR. (I have been aware of Professor Hulubei's scientific accomplishments for several years.)

6. The first financing of a nuclear power plant by a revenue bond issue that has been submitted for popular consent was approved by 80 percent of the voters of Eugene, Oregon, on November 5.
7. Allied Chemical Company has applied to AEC for a permit to build a plant to reprocess nuclear fuel on land that is now a part of AEC's Savannah River installation in South Carolina.
8. The Plutonium Export Association has been formed by U.S. private plutonium owners to take advantage of exemptions under the anti-trust laws that permit agreements to eliminate competition in export trade by establishing prices, terms of sale, and sales policy for exports.
9. The Spanish Government is reported to be studying the possibility of withdrawing from the European Organization for Nuclear Research (CERN) because of economic considerations. The Spanish Nuclear Energy Commission, however, believes that this would lead to adverse consequences for nuclear research in Spain. Specialized magazines and the Spanish press have mounted a campaign for continuing Spanish participation.
10. British Ambassador Dean will visit the National Accelerator Laboratory at Weston, Illinois (the site of the 200 BEV accelerator) on December 5 for general briefings.
11. At Department of Labor hearings on radiation standards for mining held on November 20-21, AEC stated its continued support for guidance issued by the Federal Radiation Council and approved on July 27, 1967. AEC considers that present information does not warrant DOL's using the lower standard at this time. Inter-agency discussions are continuing.

Respectfully yours,

Glenn T. Seaborg

cc: Mr. Bromley Smith, Executive Secretary  
National Security Council

possible alpha particles from  $^{190}\text{Pt}$  in platinum (found by Kohman and Macfarland, who had found a 5.5 MeV alpha). Thompson eliminated this by chemistry and found it was due to polonium. Thompson hoped this might be due to element 110. However, alpha peaks they found could be accounted for by thorium and uranium. They counted S.F. directly and set limits  $10^8$  to  $10^{14}$  years. They did x-ray fluorescence analysis--with a set limit of one part in  $10^3$  or  $10^4$ --the K electron binding energy for element 110 estimated (by Tucker et. al. at ORNL) is 200 KeV. Maynard Michel, by mass spectrographic analysis, set a limit of one part of 110 per million parts of platinum. The most sensitive methods for detection of superheavy elements would be activation analysis. They bombarded platinum with B, C, O, Ne at a range of energies from 10 MeV above barrier to top energy and found no S.F.--this could produce products over a range of Z and A. Because of the large angular momentum that would be induced by such heavy ions, they used protons--also with negative results. A limit was set of one part in  $10^{10}$  relative to platinum.

Perhaps very old platinum would have fission products that could be detected. They are trying to get two-billion-year-old platinum ore from South Africa. Peter Fowler of England has found elements with  $Z=103+4$  in cosmic rays but recent emulsion calibrations puts this in doubt.

Malik (University of Indiana) commented on vacuum polarization corrections, etc., to calculations of electronic structures. Schmitt spoke on neutron and charged particle-induced fission, fission isomers, etc.--a general review of fission.

I talked to Stan and he invited me to work with him when I return to Berkeley.

I flew back to Washington on Eastern Airlines Flight No. 192, leaving Miami at about 1:20 p.m. and arriving in Washington about 3:40 p.m.

I arrived at the D.C. office at 4 p.m.

At 4:20 p.m. the Commissioners and Bob Hollingsworth, Ed Bloch, and John Abbadessa met to discuss the BOB markup of our FY 1970 budget which was received last week. It isn't too bad--it includes \$102 million for the 200 BeV Accelerator, funds for NERVA, pretty good equipment money, but makes no provision for the Omnitron, and cuts back the Molten Salt Reactor and the HTGR. We will appeal these and other items.

Lynne and Bill arrived last night to spend Thanksgiving with us. Chet and Lynn Joy also arrived late tonight to spend Thanksgiving with us.

#### Thursday, November 28, 1968- Thanksgiving Day

Jody Cobb arrived about noon. Lynne and Bill, Chet and Lynn, Jody, Eric and I took a two-hour hike in Rock Creek Park. Allyn Snyder arrived during our hike. We all had Thanksgiving dinner about 4 p.m.

I read a large number of AEC papers that had accumulated during my absence earlier this week.

#### Friday, November 29, 1968- Germantown

Chet and Lynn Joy left this morning.



At 9:50 a.m. I had a telephone interview with John Hultman (CBS News, Chicago) on the 200 BeV Accelerator and its groundbreaking ceremony scheduled for Sunday, December 1st.

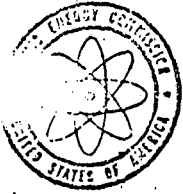
At 10:25 a.m. I presided over Executive Session (Adjudicatory) 182, at which the Commission agreed to allow the initial decision in regard to the Raleigh City Board of Education, Raleigh City Administrative Unit and the Board of Public Instruction, North Carolina, Docket No. CR-612, to become final on this date.

At 11 a.m. I presided over Information Meeting 852 (notes attached). We agreed on the items in the FY 1970 budget to appeal to the BOB which included: 1) shutdown of the three reactors, 2) Cascade Improvement, 3) test readiness, 4) more money for the HTGR, MSBR, and LMFBR, 5) more for naval reactors, 6) more for Rover and SNAP, 7) Omnitron R&D, 8) more for the Meson Facility, and 9) money for the artificial heart program.

Commissioner Ramey argued again against a public information program for BENHAM (high yield Nevada shot), but I, and the other Commissioners, insisted that this is the best insurance that the program can go forward and that the public has the right to be informed.

At 12:20 p.m. I had lunch with Julie Rubin and Arnie Fritsch (who is back from Gulf General Atomic in San Diego for a visit with his family, who have not yet moved).

Jody's friend Philip Hauptman came over and had dinner with us and spent the night. Late in the evening Chris Camp, who had been with Ravi in India for the past month or so, arrived from India via Germany. She spent the night with us.



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WASHINGTON, D.C. 20545

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COPY NO. 2

November 29, 1968

INFORMATION MEETING 852

11:00 a. m. , Friday, November 29, 1968, Room A-410, Germantown Headquarters

1. November 27 Letter from Edward Bauser, JCAE, re Uranium for Italian Nuclear Ship

The Commission requested:

- a. Transmittal of Commissioner Tape's Letter to Sir William Cook.
- b. Low-key staff discussion with the UK.
- c. An early meeting with Admiral Rickover.  
(AGMIA-SECY)

2. Memorandum for the Federal Radiation Council re Guidance for Control of Radiation Hazards in Uranium Mining

Approved. (Rosen)

3. Special Panel Report on Test Safety

The Commissioners agreed Dr. Hornig should be advised that the report should not be released before the Benham event. (Rubin-Rosen-AGM)

4. Dr. John Foster's, Director of Defense Research and Engineering, Request re Production of Armor Piercing Shells (Flechettes)

The Chairman requested additional information. (AGMMA)

5. Seminar with Industry re Gaseous Diffusion Plants

(SECY)

6. Agenda for the Week of December 2, 1968

Approved. (SECY)

W. B. McCool  
Secretary

12:15 p. m.

PRESENT:

COMMISSIONERS:

Chairman Seaborg  
Commissioner Ramey  
Commissioner Tape  
Commissioner Johnson  
Commissioner Costagliola

STAFF:

Mr. Hollingsworth  
Mr. Bloch  
Mr. Rubin  
Mr. Rosen  
Mr. Griffin  
Mr. O'Donnell  
Mr. Helfrich  
Mr. Ryan  
Mr. Kull  
Mr. McCool  
Mr. Kratzer\*  
Mr. Wegner\*  
Mr. Spingarn\*

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Secretary

\*Attendance by Topic (s)

Saturday, November 30, 1968 - D.C.

I read various AEC papers and worked on my speech "Telling It Like It Is- Making It Like It Could Be", to be given at the International Platform Association Winter Meeting on December 17th in Cleveland, Ohio.

Lynne, Bill, Jody, Phillip, Chris and I took a two and a half hour hike in Rock Creek Park. All of our visitors had dinner with us, near the end of which we were joined by Bill Puppa, who is home from the University of Michigan.

Sunday, December 1, 1968 - Chicago - D.C.

I flew from Andrews Air Force Base (leaving at 12 noon) on a Jetstar (with Captain Davis) to Chicago's O'Hare airport with Commissioners Ramey and Tape, Julie Rubin, John Eriewine, Spof English, Paul McDaniel, Congressman Melvin Price, Ed Bauser and William Wallenmeyer. Due to a heavy snowstorm we didn't land until about 1:40 p.m. although we were due at 12:55 p.m. For a while it looked like we would have to land in Milwaukee. We were met by Ken Dunbar; Tape, Price, and I rode with him in an AEC car (with a driver) to the National Accelerator Laboratory near Batavia (at the village of Weston). There the groundbreaking ceremony for the Linac part of the 200 BeV Accelerator was held in a temporary tent. Bob Wilson, Director of NAL, presided and introduced the speakers. I gave the main talk followed by shorter talks by Price, Ramey, Norman Ramsey, James R. Sanford (Chairman, NAL Users' Organization) and Tape. Following the talks, Wilson announced that I would use the spade (a special gold plated one was prepared for the occasion) for the groundbreaking, which I did with Wilson; there were numerous cameras and television cameras recording the action. Some 500 or more people were present, standing up during the entire ceremony.

We then went to the NAL Village for an open house and reception in the temporary headquarters building (where Wilson has his office). Many scientists from high energy physics laboratories around the country, as well as NAL staff and many visitors were at the reception and ceremony. I was interviewed via phone by radio station WCFL; questions concerned the 200 BeV Accelerator and the value of high energy physics. We flew back to Andrews Air Force Base on the Jetstar, leaving about 6 p.m. and arriving about 8:50 p.m.; the same group was aboard, except for Jack Rosen who took Wallenmeyer's place.

Jody and Phil returned to New York during the day.



Groundbreaking for the Linac ceremonies at the National Accelerator Laboratory, Batavia, Illinois, December 1, 1968



Linac groundbreaking ceremony, December 1, 1968

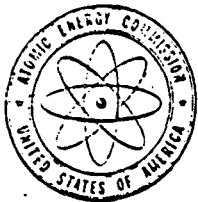
Robert R. Wilson and Seaborg holding the shovel which broke the ground for the first permanent building at the Linac, December 1, 1968

Monday, December 2, 1968 - D.C.

At 9:50 a.m. I called Ted Sherburne (Science Service) regarding his note on the Rosenstiel Foundation. I said I would be in New York on December 13th and could see one of their people at that time. Sherburne said he would check and let me know. I told him that I met Robert B. Walder, editor of an organization called "Technically Speaking," while I was in Miami on November 26th. They service radio, television, etc. He wanted me to tell him about transuranium elements, etc. Sherburne will check to see what he can find out about him.

At 10 a.m. I presided over Information Meeting 853 (notes attached).

At 11:15 a.m. I presided over Regulatory Information Meeting 320 (notes attached).



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WASHINGTON, D.C. 20545

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COPY NO. 2  
December 2, 1968

INFORMATION MEETING 853

10:00 a.m., Monday, December 2, 1968, Chairman's Conference Room, D. C.

1. Proposed Letter to Joseph Califano re AEC Material for "State of the Union" Message

Approved with an addition. (AGM)

2. Dedication of the Zorita Facility, Madrid, Spain, December 12, 1968

Staff representation is requested. (AGMIA)

3. Speech by Dr. Manson Benedict re Diffusion Plant Disposition

The Commissioners' comments should be addressed to Commissioner Johnson by 1:30 p.m. today. (Helfrich)

4. Chairman's Conversation with Mr. Philip Hughes, BOB, re November 18 Letter to the BOB Regarding Amended Section 11 of the Federal Water Pollution Control Act

5. Seminar with US Industrial Representatives and Visit to Oak Ridge

To be scheduled in early January. (AGMP&P-SECY)

6. Mr. Vinciguerra's November 27 Memorandum re Space in Rosslyn

No further staff action is required at this time. (AGMA)

7. Postponement of the Schooner Event
8. Commissioners' 2:30 p. m. Meeting with the Director, BoB, Today
9. Executive Session Personnel Items
  - a. Area Manager, Los Alamos Area Office  
Approved subject to a check.
  - b. Nominees for the Arthur S. Fleming Award  
Approved with a possible addition.  
(EAGM-PER)
10. OST Special Panel Report  
Commissioner Tape reported Dr. Hornig has no plans to release the report.
11. AEC 610/140 - Proposed U. S. Position for December 5 and 6 Meeting with the U. K. on Classification of Gas Centrifuge  
Approved. (AGMIA)
12. AEC 226/433 - German Reaction to U. K. Ratification of the NPT  
Noted. (SAD)
13. AEC 141/115 - Proposed Arrangements with the Scientific Community Regarding Seismicity from Underground Tests  
Approved. (AGMMA)
14. Mr. Harris' November 29 Memorandum re Proposed DOD Statement in Favor of Nuclear Testing  
The revised statement is approved. (PI)



15. AEC 374/197 - Nuclear Weapons Improvements

Approved as revised. (AGMMA)

16. NATO Planning Group Discussions

Commissioner Ramey requested a report. (AGMMA)

17. AEC 25/401 - Pershing Weapon System Safety Rules

Approved. The Commissioners noted the language in the last paragraph of the letter to Dr. Walske re the AEC intention to discuss further with the DOD the explicit provisions for the use of PALs. (AGMMA)

18. AEC 867/148 - Increase in Nuclear Weapons Deployment Authorization

Approved. (AGMMA)

19. AEC 809/128 - IAEA Request for ANM Targets for Bulgaria

Approved. (AGMIA)

20. AEC 811/214 - Proposed Workshop on Project Gasbuggy at LRL, Livermore

Approved subject to further discussion with Commissioner Tape. (PNE)

21. AEC 588/68 - Background Patent and Technical Data Requirements  
Relating to Fast Breeder Reactor Research and Development

Approved. (DC)

22. AEC 620/59 - United States of America and Holmes and Narver, Inc.,  
v. City of Los Angeles

Noted. (GC)

23. AEC 858/26 - Possible Potential Conflict of Interest

Noted. The Commissioners requested Messrs. Lumb's and Rodger's service with the Committee terminate on June 30, 1969. (SMM)

24. Pending Contractual Matters Report No. 285

Noted with a request. (DC-BM)

25. NTS Events (See General Giller's November 27 Memorandum)

Noted. (AGMMA)

26. Arrangements for Enrico Fermi Award Ceremony - December 2, 1968

Noted. (SECY)

27. Commissioners' Meeting with Admiral Rickover, 2:30 p.m., December 18, 1968

Scheduled. (SECY)

W. B. McCool  
Secretary

11:15 a.m.

PRESENT:

COMMISSIONERS:

Chairman Seaborg  
Commissioner Ramey  
Commissioner Tape  
Commissioner Johnson  
Commissioner Costagliola

STAFF:

Mr. Hollingsworth  
Mr. Bloch  
Mr. Brown  
Mr. Hennessey  
Mr. Rubin  
Mr. Kull  
Mr. McCool  
Mr. Harris\*  
Dr. Friedman\*  
Mr. Winter\*  
Mr. Tesche\*  
Mr. Erlewine\*  
Mr. Smith\*

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Secretary

\*Attendance by Topic (s)



UNITED STATES  
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WASHINGTON, D.C. 20545

REGULATORY INFORMATION MEETING 320

11:15 a.m., Monday, December 2, 1968, Chairman's Conference Room, D. C.

1. November 1 Letter from A. E. Schubert, General Electric, to Mr. Hosmer re State of AEC Regulatory Program

Discussed.

2. AEC-R 8/32 - Amendments to 10 CFR Part 20 - Implementation of Requirements for Specified Categories of Sciences to Report Radiation Exposure Information

Approved subject to a prior check with the JCAE and the BOB.  
(ADRA-RPS)

3. Mr. Price's Report on the Hearing on Zion, Commonwealth Edison Company, Docket Nos. 50-295 and 50-304
4. Consolidated Edison Strike

W. B. McCool  
Secretary

11:40 a.m.

PRESENT:

COMMISSIONERS:

Chairman Seaborg\*  
Commissioner Ramey\*  
Commissioner Tape  
Commissioner Johnson  
Commissioner Costagliola

STAFF:

Mr. Price  
Dr. Beck  
Mr. Hennessey  
Mr. Henderson  
Mr. Rubin  
Mr. Wells  
Mr. Erlewine  
Mr. McCool

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General Counsel  
Secretary

\*Partial Attendance

At 11:20 a.m. I met with an MWD group to discuss possible postponement of a decision by the MWD Board to delay the desalting project until 1975. Present were Joseph Jensen, William Farquhar, William Peterson, Henry Mills, Frank Clinton, Ray Ferguson, and Robert Will of MWD; Commission Ramey, Milt Shaw and Bob McFarren of AEC; and Ray Durante of OSW. The MWD group agreed to postpone the decision by extending our agreement for three months beyond its expiration date of December 31st, but insisted that they will not agree to San Onofre as a site but only Bolsa Island.

At 12:55 p.m. I received a telephone call from Vernon I. Cheadle (Chancellor, University of California, Santa Barbara). Cheadle was calling from the Davis campus. He is trying to come up with a list of candidates for the position of Chancellor at Davis. Hornig's name came up, and Cheadle asked whether I thought he would have any interest in the job. I said I didn't know; furthermore, he has just accepted a very good position with Eastman Kodak in Rochester, as well as the University of Rochester. They would want him as of July 1, 1969. I said Hornig is a good man; of course, I would have to evaluate him against someone else, but I did feel he could do a good job. He said they also had the name of Gropstein, a biologist from Stanford who went to San Diego; he was elected to the National Academy of Sciences last year. I said I didn't know him, but I am in favor of getting someone with that kind of stature. Cheadle asked about Mrs. Hornig. I said she is an individual in her own right - has a Ph.D. in chemistry - and is a wonderful hostess. I mentioned that I would be visiting my son Dave at Davis on December 4th; Cheadle said he would keep that in mind.

At 1 p.m. I had lunch in my office with Julie Rubin and Justin Bloom.

At 1:35 p.m. I called Walt Rostow, the White House, to ask if any decision has been made regarding the Israeli desalting project. He said he didn't think so but understood that a paper, containing the alternatives, would be going to the President. He assumed it would contain AEC views but if it did not he would make sure we knew about it so we could submit them. I said that whatever happens we hope the proposal could be discussed with the Israelis on as broad a base as possible, and if they are interested in nuclear desalting we could include some assistance for that aspect since it is important that we look for ways to use our experience and technology. He said he was glad that I reminded him of this, would check the status of it and keep us informed. He asked about the status of the Los Angeles desalting project. I told him it had fallen apart and explained the situation to him. I told him we had met with the MWD people today trying to get them to postpone their latest decision on it.

At 2 p.m. Commissioner Tape and I met with Donald Hornig and S. M. Keeny in Hornig's office to discuss handling of the Pitzer Panel report on the safety aspects of Nevada underground testing. We agreed we might release the report after the BENHAM shot which is scheduled for December 17th.

The SCHOONER (Plowshare) shot which was ready to go today was postponed due to weather and the predictions are for several more days of postponements.

At 2:30 p.m. Commissioners Ramey, Tape, Johnson, Costagliola and I, plus Bob Hollingsworth, John Abbadessa, Vic Corso, George Kavanagh, Spoff English and Frank Baranowski met with BOB Director Charles Zwick, plus BOB people - Young, Hughes, Schuldt, Fred Hoffman, and Sam Cohen - to press our appeal for the restoration of about 20 items on our FY 1970 budget. About an hour after the meeting we got our response which restored about five of the items, not

including the Omnitron A&E, the Cascade Improvement, the Pu production reactors, the Molten Salt Reactor funds, and Plowshare excavation.

At 5:30 p.m. Helen and I attended the Fermi Award Ceremony in the East Room of the White House. Some 50 to 100 people were present. President Johnson presented the 10th Fermi Award to John A. Wheeler in the presence of Mrs. Wheeler, his father, his son, and grandson. I opened the ceremony with a few remarks, then President Johnson made his remarks, I read the citation, the President presented the citation, - a \$25,000 check and gold medal to Wheeler - and Wheeler made his response. The President was in a very good humor and made some very flattering remarks about me during his talk and also as I prepared to read the citation. He said that I have been consistently successful in getting what I want in my budget appeals to him and I responded by suggesting that this might be an invitation with regard to this year's budget. Following the ceremony we went to the Blue Room where pictures were taken of the Wheelers with the President and also of the five Commissioners with the President. (Copy of the press release is attached.)

Helen and I then went to the John Quincy Adams Room of the State Department for the reception. Dr. and Mrs. John Wheeler, Dr. and Mrs. Donald Hornig, and the four Commissioners and their wives were in the receiving line. Hundreds of people came to pay their respects to the Wheelers.

Tuesday, December 3, 1968 - D.C - San Francisco

At 10:05 a.m. I presided over Information Meeting 854 (notes attached).

At 12:30 p.m. I had lunch in the office with Julie Rubin, Justin Bloom, and Stan Schneider to discuss future programs, speech preparation, etc.

At 1:30 p.m. I met with Ralph Sier (Department of Justice) in Spoff English's D.C. office, along with English, Eugene Fowler, and Dan Miller, to discuss possible use of AEC laboratories (such as Argonne, Oak Ridge, and Brookhaven) in crime detection and prevention activities.

At 2:30 p.m. John Abbadessa and I met with Charles Zwick, Young, and Schuldt of the BOB in Zwick's office. We discussed the items which Zwick had not allowed in our budget appeal yesterday, with the view toward finding a compromise that would make it unnecessary to go to the President. I said we accepted their decision to disallow the Cascade Improvement Program, the \$6 million for atmospheric test readings, the R&D for naval reactors, the authorization of the LMFBR demonstration plant, and the \$7 million for the LMFBR operating program. I said we might take some of these items to the new Administration. I said, however, we would like to work out a compromise wherein BOB would restore two of the three plutonium production reactors, some money for the molten salt breeder reactor program, some money for the artificial heart program, at least one of the Plowshare excavation shots, some more expenditure money for the Los Alamos meson physics facility, and the A&E for the Omnitron.

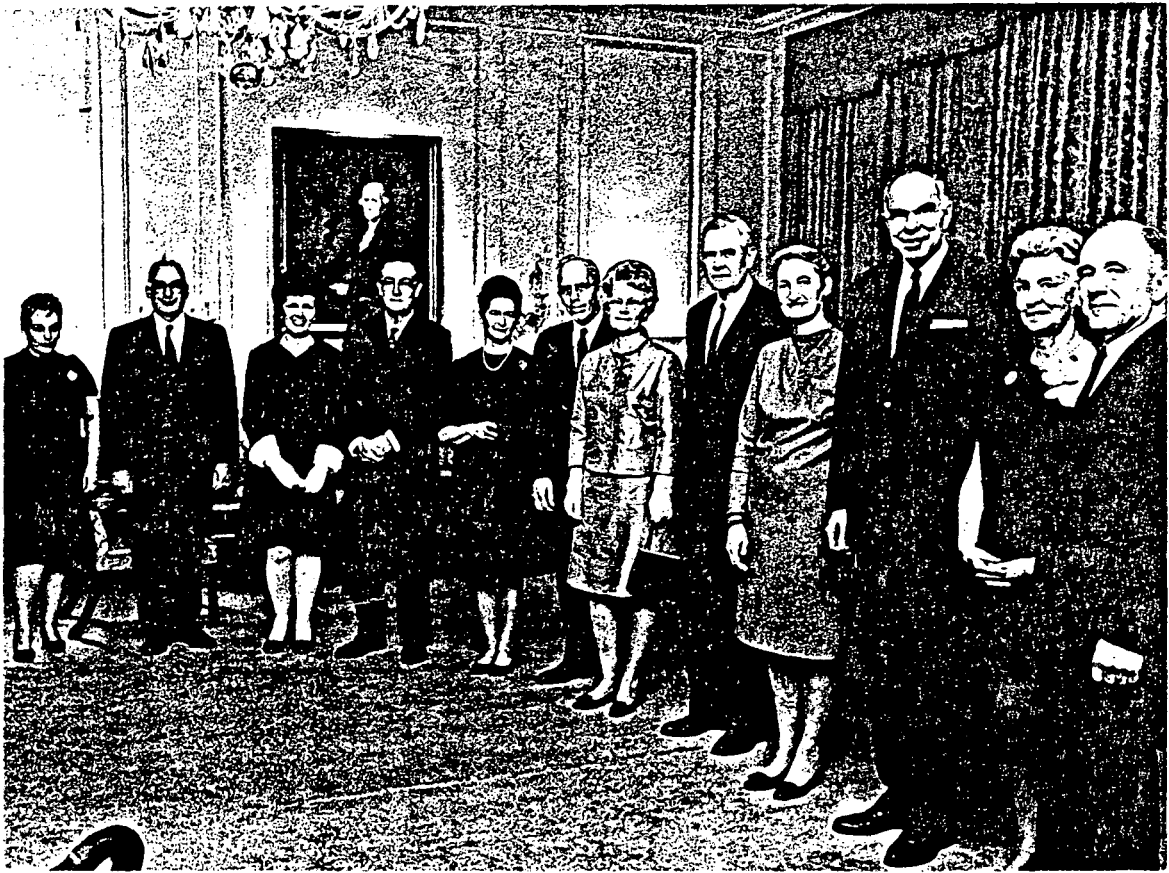
Zwick said he would restore one (the Savannah River reactor) of the three production reactors and would shut down two at Hanford (the "C" reactor and one of the "K" reactors operating sequentially), but he would check out the political aspects of this in the state of Washington before making the final decision. He said he would allow one Plowshare shot - GONDOLA. He said he would not allow any of the other items, but he would call to the attention of the President the request for A&E for the Omnitron, pointing out that I had



Fermi Award Ceremony at the White House, December 2, 1968



President Lyndon Johnson, Seaborg and John A. Wheeler at the Fermi Award Ceremony, December 2, 1968



Fermi Award Reception, Department of State, Washington, D.C., December 2, 1968

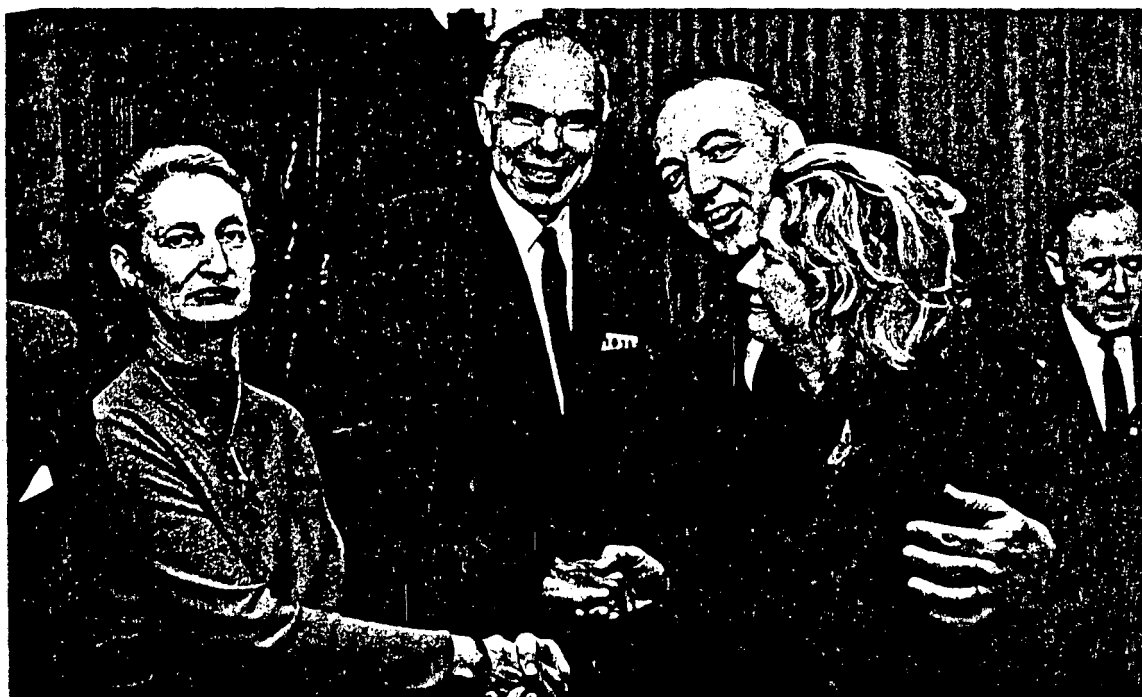
L to R: Mr. and Mrs. Frank Castagliola, Mr. and Mrs. James Ramey, Mr. and Mrs. Wilfred Johnson, Dr. and Mrs. Gerald Tape, Seaborgs, Mr. and Mrs. John Wheeler



L to R: Donald Hornig, Helen Seaborg, Seaborg and General Groves at the Fermi Award Reception, December 2, 1965



Donald Hornig, Helen Seaborg, Seaborg, Mr. and Mrs. John Pitzer at the Fermi Award Reception, December 2, 1968



Glenn and Helen Seaborg with Dr. and Mrs. Arnold Fritsch at the Fermi Award Reception, December 2, 1968



## OFFICE OF THE WHITE HOUSE PRESS SECRETARY

## THE WHITE HOUSE

EXCHANGE OF REMARKS BETWEEN  
THE PRESIDENT, DR. JOHN A.  
WHEELER, PRINCETON UNIVERSITY,  
AND DR. GLENN SEABORG AT THE  
ENRICO FERMI AWARD CEREMONY

## The East Room

AT 5:45 P.M. EST

THE PRESIDENT: Chairman Seaborg, Dr. Hornig,  
Distinguished Ladies and Gentlemen:

Twenty-nine years ago, a scientific paper was published which bore a very simple title: "The Mechanism of Nuclear Fission." That paper became the cornerstone for all the later understanding in this field; and its publication was a step forward unlocking the fantastic secrets of the nuclear age.

Today, we have come here to the historic East Room of the White House to honor the man who, with Neils Bohr, wrote that historic paper -- Dr. John A. Wheeler of Princeton University: scientist, teacher, innovator, pioneer of modern physics, man of thought and man of action.

To the average layman, merely to read the list of Dr. Wheeler's achievements is to realize how incredibly complicated this world in which we live has become. Most of us are not so surefooted as you are, Dr. Wheeler, in the complex world and in the difficult vocabulary of the nuclear scientist.

But there is one thing that all of us -- laymen and scientists alike -- can understand: It is the idea that the human mind must be free to range as far and as freely as it can -- unfettered and unconstrained. You are one who has chosen, like Ulysses, "To follow knowledge like a sinking star, Beyond the utmost bound of human thought."

Our hope is to sustain and to support you in that voyage.

Today, we honor a great scientist with the Enrico Fermi Award of the Atomic Energy Commission. In receiving this award, he joins such explorers of the scientific frontier as Dr. John von Neumann, Dr. Eugene Wigner, and that great and that good and that talented public servant, of whom there is no better, Dr. Glenn Seaborg, and Dr. Robert Oppenheimer.

But in honoring him, we honor in addition and also the idea of excellence -- and we honor all who make the pursuit of knowledge their vocation.

MORE

(OVER)

Dr. Wheeler, it is a very great pleasure to me to welcome you and Mrs. Wheeler -- and three other generations of Wheelers -- here at the White House today. You do us honor by your visit.

You give your country great satisfaction and assurance.

Dr. Seaborg -- this may be the last ceremony that he and I will be in together. It may even be a last appearance unless he comes in as he usually does at the budget. I will let you in on a little secret. I think he is the most difficult man in government to say "No" to, because he is so pure, so conscientious and such a great public servant.

Dr. Seaborg, this is an award for Dr. Wheeler, but I want to also give you one before I leave.

DR. SEABORG: Thank you. I can't resist the opportunity to say that perhaps I will take advantage of what seems like almost an invitation.

THE PRESIDENT: We should know that as modest as he is, he doesn't require an invitation.

DR. SEABORG: Mr. President, I would like to read the wording of the Enrico Fermi Award to John A. Wheeler and it says: "This award is for his pioneering contributions to understanding nuclear fission and to developing the technology of plutonium production reactors and his continuing broad contributions to nuclear science."

I might add, ladies and gentlemen, this award is signed Lyndon B. Johnson, the President of the United States and, also, incidentally by the five Atomic Energy Commissioners.

MORE

DR. WHEELER: Mr. President, it means much to me that this award comes from the American people. It means much to me that you are the one who has presented it.

It also means a great deal to me that it has associated with it the name of Enrico Fermi, the immigrant from the Old World to America, who gave the new World the power to preserve the freedom of the Old World.

On a pier in New York almost 30 years ago, on the 16th of January, 1939, I stood beside Enrico Fermi as a steamship docked and Neils Bohr disembarked.

He gave the two of us the first word of the discovery of fission of uranium in Germany. What a privilege I feel it to have been to participate in the great developments that began with those few words.

How deeply honored I am to have had as colleagues wonderful men like Bohr, Fermi, Breit and Wigner and all the others who were to join in the enterprise in the ensuing months and years.

How happy I am to have had the good fortune to go on from the first Chicago reactor to the war-time Hanford plutonium production reactor and to collaborate with the kind of men who make American industry and technology what it is -- men from ammonia, men from cellophane and men from nylon, men who know what it is to be practical, to be economical, to be humane, to be on time because pioneers also know what it is to meet the competition of the market.

In later days when the issue was whether a hydrogen bomb could be built and, if so how, I was favored indeed to have for colleagues men like Teller, Toll, Ford, Willets and Henyey and many others and to be able to work with them in teamship with Los Alamos and Livermore.

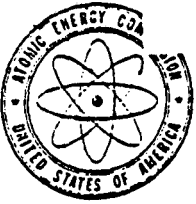
I accept this award in the name of these wonderful colleagues over the years in recognition of their gifts of mind and heart to the defense of America and the Free World.

I accept it also with deep regard for the handful of young men who continue to contribute important new ideas in our nuclear weapons research centers today. Their morale, and even more important their power to take new steps forward, depend far more than the public realizes upon the degree of public support that they can feel in the air.

Mr. President, I express again my deep gratitude that I have been permitted to work with inspiring colleagues over the years to forge a world safe for our children, and our children's children, and safe for liberty.

END

(AT 5:55 P.M. EST)



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

COPY NO. 22  
December 3, 1968

INFORMATION MEETING 854\*

10:05 a.m., Tuesday, December 3, 1968, Chairman's Conference Room, D. C.

1. Restorations of AEC Appeal Items to the BoB - Fiscal Year 1970 Budget

The General Manager and Controller reviewed with the Commission the results of yesterday's meeting with the Director, BoB (see Mr. Abbadessa's December 3 memorandum to the files). The Chairman will see Director Zwick today to appeal the restoration of two production reactors and request that the proposed reduction in the Flowshare Program be flagged for the attention of the President. The Artificial Heart Program, the Molten Salt Breeder Reactor Program, and the Omnitron AE will also be mentioned. If the reclama and request are granted, the Chairman will not need to see the President. (OC)

2. Commissioner Johnson's Report on His Discussion this Morning with Mr. Robert Ginna re the Peachbottom Facility

3. Chairman's Report on December 2 Discussion with Dr. Hornig re the OST Special Panel Report

W. B. McCool  
Secretary

10:50 a.m.

PRESENT:

COMMISSIONERS:

Chairman Seaborg  
Commissioner Ramey  
Commissioner Johnson

STAFF:

Mr. Hollingsworth  
Mr. Abbadessa  
Mr., Corso  
Mr. Rubin  
Mr. McCool

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Commissioners  
General Manager  
General Counsel  
Secretary

discussed this with the President on several occasions, most recently a year ago at the Ranch in connection with the FY 1969 budget, at which time the President referred to his disallowance of this item as a postponement.

At 3:30 p.m. I received a telephone call from Don Kirkman (Scripps-Howard newspapers). Kirkman is preparing an article on Lee DuBridge, and he is calling a few scientists around the country to get their impressions regarding his appointment as Science Adviser to President Nixon. I said I think this is a fine appointment. Kirkman characterized him as an academic man for all seasons: space, research, the atom, etc. He asked whether I thought he would point the Administration toward any particular area; I said I didn't think he would specialize. I pointed out that he is basically a nuclear scientist - a physicist. I have known him for more than 30 years, and we have been guests in one another's homes. Kirkman asked whether we ever worked together; I replied that we had corresponded, and he told me about his scientific results before they were published because at that time I was compiling a table of radioisotopes. Where we actually worked together was on the first GAC of the AEC, from 1947 until my term expired in 1950.

Kirkman said he has the feeling that the only reason DuBridge was not on the Manhattan Project was because he was already at MIT working on radar. I said that was exactly right. He asked whether I would say that DuBridge made a contribution to the basic knowledge that made the Manhattan Project possible, and I said yes. He asked whether he was connected at Cal Tech with nuclear projects; I said I didn't believe he had ever collaborated and published papers as a co-author. He asked, if in all the years I had known DuBridge, had he ever been more interested in one aspect of the atom than another. I said there was no specialization. Did he have any great interest in peaceful uses of the atom? I said he was very interested in this when he was on the GAC.

Kirkman returned to the theme of his being "such an academic man for all seasons," and that "he has been all over the field." I said you could describe that in terms of breadth, too, and that he is a broad man in his interests beyond science. He asked whether DuBridge had opposed the cessation of nuclear testing in the atmosphere. I said, no; I have the vague feeling he was opposed to the unilateral stopping of testing back in the moratorium days. But I don't recall his opposing the Limited Test Ban Treaty that was signed in Moscow in August 1963. It was brought out that DuBridge testified in Oppenheimer's behalf. I said he has an independent mind.

At 4 p.m. I called William R. Corliss regarding his letter of November 24th concerning the book we plan to co-author. I said I feel the outline is all right. I like the idea of a shorter book; I would like to keep the price of the book down so that more people will feel able to buy it. Corliss said he would strive for 100,000 words - and it might even be less. At the moment, my choice of title would be Man and the Atom, but I'll continue to think about this. Regarding a publisher, I said that my mentioning E. P. Dutton was off the top of my head because of the fine job they did for Elements of the Universe, which sold some 30,000 copies. I said I would send him a copy of that book; also, I would look up the name of my contact at Dutton. Corliss said he would do all the writing, and preparation of copy. Regarding royalties, he suggested two-thirds for himself and one-third for me; I said fine, or anything else that Corliss thinks would be fair. I said my feeling is that the book should be written for the good of the field, and I really don't expect to make anything out of it. Regarding the nuplex, Corliss said he could make that chapter twice as long. I asked whether he makes a living by writing,

and he said he does; however, 90% of his work is on a contract basis, rather than royalties. A future project of his will probably be a technology survey for NASA on automation. I said I would be glad to write the introduction for his book on the Tele-Operators. He said that will be combined in one volume, and will be published by Wiley.

Justin Bloom and I flew from Dulles to San Francisco on TWA flight No. 63, leaving at 6 p.m. and arriving at 8:20 p.m. We were met by Ward Blackmon who drove us to the Durant Hotel in Berkeley where we checked in. I then visited with Pete in his apartment, No. 103 at 2335 Dwight Way, and met his roommates, Bob Jansen and John Harling.

Wednesday, December 4, 1968 - San Francisco

I had breakfast in the Durant Hotel coffee shop with Justin Bloom. Bloom and I went up to the Radiation Laboratory. I conferred with Doral Buchholz who gave me a copy of James' and Morgan's Ph.D. theses and James' Metallurgical Laboratory notebook for July 1944 to April 1945 so that I can use them to establish the dates for the discovery of elements 95 and 96 in connection with my planned talk on this subject.

We then went to Building 71 (HILAC) where we conferred with Al Ghiorso, Matti Nurmi, Dr. and Mrs. Kari Eskola about their evidence for element 104 (two isotopes with similar alpha decay properties from californium-249 plus  $C^{12}$  and  $C^{13}$ ) and element 105 (from californium-249 plus  $N^{14}$  and  $N^{15}$ ). There is a puzzle about the isotopic assignments of the element 104 activities and we discussed the data in some detail in order to try to resolve this. I then discussed with Ghiorso the alterations that might be made in the HILAC in order that it might accelerate uranium ions - this is to be undertaken as a backup procedure in case the Omnitron is not approved.

Blackmon then drove me out to Davis to visit with Dave. I met him in his apartment at No. 1, 1603 H Street. We went to the Beckett Hall dining room and had lunch joined by Dave's friends Tung Fu (who may visit us in Washington at Christmas) and Steve Reuben (a political science major). After lunch we talked in the lounge. I learned that Dave is doing fine in physics and zoology, and very poorly in botany. I urged him to drop botany, which he said he would try to do today - he headed for the Dean's office as I left him.

We drove back to Berkeley. I went to see Pete in his apartment. He is quite disturbed because he hasn't been able to get his term papers written. He is going to see his professor (David Bertelson, Assistant Professor of History), about the problem. He has received the notice for his physical examination for induction into the armed services for Friday of next week (December 13th).

I then went out to our house in Lafayette. I found Mrs. Carney quite agitated about the behavior of the kids in the neighborhood. They broke into our house and muddied it up during the Carney's trip to Mexico last week. Also they do things like cutting the ignition wires of cars and perhaps even tried to set fire to the house. Our empty lots are a congregation point and apparently are a site for marijuana smoking, sex activities, etc. Mrs. Carney thinks the Robert Keyston children are ringleaders (John, aged 12). I visited the Alexanders and they were unaware of any exceptional neighborhood problem with the kids.

I then returned to the Durant Hotel to prepare for the dinner of the Council of Graduate Schools at the San Francisco Hilton. I attended the reception and then a dinner in the Imperial Ballroom. I met friends from all over the country - some 280 deans or their representatives were present, including Sanford Elberg. Gustave O. Arlt presided and made a short report (as President). Dean Joseph McCarthy of the University of Washington, Chairman of the Council of Graduate Schools, introduced me and I spoke on "The Government-University Partnership in Graduate Education." Before and after the dinner I was interviewed by representatives of television and radio; by Frank Knight of CBS radio, by ABC-TV (Channel 7), and by Knowles Robertson of KNEW radio (Metro Media).

Thursday, December 5, 1968 - San Francisco

I had breakfast with Justin Bloom in the coffee shop of the Durant Hotel.

We went up to the Radiation Laboratory. I conferred with Isadore Perlman (he was in his archeological laboratory) concerning the problems with children and our Lafayette home (he is unaware of any great difficulties) and my accommodations in the chemistry building when I return to Berkeley.

I called Stan Thompson at home. He has the flu. We talked about my reference to his work in my talk this afternoon.

I talked to Tape (who is at Livermore) and Hornig (in Washington) concerning continuing problems about the preannouncement and seminar on the BENHAM shot.

I met in Ed McMillan's office with McMillan, Harold Fidler, and Denis Keefe. Keefe brought me up to date on progress on the Electron Ring Accelerator (ERA) - they have formed an electron ring and loaded it with positive ions; next they will try to minimize external focusing and accelerate the ring and ions.

I met in Perlman's office with Al Ghiorso, Iz Perlman, Bob Main, and Justin Bloom to discuss Mann's and Ghiorso's ideas for the SuperHILAC (to cost \$3 million) and the attached synchrotron (which would accelerate neon ions to 300 MeV per nucleon for medical research, additional cost \$3 million, as a possible substitute for the Omnitron if we should fail to get it).

I had lunch in Perlman's office with Perlman, Bloom, Ghiorso, Earl Hyde, Burris Cunningham, Ken Street, Frank Asaro, Jack Hollander, Main, and Elmer Kelly.

I discussed with Hollander and Perlman their idea for moving Kay Way's former Oak Ridge nuclear data group to Berkeley to combine it with Hollander's table of isotopes effort.

Bloom and I went down to Dean Harold Johnston's office in Latimer Hall. Johnston and I discussed the terms under which I might resume my professorship at Berkeley, i.e., essentially as a research professor directing the work of graduate students.

Dr. Joel Hildebrand joined us and we made a tour of Latimer and Hildebrand Halls.

We then went to the coffee hour in the lounge room of Latimer Hall where I met Chemistry Department staff and graduate students. We then went to Room 100,

Lewis Hall, where I gave my talk to the regular Thursday afternoon College of Chemistry Research Conference on "New Outlook on the Transactinide Elements," illustrated with slides, followed by questions.

I then went to dinner at the Faculty Club with a group from the Chemistry Department - Iz Perlman, George Pimentel, Melvin Calvin, Bob Connick, Charles Wilke, Leo Brewer, Jim Cason, Bill Dauben, Dick Powell, Gabor Somarjai, and Harold Johnston. We talked largely about the students' problems on the Berkeley campus.

I then walked to Pete's apartment. Pete joined me and we went to Larry Blake's for a bite to eat. We then took a walk down Telegraph Avenue to Stuart Street, and down Stuart Street to Ellsworth Street, where we walked by our old home at 2808 Ellsworth Street. We walked back to Pete's apartment, where I left him, and walked back to the Durant Hotel.

Bloom went to visit his parents in south San Francisco with the plan to fly back to Washington on Sunday.

Friday, December 6, 1968 - San Francisco - D.C.

I had breakfast in the Durant Hotel coffee shop. At 7:45 a.m. Ward Blackmon picked me up and drove me to the airport (San Francisco International). Because of heavy fog, it was necessary for me to change my reservation from TWA flight No. 64 to United flight No. 50, departing about 10 a.m. and arriving at Dulles airport at 5:35 p.m. I read AEC papers, sent out last evening, all the way across the country, including a letter (copy attached) from August Burghard, Executive Director, Gold Key, Nova University, regarding my talk to them on November 25, 1968.

I was met by Joe Gibson and taken home.

Saturday, December 7, 1968 - D.C. - home

I worked until noon in the D.C. office, getting caught up on correspondence and the reading of material which arrived during my trip.

I wrote to Lee DuBridge, President, California Institute of Technology, to express delight at his appointment as Science Advisor to President Nixon (copy attached).

Steve, Eric, and I played nine holes of golf at the Chevy Chase Club, despite the cold weather (low 40's). The scores were Steve-51, Eric-57, and I-52.

I spent the evening reading Ralph James' notebooks to try to establish the dates of the discovery of elements 95 and 96 at the Metallurgical Laboratory in the period of July 1944 to early 1945.

Sunday, December 8, 1968

The SCHOONER shot went off at 11 a.m. this morning.

I went to D.C. Stadium with Steve, Eric, and Dianne and saw the Cleveland Browns beat the Washington Redskins 24-21.

I read James' notebooks to establish dates of discovery of elements 95 and 96.



ENCL. BY DON  
NOV 86

GOLD KEY of



NOVA UNIVERSITY

440-A EAST LAS OLAS BLVD. • FT. LAUDERDALE, FLORIDA 333

PHONE: 535-6

December 3, 1968

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

*877 12/6/68  
Place  
re: ...*

Dear Dr. Seaborg:

Nova University and its many friends are indeed grateful to you for your physical presence, your address, "The Four Horsemen of Progress," and for the opportunity for some of our top business leaders to meet you.

The Seaborg impact was impressive.

As per your request, I am sending you a list of those present, with their business or professional qualifications. If there are any particular ones about whom you want information in more detail, please let me know.

Board Chairman Farquhar enjoyed the opportunity to visit with you on the drive to Miami Beach Tuesday morning, and to show you our oceanography site at Port Everglades. Needless to say, I enjoyed the trip, too, and I hope "Checkered Sunshine" will prove of interest to you.

Fort Lauderdale and Broward County and South Florida look forward to your return.

Cordially,

*August Burghard*  
August Burghard  
Executive Director

AB:ul

Dr. Glenn T. Seaborg

Page 2

December 3, 1968

P.S. As information, the Seaborg story was told in the FORT LAUDERDALE NEWS, THE BROWARD HERALD, MIAMI HERALD, HOLLYWOOD SUN TATTLER, POMPANO BEACH SUN SENTINEL, and will be in the January pictorial, JOURNAL OF THE GOLD COAST, and in the December NOVACRAT.

Wire stories went to the Education Editors of the NEW YORK TIMES, CHICAGO TRIBUNE, WASHINGTON STAR, WASHINGTON POST and the full text of your address went to Education Editors of TIME, U.S. NEWS AND WORLD REPORT, NEWSWEEK, NEW YORK TIMES, the POST and the STAR of Washington.

December 7, 1968

Dear Lee:

I am delighted that you have consented to accept the appointment as Science Adviser to President Nixon. Your broad experience, balanced viewpoint, and recognition of the importance of basic research is just what the doctor ordered.

I understand from Don Hornig that you will be in Washington to confer with him on December 16. If you would like to get a running start on some AEC plans and problems, I would welcome the opportunity to have a talk (which needn't take much of your time) on that date.

Again, congratulations and all good wishes.

Cordially,

*[Signature]*

Glenn T. Seaborg

President Lee A. DuBridge  
California Institute of Technology  
Pasadena, California 91109

GTS:MJ  
DuBridge

Monday, December 9, 1968 - D.C.

I received a flu shot in the health station on the sixth floor.

The debris from the SCHOONER Plowshare shot seems to be well-behaved and isn't offering any Limited Test Ban problems.

At 9:45 a.m. I received a telephone call from Thomas Paine, NASA. He told me he has received a request from Don Hornig for a short memorandum regarding the impact of underground testing on the NERVA program in Nevada, and that he is responding with a brief memorandum saying it would cost a little over a million a month for delays (three to four months). He also said if there is any damage the cost would be more than that; he gave a total estimate of five million dollars. He said he would send a copy of his memo to me. I asked him if Hornig is referring to delays in BENHAM. He said he supposed that is it, although Hornig referred to it as the forthcoming test.

At 9:50 a.m. I presided over Information Meeting 855 (notes attached). We approved a letter (copy attached, dated December 10, 1968) to the JCAE concerning provision by the U.S. of enriched uranium for an Italian nuclear-powered ship and a letter of commendation (copy attached) to N. V. Philips' Gloeilampenfabrieken recognizing the contribution of Philips to the advancement of nuclear energy under its auspices, and a settlement of \$50,000 for their claim before the AEC Patent Compensation Board (copies of relevant documents attached).

At 12:30 p.m. I had lunch in my office with Justin Bloom and Julie Rubin.

At 5 p.m. I presided over Information Meeting 856 (notes attached).

We have received the bad news from BOB that we must make still another cut in our FY 1970 budget - \$64,000,000 in expenditures (and possibly \$34,000,000 more). We are going to cut about \$15,000,000 in weapons and will resort to saving about \$20,000,000 in our uranium procurement contracts. The remainder, up to \$64,000,000, can be reached by slowing down a number of construction projects and cancelling a few items.

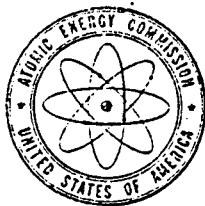
Tuesday, December 10, 1968 - D.C.

At 9 a.m. Commissioner Tape and Johnson, Bob Hollingsworth, John Abbadessa, Julie Rubin and I, and others went to the IBM Corporation (1220 19th Street, N.W.) for a briefing on computers. Les McEwing (Program Director) was our host; others present were George Leyden and Dean Williams (presenters), Ken Powell, and Keith Woodcox. We were their guests for lunch.

At 3:10 p.m. Dr. Coyle of Livermore Laboratory, with John Kelly, showed Commissioners Tape and Johnson, me, AEC staff, and Charles D. Harrington of DUN (who was visiting) movies of SCHOONER. It was very successful and there seems to be no danger of violating the Limited Test Ban Treaty.

I sent my biweekly letter report to President Johnson (copy attached). I also wrote to him requesting approval for BOWLINE III (third quarter), weapons test program in Nevada.

I wrote to R. M. Warren, Assistant to the President, American Chemical Society, to renew my nomination of Robert E. Connick for the 1970 ACS Award for Distinguished Service in the Advancement of Inorganic Chemistry.



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

COPY NO. 3  
December 9, 1968

INFORMATION MEETING 855

9:50 a.m., Monday, December 9, 1968, Chairman's Conference Room, D. C.

1. Dr. Palladino's December 2 Letter to the Chairman re Visit to Japan  
Approved. (SECY)
2. Plutonium Inventory
3. Oral Report on December 8 Schooner Event
4. Ad Hoc Panel Report on the Safety of Underground Testing (Dr. Hornig's December 5 Memorandum)  
A staff analysis is requested. (AGMMA)
5. Status of the Benham Event
6. Mr. Harris' December 6 Memorandum re Proposed Public Announcement for Benham  
Approved with changes. (PI)
7. AEC 1282/21 - Execution Data for a Portion of the Bowline II Events  
Approved. (AGMMA)
8. AEC 1282/22 - Execution Data for the Packard Event  
Approved. (AGMMA)

9. AEC 1044/21 - Proposed Tour of NTS by U.S. and Foreign Nationals  
Approved with changes. (AGMMA)
10. NTS Events (See General Giller's December 5 Memorandum)  
Noted. (AGMMA)
11. U. S. December 5 and 6 Discussions with the U. K.  
Staff reported on their meeting last week with the U. K. to discuss Gas Centrifuge and will discuss with the Commissioners further the proposed responses to the U.K. requests. (AGM-AGMIA-AGMP&P)
12. AEC 965/12 - Enriched Uranium for Italian Nuclear Powered Ship  
Approved with changes. (AGMIA)
13. AEC 289/67 - Settlement of N. V. Philips' Gloeilampenfabrieken Patent Claims  
Approved.. (GC-SECY)
14. AEC 603/135 - BOB Request for Follow-on Studies on High Energy Physics Program  
A letter to the Bureau is requested. (AGMPA)
15. AEC 89/122 - Proposed Assignment of Danish National to LASL  
Approved. (AGMIA)
16. Commissioner Tape's Query re Procedure on Visits of the French to the US  
Noted. (E AGM)
17. AEC 1083/128 - International Conference on Tunneling Technology  
Noted. A check will be made and additional information will be provided. (EAGM)

18. AEC 972/19 - Publication of Volume II of AEC History

Noted. We will discuss with the JCAE staff. (SECY-DC-Congr.)

19. Pending Contractual Matters Report No. 286

Noted with a request for information. (PAR-DC-ID)

20. General Manager's Report on Changes at the Canoga Park Area Office

21. December 6 Letter from Dr. John Foster, DOD, re Test Readiness

22. December 10 IBM Briefing for the Commissioners

Confirmed. (SECY)

W. B. McCool  
Secretary

11:50 a.m.

PRESENT:

COMMISSIONERS:

Chairman Seaborg  
Commissioner Ramey  
Commissioner Tape  
Commissioner Johnson

STAFF:

Mr. Hollingsworth  
Mr. Bloch  
Mr. Brown  
Mr. Hennessey  
Mr. Kull  
Mr. Rubin  
Mr. Griffin  
Mr. McCool  
Mr. Harris\*  
Mr. Stokley\*  
Mr. Winter\*  
Mr. Tesche\*  
Mr. Quinn\*  
Mr. Kratzer\*  
Mr. LeGassie\*  
Dr. English\*  
Dr. McDaniel\*

DISTRIBUTION:

Commissioners  
General Manager  
General Counsel  
Secretary

\*Attendance by Topic (s)



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

OFFICE DIARY  
GLENN T. SEABORG  
Chr USAEC, 1861-727  
FOLDER-PAGE 96047

DEC 10 1968

ENCL. BY DOE  
NOV 88

Mr. Edward J. Dausser  
Executive Director  
Joint Committee on Atomic Energy  
Congress of the United States

Dear Mr. Dausser:

Your letter of November 27, 1968, requested that the JCE be advised of U. S. policy regarding the proposed U. K. agreement to supply enriched uranium for the Italian nuclear powered ship, ENRICO FERMI. As you know, the matter of U. S. assistance to the Italian nuclear propelled project as well as the supply of fuel for the U. K. submarine program has received extensive review in the past within the U. S. Government. We are consulting with the other interested executive branch agencies and will respond as quickly as possible regarding this aspect of your inquiry.

Your letter also requested information on how the U. K.-Italian Agreement would affect our commitments to furnish enriched uranium to the U. K. Pending our final answer, the following information may be useful. We have agreed to supply to the U. K. over a ten-year period, 8,000 kgs of contained U-235 (low-enriched) for their civil power program, and 2400 kgs of contained U-235 for refueling research reactors in their civil research and development program. Also the proposed amendment to the military bilateral provides for the supply of [redacted] of U-235 (53% enriched) at a rate not to exceed [redacted] per year for their submarine program. On the other hand, the U. K. has offered to supply to Italy 5,000 kgs of uranium at 4.7% enrichment (235 kgs of contained U-235). The following table shows the number of separative work units required for these amounts of material for the enrichments indicated assuming the material was produced in U. S. plants and natural uranium was used as feed. The U. K. power reactors (advanced gas cooled type) require enrichments in the order of 1.5% for the initial loading. Therefore, assuming this enrichment for the 8,000 kgs of contained U-235, 533,333 kgs of enriched uranium are involved.

CLASSIFICATION CANCELLED  
WITH DELETIONS  
BY AUTHORITY OF DOE/OC

REVIEWED BY [Signature] DATE 7/14/86



Mr. Edward J. Bauser

- 2 -

OFFICE DIARY
GLENN T. SEABORG
Chr USAEC, 1963-72
FOLDER-PAGE 96048

<u>Amount of Enriched U (kgs)</u>	<u>Enrichment (%)</u>	<u>Separative Work Units</u>
533,333	1.5	654,400
2,400	various	Up to 565,300
██████████ ETED	93.0	██████████ ETED
5,000	4.7	40,770

As you can see from the above figures, the separative work required for the 5,000 kgs of uranium enriched to 4.7% is small when compared to that required for the 533,333 kgs enriched to 1.5%, the 2,400 kgs for the civil research and development program, or the ██████████ enriched to 93%, and constitutes ██████████ of the separative work represented by the total of three supply arrangements listed above. While these comparisons are expressed in terms of separative work, it should be pointed out that the U. K. is not operating Capenhurst at the higher enrichments (either 4.7% or 93%) and extensive reactivation costs would be involved. As indicated in our letter of November 20, 1968, the British plan to charge the Italians for the costs of reactivating the sections of Capenhurst necessary to produce 4.7% enrichments.

The 40,770 separative work units required to produce the 5,000 kgs of uranium enriched to 4.7%, if otherwise available, is equivalent to the separative work necessary to supply approximately 11% of the initial loading of a British power reactor (AGR, 1200 MWe).

The U. K. is aware of the reasons behind our inability to effect a civilian agreement with the Italians. Most recently they have been again advised of our concerns about the transfer of naval nuclear propulsion technology to other nations in the light of our close relationship with the U. K. in the field of naval nuclear propulsion and the importance we attach to there being no exception to this in their arrangement with the Italians. We welcomed the U. K. statement that their Ministry of Defence has similar concerns about such transfers and that the proposed transaction is not to be accompanied by any transfer of know-how of military propulsion reactors.

We will keep you informed of significant developments.

Sincerely,

Original Signed by  
E. J. Bauser

N. V. Philips' Gloeilampenfabrieken  
Eindhoven  
The Netherlands

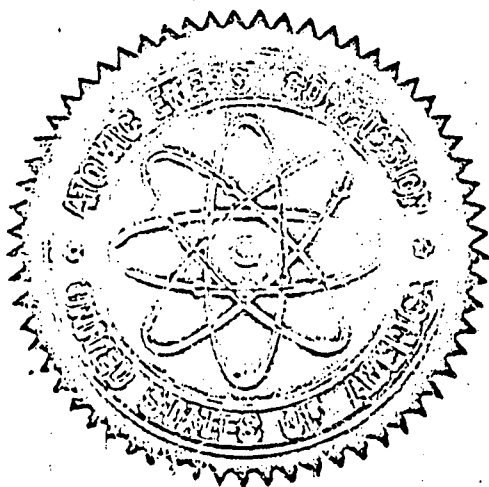
Gentlemen:

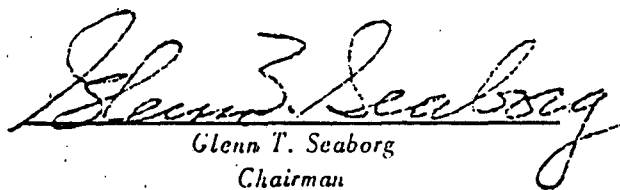
The United States Atomic Energy Commission commends N. V. Philips' Gloeilampenfabrieken for the early achievements of the Company, its employees and associates in scientific fields which have proved to be of significance in the development of nuclear energy. The Commission wishes particularly to commend N. V. Philips' Gloeilampenfabrieken for its support of the work of Enrico Fermi in nuclear reactions, of Gustave Hertz in isotope separation, of A. E. van Arkel, J. H. De Boer and associates on the metallurgy of exotic metals, and of F. M. Penning on the physics of the cold cathode discharge tube.

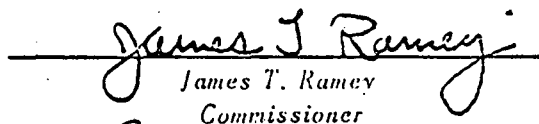
The Commission, therefore, on behalf of the Government of the United States of America, expresses its appreciation to N. V. Philips' Gloeilampenfabrieken for the contributions to the advancement of nuclear energy made under its auspices.

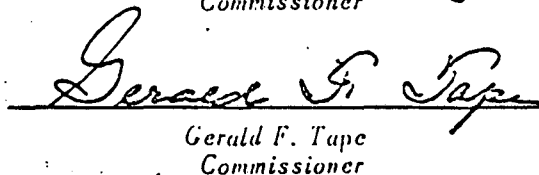
Sincerely,

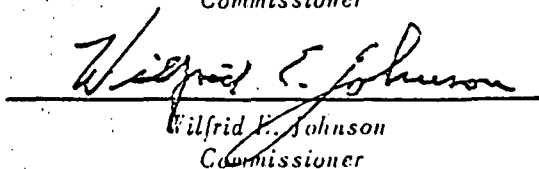
April 8, 1968

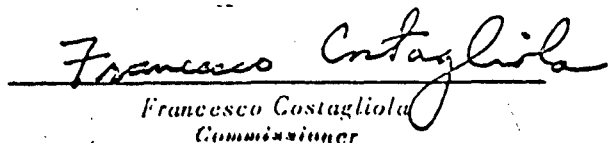


  
Glenn T. Seaborg  
Chairman

  
James T. Ramey  
Commissioner

  
Gerald F. Tape  
Commissioner

  
Wilfrid F. Johnson  
Commissioner

  
Francesco Costagliola  
Commissioner

December 23, 1968

General Thomas H. King  
805 Fifteenth Street, N. W.  
Washington, D. C.

Dear General King:

SETTLEMENT OF PATENT COMPENSATION BOARD DOCKET NO. 16 -  
N. V. PHILIPS' GLOEILAMPENFABRIEKEN ET AL.

We are pleased to formally conclude the proceedings in the subject docket by the agreed upon settlement. In accordance with the agreement we are transmitting herewith a Letter of Commendation of the United States Atomic Energy Commission, a copy of the executed Settlement Agreement and Release, an Order of the Patent Compensation Board closing Board Docket No. 16 in accordance with the stipulation of the parties, and Treasury check number 57,010,133 in the sum of \$50,000.00.

Sincerely,

Roland A. Anderson  
Assistant General Counsel  
for Patents

Enclosures:  
Letter  
Settlement Agreement  
Order  
Check



UNITED STATES ATOMIC ENERGY COMMISSION  
PATENT COMPENSATION BOARD

IN THE MATTER OF THE APPLICATION :  
OF :  
N. V. PHILIPS' GLOEILAMPENFABRIEKEN :  
and : DOCKET NO. 16  
HARTFORD NATIONAL BANK AND TRUST COMPANY :  
Trustee under Indenture with N. V. Philips' :  
Gloeilampenfabrieken et al dated August 25, 1939 :  
..... :

Mr. Thomas H. King  
Suite 617, Barr Building  
910 - 17th Street, N. W.  
Washington, D. C. 20006

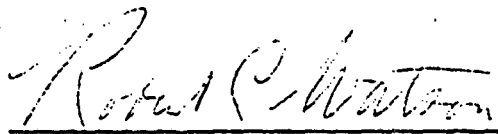
Office of the General Counsel  
U. S. Atomic Energy Commission  
Washington, D. C. 20545

Attention: Roland A. Anderson, Assistant  
General Counsel for Patents

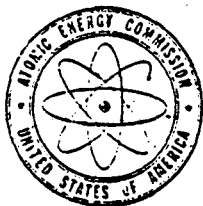
ORDER

Pursuant to a Stipulation agreed upon by and between Counsel  
for the Parties in the subject docket, the above-entitled proceeding is  
hereby dismissed with prejudice.

FOR THE BOARD:

  
Robert C. Watson, Chairman

Dated: December 20, 1968  
Washington, D. C.



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

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 NOV 86

COPY NO. 2  
 December 9, 1968

INFORMATION MEETING 856

5:05 p.m., Monday, December 9, 1968, Chairman's Conference Room, D. C.

1. Expenditure Reductions - Fiscal Year 1970 Budget

Mr. Hollingsworth reported the BoB requests transmittal to them by 12:00 N tomorrow of a breakdown of expenditure reductions totaling \$64 million. Staff has also been informed there may be a request for an additional reduction of \$26 million. The Commission accepted a reduction of \$64 million assigned as follows:

	<u>Expenditures</u>
<u>Raw Materials</u> . . . . .	\$20.0 million
<u>Special Nuclear Materials</u> . . . . .	5.5
U-235 & Prcc. Dev. . . . .	\$2.5
Level of Effort . . . . .	3.0
<u>Weapons (excl. Prod.)</u> . . . . .	15.3
<u>Reactors</u>	
MWD plus Malibu . . . . .	4.5
Euratom . . . . .	.4
Space Electric-Level of Effort . . . . .	2.0
69-4-a Hot Fuel Exam. Fac. (\$10.0 and \$4.0) . . . . .	2.0
FFTF (\$87.5 and \$17.0) . . . . .	4.0
LOFT (\$34.8 and \$8.8) . . . . .	2.0
<u>Physical Research</u>	
Meson (\$55.0 and \$16.3) . . . . .	4.0
<u>Plowshare - Excavation</u> . . . . .	4.0
<u>Program Direction &amp; Administration</u> . . . . .	<u>.3</u>
 Total Expenditure Reduction . . . . .	 \$64.0

The Commission requested pricing-out of a base case reduction on the LWBR and review of other programs for consideration if the additional \$26 million reduction is imposed. (OC)

W. B. McCool  
Secretary

6:25 p. m.

PRESENT:

COMMISSIONERS:

Chairman Seaborg  
Commissioner Ramey  
Commissioner Tape  
Commissioner Johnson

STAFF:

Mr. Hollingsworth  
Mr. Bloch  
Mr. Abbadessa  
Mr. Schoenhaut  
Mr. Corso  
Mr. Bauer  
Mr. Rubin  
Mr. Griffin  
Mr. McCool

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

UNCL. BY DOE  
NOV 86

December 10, 1968

OFFICE OF THE CHAIRMAN

The President  
The White House

Dear Mr. President:

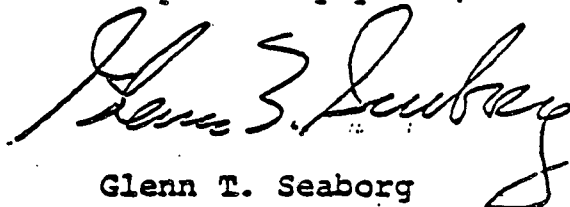
I have the pleasure of submitting the biweekly report on significant developments in the atomic energy program:

1. The Schooner nuclear cratering experiment, originally scheduled for detonation at the Nevada Test Site on December 2, was delayed by unfavorable weather conditions until December 8. Successful detonation occurred at 11:00 a.m. EST on that date. Preliminary high altitude aerial observations indicate that a crater 800 to 900 feet in diameter and 200 to 300 feet in depth was produced. Airborne radioactivity levels were about as anticipated. No overexposure to radiation of AEC personnel or members of the public has occurred.
2. The groundbreaking for the National Accelerator Laboratory at Batavia, Illinois, where the 200 Bev accelerator is being constructed, occurred on December 1. Commissioners Ramey, Tape, and I, and Representative Melvin Price spoke at the ceremony.
3. I addressed the annual meeting of The Council of Graduate Schools in the United States in San Francisco on December 4, using as my theme the Federal-University partnership in graduate education. Approximately 280 graduate deans were in the audience.
4. Atomic Energy Commission contractor-operated facilities employed 1,016 young people in the Youth Opportunity Campaign during the summer of 1968, an increase of 156 over last year; YOC's were one percent of the total employment. Approximately 65 percent of the youths were from minority groups, and 45 percent were black. College students made up 36 percent; 48 percent were high school graduates; 13 percent were high school students; and about 2 percent were high school "dropouts." Males comprised 63 percent of the total.



5. AEC's Atoms-In-Action Demonstration Center in Cardoba, Argentina, closed November 17. Total public attendance during this four-week exhibit was 39,000. Two hundred ninety students attended university-level technical training courses; 5,000 used the Technical Information Reference Room; and 7,700 attended lectures, demonstrations, and film showings. Extremely favorable reaction to the exhibit was reported by the U.S. Ambassador to Argentina.
6. As part of the Equal Employment Opportunity Program, AEC contractors on Amchitka Island will start an on-the-job training program for Alaskan natives.
7. The AEC will sell \$18.5 million worth of heavy water for an Argentine nuclear power plant, which will be built by a German firm.
8. The Molten Salt Reactor at Oak Ridge is operating with uranium-233 exclusively as fuel. This is the world's first reactor to be so operated. Reactors burning U-233, which is made from thorium-232, would tap the vast energy stored in nature's relatively abundant supply of thorium.
9. Spain has decided to withdraw from the European Organization for Nuclear Research on December 31 because of budgetary stringencies.
10. Sixty Idaho state legislators, who received a briefing and tour of the National Reactor Testing Site on November 22, were especially interested in the Materials Testing Reactor. Idaho's Governor promised AEC that he would ask the legislature for funds to support the MTR as a beam research reactor for the West. Recently the Western Region of the Council of State Governments urged that the MTR be used broadly as a Western research facility.

Respectfully yours,



Glenn T. Seaborg

Wednesday, December 11, 1968 - D.C.

At 9:45 a.m. I presided over Regulatory Information Meeting 321 (notes attached).

At 10:10 a.m. I called President Bjarne Ullsvik, Wisconsin State University. I told him I had delayed answering his letters because it was impossible at the moment to project my schedule for Sunday, May 25, 1969, but I might be able to speak at their commencement if he could give me another couple of weeks to decide. He said he would be more than happy to wait for my decision. He also mentioned they would have a graduating class of about 400 students and an audience of approximately 3,000. I asked him how to get to Platteville and he said via Chicago and Dubuque, where I would be met and driven to Platteville. He said the commencement would be over around 4:30 p.m. which would enable me to get a 6 p.m. plane from Dubuque to Chicago. He invited me to stay at his home if I could stay overnight. He said he would send me some plane schedules.

At 10:15 a.m. I presided over Information Meeting 857 (notes attached).

At 1:30 p.m. I had lunch in the office with Julie Rubin.

At 2 p.m. I met with representatives of the California General Assembly Committee investigating prospects of nuclear energy - Lester A. McMillan (Chairman), Robert Badham, Larry Townsend, David Cox, and Richard D. Gravelli. I outlined for them the broad potential of nuclear energy in its various manifestations.

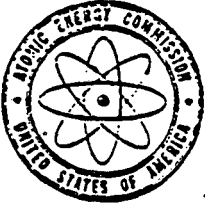
At 3:30 p.m. I was interviewed on tape on our Romanian Agreement by Horia Socianu of USIA. Bernard was the engineer.

At 5:10 p.m. I received a telephone call from Walt Rostow (White House). He said that the President "had a miserable time with BENHAM because of the coincidence of the arrival of the Pitzer report on underground testing." He said that the President had not given his assent to the report, but the people went ahead with it. He asked whether there are any other reports in the pipeline "that will jump the President"; I said, no. He then went on to state that the President has given his approval for the go-ahead on the BENHAM shot; but he did not clear the release of the Pitzer report, and Rostow said that is a separate issue that we will have to get to later. At that point the conversation halted abruptly inasmuch as the President was calling Rostow. (Note: I called Commissioner Tape to give him the above information and to ask him to pass it on to the necessary people. I also tried to reach Hornig, but he was in Joseph Califano's office; I left word for him to call me. At 5:45 p.m. Carl Walske called, and I gave him the message also.)

Commissioner Tape told me he has decided to leave the Commission, probably to accept the Presidency of Associated Universities, Inc. He may be offered the Presidency of Georgia Tech, which might also interest him.

I wrote to Lynne and Bill and to Jeanette and Ray to send a copy of the White House press release covering the Fermi Award Ceremony and to give them some other family information.

I watched President Nixon on television, as he introduced his cabinet, from the Shoreham Hotel.



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NOV 88

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

REGULATORY INFORMATION MEETING 321

9:50 a.m., Wednesday, December 11, 1968, Chairman's Conference Room, D. C.

1. Mr. Price's Oral Report on the December 5, 6, and 7 ACRS Meeting
2. Mr. Price's December 10 Memorandum re Export of Thermoelectric Generator to the United Kingdom

Approved. (DML)

The Commissioners are to be informed of any unusual cases of this nature. (ADRA)

3. Safety Analysis of SNAP 27

Commissioner Tape requested a status report. (SNS-ADRA)

4. Congressional Requests for Information on NFS

Commissioner Johnson requested a report. (ADRA)

W. B. McCool  
Secretary

10:10 a.m.

PRESENT:

COMMISSIONERS:

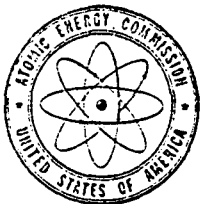
Chairman Seaborg  
Commissioner Ramey  
Commissioner Tape  
Commissioner Johnson

STAFF:

Mr. Price  
Dr. Beck  
Mr. Ferguson  
Mr. Rubin  
Mr. Ryan  
Mr. Griffin  
Mr. Wells  
Mr. Abbadessa  
Mr. McCool

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General Counsel  
Secretary



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

COPY NO. 3  
December 11, 1968

INFORMATION MEETING 857

10:10 a. m., Wednesday, December 11, 1968, Chairman's Conference Room, D. C.

1. December 7 Memorandum from Charles Zwick, Director, BoB, re  
Opening Statement by the President at the December 4 Cabinet Meeting

Noted. (AGM)

2. Commissioner Tape's Oral Report on His Call to Mr. Walt Rostow, White  
House Staff, re Benham

3. Reductions to Meet BoB Fiscal Year 1970 Expenditure Limitation (See  
Controller's December 9 Memorandum to the Commissioners)

Discussed.

4. Radiation Standards for Uranium Miners - November 29 Federal Radiation  
Council Meeting

Commissioner Tape reported nothing has been sent to the President yet and discussed briefly possible courses of action. Commissioner Ramey will call Mr. Dave Black, Interior, and the staff will also check the situation. (Ryan-AGMO)

5. AEC 988/170 - Exchange of Atomic Weapon Information with the United Kingdom

Approved. (I)

6. Oral Intelligence Report

7. AEC 858/27 - Conflict of Interest Exemption

Approved. (BM)

8. AEC 199/21 - Presidential Exemption for Sandia  
Approved. (DC)
  9. AEC 1282/23 - Proposed Letter to the President Concerning Bowline III  
Approved. (AGMMA)
  10. AEC 141/117 - Participation with American Geophysical Union in Annual Society Meeting  
Approved with suggestions. Commissioner Tape will plan to speak briefly at the beginning of the session. (AGMMA-Rosen)
  11. AEC 1083/129 - Second Conference on Nuclear Isospin March 13-15, 1969  
Approved subject to the receipt of further information. (AGMMA)
  12. AEC 89/123 - Proposed Participation of Polish National at LRL-Berkeley  
Approved. (AGMIA)
  13. AEC 1037/52 - Reciprocity of U.S. /Soviet Bloc Visits  
Approved with a change. (AGMIA)
  14. Apollo 8 Launch, December 21, 1968  
Commissioners Tape and Johnson plan to attend. (Rosen-Helfrich)
- \*\*\*\*\*
15. Safety Analysis of SNAP 27  
Commissioner Tape requested a status report. (SNS-ADRA)

W. B. McCool  
Secretary

11:15 a.m.

PRESENT:

COMMISSIONERS:

Chairman Seaborg  
Commissioner Ramey\*  
Commissioner Tape  
Commissioner Johnson

STAFF:

Mr. Bloch  
Mr. Brown  
Mr. Ferguson  
Mr. Abbadessa  
Mr. Kull  
Mr. Rubin  
Mr. Ryan  
Mr. Griffin  
Mr. McCool  
Mr. Corso\*\*  
Mr. Bauer\*\*  
Mr. Erlewine\*\*  
Mr. Reichardt\*\*  
Gen. Giller\*\*  
Mr. Tesche\*\*  
Mr. Winter\*\*  
Mr. Kratzer\*\*

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General Counsel  
Secretary

\*Partial Attendance

\*\*Attendance by Topic (s)

Thursday, December 12, 1968 - D.C. - New York

At 9 a.m. I called Don Hornig and told him Jerry Tape was on the line with me and we were calling about the BENHAM approval, having heard from Walt Rostow that the President was displeased because there was a committee report on this and he does not want the report released. I asked him if he knew about this. He said he did and thought the President was upset basically because it puts him in an impossible bind. Lots of people know the report has been made even though circulation has been very limited. Jerry said the important point is the posture we take at the briefing in Nevada. The question is should we remain silent or, if questioned, admit we knew the group got together and had something under review. Hornig said we might admit we knew a group had something under review but were not aware a report had been written. Jerry said the problem with that is that we have the report. I asked if we could stretch our original plan a little further and say we know a report is under review but don't know what its disposition will be. Hornig agreed this would be the candid thing to do. Jerry said we would try to avoid any comment but if backed into a corner would have to admit its existence. I told Hornig the BENHAM test would probably be announced today.

At 10 a.m. Commissioner Ramey and I met with the Chairmen of our Atomic Safety and Licensing Board Panels - Jack M. Campbell, Valentine Deale, James Gleason, Arthur W. Murphy, J. D. Bond, and Samuel W. Jensch, along with Algie Wells, Joseph Hennessey and Mark Rowden. We discussed various problems before the hearing boards.

Commissioners Ramey, Tape, and Johnson, Bob Hollingsworth and I met with Maurice Goldhaber (Director, Brookhaven National Laboratory) at 11:15 a.m. in our regular type session with laboratory directors. We were particularly interested to learn of work of George C. Cotzias of BNL in controlling Parkinson's disease with L-dopa.

At 1 p.m. Justin Bloom and I had lunch in my office. I flew to New York on American Airlines flight No. 464, leaving at 2:30 p.m. and arriving at 3:30 p.m. Wesley Johnson met me and rode to the Waldorf-Astoria with me - Ony Velez was the driver. Mrs. Henry Black rode in the AEC car into New York with me.

I went to the Harold Pratt House at 5 p.m. (5th and E 68th Streets) for tea and a meeting of the Council on Foreign Relations where I heard Eugene Loeb1, Economist and former Director, Czechoslovakia State Bank, speak on "The Intellectual and Ideology in Czechoslovakia."

I then attended the reception and black tie dinner in the Grand Ballroom of the Waldorf-Astoria given by the Advertising Council and at which their Public Service Award for 1968 was given to Robert McNamara. Albert L. Cole, Chairman, presided and Dan Seymour talked on "A Tale of Fifty Cities." John T. Connor presented the award. As a head table guest, I sat between John McCone and Orville Freeman. Those in attendance were: Donald H. McGannon (Chairman and President, Westinghouse Broadcasting Co., Inc.), General Alfred M. Gruenther (Retired, Supreme Allied Commander in Europe), Clarence Francis (Finance Chairman, Lincoln Center for Performing Arts), Howard A. Rusk (Director, Institute of Physical Medicine & Rehabilitation), Augustine R. Marusi (President, the Borden Company), John D. Harper (President, Aluminum Company of America), Kenneth Rush (President, Union Carbide Corporation), Charles G. Mortimer (Chairman, Executive Committee, General Foods Corporation), Roger M. Blough (Chairman, United States Steel Corporation), Joseph A. Grazier (member,



Advertising Council Dinner, held at the Waldorf Astoria Hotel in New York City, December 12, 1968

Robert McNamara and Seaborg



Seaborg and John T. Connor



Public Policy Committee), Alexander B. Trowbridge (President, American Management Association), Mrs. Charles M. Maguire, Thomas B. McCabe, Jr. (Vice-President, Scott Paper Company), Robert P. Keim (President, The Advertising Council), Charles H. Maguire (Assistant to the President, The White House), Luther Hodges (former U.S. Secretary of Commerce), Orville L. Freeman (U. S. Secretary of Agriculture), John A. McCone (Chairman, Joshua Hendy Corporation), Robert D. Murphy (Chairman, Corning Glass International), Mrs. John T. Connor, Robert S. McNamara (President, International Bank for Reconstruction and Development), Albert L. Cole (Chairman, Executive Committee), John T. Connor (President, Allied Chemical Corporation), C. R. Smith (U. S. Secretary of Commerce), Charles E. Wilson (Chairman, Industries Advisory Committee), Dan Seymour (President, J. Walter Thompson Company), Paul G. Hoffman (Managing Director, United Nations Special Fund), and Reverend Howard C. Shaffer, Jr. (Director, Religion in American Life, Inc.).

I spent the night at the Waldorf-Astoria.

Friday, December 13, 1968 - New York - D.C.

I had breakfast at Oscars in the Waldorf-Astoria hotel.

Frank Richardson met me and we walked to WOR-TV (Broadway and 40th Streets) where I was interviewed on tape on the status of nuclear power by Roger Skibenes, for later use on "Radio New York." This was broadcast on WOR radio at 5:15 p.m. on December 15, 1968 (in part).

I went back to the Waldorf and made some phone calls, then went to the United Nations and sat with U.S. Ambassador J. R. (Russ) Wiggins and the U.S. delegates, while Wiggins and others spoke in favor of the postponement of a resolution that would expel South Africa from a committee of the United Nations. The African nations are forcing this through, apparently illegally, by making it look like a matter of discrimination against the Negro if the resolution doesn't pass.

At 12:15 p.m. I attended the William E. Knox 22nd Annual Pre-Christmas luncheon given by Bill Knox in the Bowman Room of the Biltmore Hotel (partial guest list attached). I sat next to Ian MacGregor (President American Metal Climax, Inc., New York City) and George Woods (former President of the World Bank) and across from Ted Sorenson. Sorenson isn't too favorably impressed by the Cabinet that Nixon announced Wednesday night.

I flew home to Washington on the 3 p.m. shuttle. I spent an hour in the D.C. office.

Helen and I went to the Swedish Embassy to the Lucia ceremony. We talked to Mrs. Frances Howard (Vice President Humphrey's sister). She said that her brother feels that he would have won if the election had been held a day or two later.

Dave arrived home from Davis (the Bay Area) tonight. He flew via Chicago, standby basis - couldn't get on a direct flight. Pete had his physical examination today (in Berkeley) for the armed services and was classified 1Y.

*Guests*

Eugene R. Black.....	Director, The Chase Manhattan Bank, N. Y. C.
Vance Brand.....	President, International Investment Com- pany, Washington, D. C.
Fletcher L. Byrom.....	President, Koppers Company, Inc., Pitts- burgh, Pa.
A. Denys Cadman.....	Vice President, Gulf Oil Corporation, N. Y. C.
Jean Cattier.....	Chairman, European-American Banking Corporation, N. Y. C.
Stewart S. Cort.....	President, Bethlehem Steel Corporation, Bethlehem, Pa.
Earl C. Daum.....	Retired Vice President, General Motors Corporation, N. Y. C.
J. de Cubas.....	President, Westinghouse Electric Inter- national Company, N. Y. C.
Fred R. Esty.....	Chairman, United States Banknote Cor- poration, N. Y. C.
The Honorable James A. Farley.....	Chairman, The Coca-Cola Export Corpo- ration, N. Y. C.
Irving Mitchell Felt.....	Chairman & President, Madison Square Garden Corporation, N. Y. C.
Fred C. Foy.....	Chairman, Koppers Company, Inc., Pitts- burgh, Pa.
Harlow W. Gage.....	Vice President, General Motors Corpo- ration, N. Y. C.
V. A. Garibaldi.....	U.S. Representative, Fiat S.p.A., N. Y. C.
William S. Gaud.....	Administrator, Agency for International Development, Washington, D. C.
Michael L. Haider.....	Chairman, Standard Oil Company (New Jersey), N. Y. C.
Najeeb E. Halaby.....	President, Pan American World Airways, N. Y. C.
Gabriel Hauge.....	President, Manufacturers Hanover Trust Company, N. Y. C.
Jack R. Howard.....	President, Scripps-Howard Newspapers, N. Y. C.
John D. Iversen.....	President, Mesta Machine Company, Pittsburgh, Pa.
Robert L. Jeans.....	Vice President, Westinghouse Electric International Company, N. Y. C.
Edgar F. Kaiser.....	Chairman, Kaiser Industries Corporation, Oakland, Calif.
J. Burke Knapp.....	Vice President, International Bank for Reconstruction and Development, Wash- ington, D. C.
James A. Linen.....	President, Time Incorporated, N. Y. C.
John M. Lyons.....	President, Chase International Invest- ment Corporation, N. Y. C.
Ian MacGregor.....	President, American Metal Climax, Inc., N. Y. C.
William McC. Martin, Jr.....	Chairman, Board of Governors, Federal Reserve System, Washington, D. C.

Saturday, December 14, 1968 - D.C. - home

I worked until noon in the D.C. office. I took a hike in Rock Creek Park with Dave - we hiked to the Maryland line on the White Horse Trail, across on Cross Trail No. 1, then back on the Black Horse Trail, and across on Cross Trails No. 4 and No. 3.

I worked on my article, "Synthetic Elements," which I am writing with Justin Bloom (later published in the April 1969 edition of Scientific American).

Helen and I went to a reception in honor of John Conway at Jack Rosen's home (2210 McAuliffe Drive, Rockville). The Commissioners, their wives, the Commissioners' assistants and wives, the Bill Englands, and Ed Bausers were present.

Sunday, December 15, 1968

Dianne, Dave, Steve, and I bought our Christmas tree.

Helen, Dave, Steve, and I went to the D.C. stadium to see the Washington Redskins-Detroit Lions football game. The Redskins won, 14-3, with the two touchdowns engineered in the last five minutes by Theophilides.

Helen and I went to a reception at Jane McBaine's in her Georgetown home. The Potter Stewarts, Mrs. John Francis Neylan (Jane's mother), and Chip Bohlen were among those present.

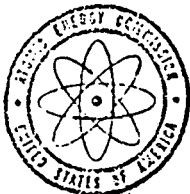
Monday, December 16, 1968 - Germantown

At 9:55 a.m. I presided over Information Meeting 858 (notes attached).

At 11:10 a.m. I presided over Executive Session (Adjudicatory) 183 at which the Commission approved the Notice of Hearing in the matter of Financial Qualifications issue in the matter of the Vermont Yankee Nuclear Power Corporation (Vermont Yankee Nuclear Power Station) Docket No. 50-271, with Revisions which will be reviewed with Commissioner Ramey.

At 11:35 a.m. I presided over Commission Meeting 2356 (action summary attached). The Commission Meeting continued into lunch.

At 12:20 p.m. I received a telephone call from Congressman Craig Hosmer. He had just returned last Wednesday (December 11th) from his trip abroad, and he is very excited about the possibility of the Australian harbor excavation project. The Australians hope it will receive approval and get going. I said we will probably need some help. Our budget isn't the best. The new President may have to do something about that. Hosmer said that, if the project captures our interest, he would be happy to work on it. He continued, by saying that the time schedule may be unrealistic, but if we don't pick up fast on Plowshare, we will probably hit the doldrums again. I said in the coming months when the new budget shapes up we would probably be at a crossroads very soon. Hosmer said he just wanted to assure me that we would have his active support. He said that my personal situation with regard to the new administration will be gotten to before long, and he feels it will come out fine. I said I was happy to hear that because it is getting harder to parry questions.



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

COPY NO. 2

December 16, 1968

INFORMATION MEETING 858

9:55 a. m. , Monday, December 16, 1968, Room A-458, Germantown Headquarters

1. Proposed Letter to Messrs. Atwood and Kuhns re Fast Breeder Reactor  
Demonstration Plant Project

Approved. The December 12 letter from Mr. Flaherty, AI, is to receive a similar response. (Rubin-RDT)

2. Hughes Company Representative Telegram re Briefing on High Yield  
Testing and December 13 Reply

Noted.

3. Commissioner Costagliola's Report on His Trip Last Week to NATO Facilities  
in Europe

4. AEC 867/151 - Deployment Ceiling Plan for FY 1970 (See also AEC 867/149 -  
FY 1970 Nuclear Deployment Ceiling Plan)

Approved. (AGMMA)

5. AEC 580/292 - FY 1970-1971 Nuclear Weapons Stockpile (See also AEC  
580/291)

Approved with a request. Additionally, Commissioner Ramey requested preparation of a draft letter to Secretary of Defense Designate Melvin Laird. (AGMMA)

6. AEC 1283/31 - FY 1970 Weapons Program Reduction

Approved. (AGMMA)

7. Proposed Response to October 16 GAC Letter Reporting on the 106th GAC Meeting

Approved with a change. (Rubin)

8. AEC Meeting with Federal Power Commission to Discuss Five-Year Projection of Nuclear Plant Growth

To be scheduled. (SECY-RDT)

9. NTS Events (See General Giller's December 12 Memorandum)

Noted. (AGMMA)

10. Ashland Oil Company Request to Visit Hanford

Approved. (AGMO-AGMP&P)

11. Status of Federal Radiation Council Recommendation re Uranium Miners

Commissioner Ramey said he had been informed the recommendation was on the President's desk. Commissioner Tape will check. (Rosen)

12. AEC 811/215 - Public Announcement of Gondola Site Selection Activities

Deferred. (PI-SECY)

13. Staff Briefing on the Schooner Event

14. AEC 1300 - Use by AEC of the Term NUPLEX

The Chairman will sign the letter at Page 7. (Rubin-GC)

15. AEC 1283/30 - Reduction in Uranium Procurement Under AEC Contracts

Staff may proceed. (RM-OC)

16. Pending Contractual Matters Report No. 287

Noted. (PAR)

W. B. McCool  
Secretary

11:10 a. m.

PRESENT:

COMMISSIONERS:

Chairman Seaborg  
Commissioner Ramey  
Commissioner Tape  
Commissioner Johnson  
Commissioner Costagliola

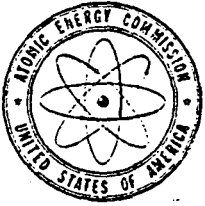
STAFF:

Mr. Hollingsworth  
Mr. Bloch  
Mr. Brown  
Mr. Hennessey  
Mr. Abbadessa  
Mr. Kull  
Mr. Rubin  
Mr. McCool  
Mr. Winter\*  
Mr. Roser\*  
Mr. Erlewine\*  
Mr. Quinn\*  
Mr. Harris\*  
Mr. Stokeley\*  
Dr. English\*  
Mr. Hamburger\*

DISTRIBUTION:

Commissioners  
General Manager  
General Counsel  
Secretary

\*Attendance by Topics (s)



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

December 17, 1968

Approved \_\_\_\_\_

REH

Date \_\_\_\_\_

R. E. Hollingsworth, General Manager

ACTION SUMMARY OF MEETING 2356, MONDAY, DECEMBER 16, 1968, 11:35 A.M.,  
ROOM A-410, GERMANTOWN, MARYLAND

SECY:RBM/SBR

Commission Business

1. Minutes of Meetings 2332, 2333, 2334, 2335 and 2336

a. Minutes of Meeting 2335

Approved, as revised.

b. Minutes of Meetings 2332, 2333, 2334 and 2336

Approved, as revised, subject to comments by Commissioner Ramey.

(SECY)

2. AEC 1299 - Legislative Program for CY 1969

Approved. (GC)

3. AEC 1299/1 - Appendix "C" to AEC 1299

Approved. (GC)

4. AEC-R 4/58 - Establishment of Atomic Safety & Licensing Appeal Board

Approved, as revised, subject to prior discussion with the JCAE.

The Commission requested revision of the press release to indicate "it is contemplated that the Commission would delegate its review function to the Appeal Board in a number of proceedings sufficient to give the Commission an adequate opportunity to evaluate the new review procedure."

(GC)

5. AEC 180/47 - Siting of Commercial Reprocessing Plants & Related Waste Management Facilities; and  
AEC 180/50 - Supplement to AEC 180/47

Discussed.

The Commission requested:

- a. clarification of the terms "high", "low" and "intermediate" level wastes and policies related to the storage of such wastes;
- b. revision of the Statement of Policy Concerning the Siting of Commercial Fuel Reprocessing Plants and Related Waste Management Facilities to indicate high-level radioactive fission product wastes must be transferred to a Federal repository "as soon as practicable;"
- c. alternatives to publication (for the information of the nuclear industry) in the Federal Register of a statement concerning the possibility of more comprehensive and restrictive effluent release limits on fuel reprocessing plants; and
- d. clarification of policies concerning wastes from operating nuclear facilities and nuclear facilities which have ceased operations.

(RDT/DR)

6. Oral Report on Loss of SNM

7. AEC 267/101 - Funding of Nuclear Reactor for New York Hall of Science

Approved. (TI)

8. AEC 1170/7 - Contract with Battelle Memorial Institute

Approved. (DC)

9. AEC 71/77 - Revision of Scope and Extent of Civil Service Commission Full Field Investigations

Approved, subject to informal discussion with the JCAE. (S)

10. AEC 25/399 - Proposed Air Force Safety Rules

Approved, subject to the inclusion of a reference in the letter to the Secretary of Defense to the previously expressed AEC intention to discuss further with DOD the explicit provisions for the use of PALS. (MA)



11. AEC 25/400 - Proposed Revised Safety Rules for the U.S. Air Force Airborne Launch Control System

Approved. (MA)

12. AEC 352/74 - Proposed Sale of Material to the United Kingdom  
AEC 352/75 - Proposed Sale of U-235 to the United Kingdom  
AEC 352/76 - Transfer of Materials to the U.K. for R&D

Approved in part and subject to further discussion. (MA)

13. AEC 764/201 - Proposed Statutory Determination Under NATO Agreement for Cooperation

Approved, as revised.

The Commission requested a change in recommendation "c" of AEC 764/201 to note the Commissioners:

- a. shall approve all pre-Phase III new advanced planning information which may be released under the provisions of the determination; and
- b. will be kept informed of all advanced planning information transmitted under the provisions of the determination.

(MA)

14. AEC 843/67 - Part 26 - Dissemination of and Access to Private Restricted Data and Related Amendments to Parts 25 and 95 (See also Commissioner Johnson's December 5 Memorandum re Comments on AEC 843/67)

Deferred. (SECY)

15. AEC 459/53 - Seminar on Uranium Enrichment

Discussed.

The Commission:

- a. Requested staff revise guidelines with the objective of limiting attendance to 100 industry representatives;
- b. Noted March 3-4 would be an acceptable date for the enrichment seminar; and
- c. Noted Commissioner Johnson will discuss with JCAE staff.

(AGMP&P/SECY)

16. AEC 459/48 - Uranium Enrichment Corporation Scope and Organization

Discussed.

Commissioner Ramey suggested development of an alternative case, including draft legislation and rationale, for continued AEC ownership and operation of the enrichment activity, but with legislative authority for self-financing through re-application of revenues and borrowings from Treasury.

-- (AGMP&P/GC/SECY)

R. E. Hollingsworth  
Action Summary 2356

-4-

December 17, 1968

17. AEC 459/49 - Future Ownership and Management of Uranium Enriching Facilities in the United States

Deferred. (SECY)

18. AEC 459/50 - Alternatives for Government Enrichment Activities - Uranium Enrichment Corporation Legislation

Deferred. (SECY)

19. AEC 459/52 - Future Ownership and Management of Uranium Enriching Facilities in the U.S. - Sporn Proposal

Deferred. (SECY)

20. The General Manager's Oral Report on His Conversation with Colonel Hunt

Original signed  
W. B. McCool  
W. B. McCool  
Secretary

cc:  
Chairman Seaborg  
Commissioner Ramey  
Commissioner Tape  
Commissioner Johnson  
Commissioner Costagliola

At 1:30 p.m. I received a telephone call from Congressman S. R. Yates (Illinois). He said he was trying to obtain some education on the ABM system so he could intelligently inform his people on the subject. He recalled the soul-searching that AEC and Congress went through at the time nuclear reactors were approved for peaceful purposes in order to establish a set of standards to assure public safety. He asked why the same thing couldn't be done for missile sites and why the missile sites are being built so close to cities. Are they less dangerous? I told him I don't think either one is very dangerous; that the standards for nuclear reactors are for the maximum possible credible accident which we can't rule out 100% but rule out about 99.9%<sup>+</sup>. I said there is the possibility of a reactor getting out of control due to loss of coolant and releasing radioactivity over the area but it has never happened and we do not think it will. In order to reduce the possibility of it happening we have these standards. On the other hand, a missile is inert. The only way a missile could give any trouble would be if it was misdirected or exploded.

Yates asked if the phrase "maximum possible credible accident" would be applicable to a nuclear missile site. He thought if reactors are built away from cities because of the possible one-tenth of one percent chance of an accident the same thing should be done for the missiles. I told him I am not the person he should talk to about that but I know the reason they are near cities is to protect the cities. He asked me who would be knowledgeable on this subject; he has not been able to find anyone in DOD who can tell him anything he can pass on. He said he talked to Foster but everything he told him was "off the record." I said as time goes on and we gain more experience we will probably move the reactors closer to the cities. He asked what would happen if something suddenly happened to a mechanism. I replied this would not be apt to happen until war was upon us. I said I have visited missile sites and know they have safety devices on top of safety devices.

Yates asked if it were up to me would these sites be built in more remote areas. I said I could see why they are built where they are needed and really do not know if they could be built further away and still do the job. He asked if I felt I were in a position to answer his question, "why aren't standards applicable to nuclear reactors also applicable to missiles?" I said it is because they are different - one is inert, the other is running. It is like comparing apples and oranges. He said I hadn't really solved his problem but he thanked me for the information I had given him.

At 3:45 p.m. Commissioner Tape and I left for the D.C. office where we met with Lee DuBridge, who has been appointed as the President's Science Advisor. We briefed him on our Nevada testing problem, the desirability of keeping Harry Smyth on the job, the trouble with BOB on supporting basic science, the status of the 200 BeV Accelerator funding and other high energy accelerators. He expressed hope I would continue as Chairman of the Atomic Energy Commission.

At 5 p.m. I met Helen, Dave, Steve, Eric and Dianne at the Christmas tree lighting ceremony on the Ellipse. President Johnson spoke and then turned on the lights. Mrs. Johnson, her daughter Lucy, and Lucy's little son, Patrick, were also present. It was very cold.

Tuesday, December 17, 1968 - D.C. - Cleveland, Ohio

After spending about an hour and a half at the D.C. office I went to the National airport and flew to Cleveland on United Airlines flight No. 619, leaving at 10:35 a.m. and arriving at 11:50 a.m. I was met by Betty Moore,

wife of Dan T. Moore, Director General of the International Platform Association, who drove me to the Union Club. There I had a buffet lunch with Dan Moore and members of the Board of Governors in Parlor 5; the group included Anna Blair Miller, Edna Sinclair, Neill O'Malley, Hallie Bryant, Clarence Dill, Paul Leonard, Eleanor Peters, Edmund Thornton, K. Hart Puffer, Louis Bohmrich, Salom Rizk, Dan Moore III, Carlton Rogers, Cathy Allan, Bill McVey, Ann De Mun, Don Wolfe, Cleo Dawson and Rosa Lobe.

We then went across the street to the Statler-Hilton where the winter meeting of the IPA opened in the ballroom. Don Wolfe, Manager Editor of the Toledo Blade, was Master of Ceremonies. I made a short welcoming address, followed by an address by Dan Moore. Following a humorous piano talk by Henry Pildner, I held a press conference - three television cameras (Channels 3 and 8 included), several radio stations, and reporters. Questions on Saturday's Apollo 8 shot, value of the NPT, peaceful uses of nuclear energy, etc., were asked.

I then attended the dinner. Lowell Thomas gave his regular CBS news broadcast from the dinner, followed by a reminiscing talk on his experiences on radio broadcasting. Don Wolfe was Master of Ceremonies. I was introduced by Thornton, Dan Moore's son-in-law, and spoke to the audience of about 300 on "Telling It Like It Is - Making It Like It Could Be." After some remarks by Drew Pearson the IPA Award was presented to Lowell Thomas.

I spent the night as a house guest of the Dan Moores' in Cleveland Heights.

Wednesday, December 18, 1968 - Cleveland, Ohio - D.C.

I had breakfast at the Dan Moores' with members of the IPA Board and other IPA members - Mary Goldman, who lives near the Moores, was present. (Dr. Harry Goldman attended the dinner last night, but Mary missed it due to the flu.)

Following breakfast Mary drove me to the airport. I flew to Washington National Airport on Northwest Airlines flight No. 326, leaving at 11:20 a.m. and arriving at 12:30 p.m.

I went to the D.C. office.

At 1:55 p.m. I received a telephone call from Lou Roddis, Pennsylvania Electric Company. He told me of a development in their system concerning the second Babcock and Wilcox Unit, designated as Oyster Creek No. 2, originally scheduled for completion in 1973. They are going to move that unit to Three-Mile Island and it will be designated as Three-Mile No. 2. Oyster Creek No. 2 will be built with a 1975 completion date. They are doing this because of their problem of trying to get a job done on time in New Jersey. An announcement on this change will be out in about a week. He said he would also notify Ernie Tremmel of this development.

At 2:40 p.m. the Commissioners and staff met with Admiral Rickover and Wegner (Deputy Director of the Division of Naval Reactors) to hear Rickover's case for continuing the policy of noncooperation with our NATO Allies in nuclear submarines.

Rickover later called to say that he has been distressed to learn that ex-Congressman James Van Zandt may be under consideration to replace me as Chairman of the Atomic Energy Commission. Rickover said he hopes very much that I will stay on as Chairman. He called me again a little later and said he

has talked to Lewis Strauss about my remaining as Chairman and found Lewis lukewarm to the idea because he prefers a Republican for this position.

At 2:30 p.m. I presided over Information Meeting 859 (notes attached).

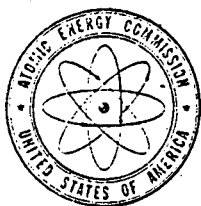
Pete came home from Berkeley, spending a few days with Lynne and Bill in Cambridge en route.

Thursday, December 19, 1968 - D.C.

At 10 a.m. Julie Rubin and I met with Italian Ambassador Egidio Ortona, and Umberto La Rocca, Counselor, Italian Embassy. The Ambassador opened the discussion by thanking me for the copy of the film taken at the 25th anniversary celebration of the first controlled nuclear chain reactor. He noted it was the first time he had the opportunity to observe himself on film. The first item discussed was the matter of enlarging the IAEA Board of Governors. I indicated I had discussed this subject with Minister Androtti in Vienna and the Ambassador stated he was aware of this discussion. The Ambassador also noted that a new Minister has since been appointed. In connection with enlarging the IAEA Board of Governors the Ambassador stated this was extremely important to Italy. He related it to the NPT by stating it is significant for public opinion purposes to indicate Italy is in on major decisions in the nuclear field. The Ambassador indicated it is not their intent to make this group too large but they consider their proposal of adding six, which would include Italy and Germany plus one member from Latin America, two from Eastern Europe, and one from Africa, as not too large an increase. The Ambassador indicated he has talked to Secretary Rusk personally on this matter. He asked me for AEC support for the Italian proposal in our participation in meetings in Vienna. I was noncommittal in my response to the Ambassador's request and indicated I would review the matter with staff.

The second item introduced by the Ambassador was the gas centrifuge for enriching uranium. He stated Italy wanted to take part in the development of this process and referred to the recent U.K., Dutch, and German agreement. He expressed understanding of this being a classified area and requested that a U.S. veto for Italian participation due to the classification not be the deciding factor in their joining others in centrifuge development. The Ambassador repeated their interest in participation in this project in preference to just being able to enjoy the results as a later member of some broader enriching arrangement. He noted the membership of Italy in EURATOM, as well as some of the other participants in the U.K., Dutch, and German arrangement, and also noted Italy's interest and support for the U.K. bid to enter the common market. A meeting with the State Department was referred to on this matter and there was an indication of a planned follow-on meeting with AEC participation.

The Ambassador repeated again his request to me that a U.S. veto not be the bar for Italian participation in gas centrifuge work. I cautioned the Ambassador to not place too much dependence on the promise for the gas centrifuge. I indicated I am optimistic but that a large amount of work and expenditure of funds for many years would be required to make this process competitive with our present gaseous diffusion system. The Ambassador stated that it is his understanding the Dutch are ahead of others in this development. I responded by indicating they may be further along than some others but their progress is still very small on the total yardstick of achieving a reliable operating system. In answer to a specific question from the Ambassador, I acknowledged



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

COPY NO. 2  
December 18, 1968

INFORMATION MEETING 859

2:40 p.m., Wednesday, December 18, 1968, Chairman's Conference Room, D.C.

1. Commissioners' Discussion with Admiral Rickover

\*\*\*\*\*

2. Benham - Packard Events at NTS

The General Manager reported staff action on schedule procedures has begun. (AGMMA)

3. Mr. Lou Roddis' Telephone Call to the Chairman re Oyster Creek 2 and 3-Mile Island Nuclear Plants

4. AEC 783/103 - Proposed Draft Bill by Interior Department to Amend the Federal Water Pollution Control Act

Approved with changes. (GC-Rubin)

*[Disputed]*

5. AEC 901/403 - Proposed Visit to LASL by USSR Nationals

Approved. (AGMIA)

\*\*\*\*\*

6. Mr. Wells' December 18 Memorandum re Board Members for Future Hearing

Approved. (Chm. AS&LBP)

\*\*\*\*\*

7. Dr. Beck's Oral Report on Niagara Mohawk
8. December 2 Letter from Dr. Palladino re Request to Visit Japan

The Commissioners requested Dr. Palladino visit Japan as an individual with payment of expenses by the Japanese. (ADRA-SECY)

\*\*\*\*\*

9. AEC 1180/20 - Support of the Canal Study Commission's Nuclear Excavation Program  
Preparation of a report for Dr. DuBridg is requested. (AGMR&D-PNE)
10. AEC 1111/11 - Reimbursement of AI IR&D Costs for AI-FY 1968  
Staff may proceed. Commissioner Johnson will review AEC policy on IR&D reimbursement. (DC)
11. AEC 262/130 - Proposed Contract Extension at Savannah River  
Noted. (DC)
12. General Manager's Oral Report on Soviet Underground Tests
13. Mr. Erlewine's Oral Report on FRC Recommendation re Uranium Miner Exposure Limits
14. Chairman's December 18 Letter to Senator Proxmire re Restraints on Effective Economic Analysis  
Signed and dispatched. (Rubin)
15. Commissioner Johnson's December 18 Meeting with Mr. Bauser, JCAE, re Seminar on Diffusion Plant Studies
16. Mr. Bauser's, JCAE, Query to Commissioner Johnson re Report on U.S.-U.K. Gas Centrifuge Discussions
17. Telephone Call to Commissioner Johnson from Mr. Robert Ginna, Rochester Gas and Electric, re Peachbottom Facility
18. Commissioner Johnson's Visit to the Peachbottom Facility

19. Commissioner Costagliola's Report on His December 17 Meeting with Messrs. Bauser and Murphy, JCAE, re Visit to NATO Facilities in Europe

W. B. McCool  
Secretary

5:10 p. m.

PRESENT:

COMMISSIONERS:

Chairman Seaborg  
Commissioner Ramey  
Commissioner Tape  
Commissioner Johnson  
Commissioner Costagliola

STAFF:

Mr. Hollingsworth  
Mr. Bloch  
Mr. Rubin  
Mr. McCool  
Adm. Rickover\*  
Mr. Wegner\*  
Mr. Givens\*  
Dr. Kavanagh\*  
Mr. Kratzer\*  
Mr. Ferguson\*  
Mr. Kull\*  
Mr. Schur\*  
Mr. Wells\*  
Mr. Yore\*  
Dr. Beck\*  
Mr. Erlewine\*  
Mr. Shapar\*  
Dr. English\*  
Mr. Hamburger\*  
Mr. Smith\*

DISTRIBUTION:

Commissioners  
General Manager  
General Counsel  
Secretary

\*Attendance by Topic (s)



that the AEC has a development program in the gas centrifuge area. The Ambassador concluded the discussion by indicating there has been extensive cable traffic with Rome on both of these subjects and he again requested my assistance along the lines of Italian interest.

At 10:30 a.m. the Commissioners (except Ramey), Bob Hollingsworth, Ed Bloch, Milt Shaw, and George Kavanagh met with Charles D. Harrington (President of Douglas United Nuclear Corporation), R. W. Hallet (Vice President), O. C. Schroder, and Carl Kuhlman to hear their pitch to be the operators of the FFTF at Hanford.

At 11:55 a.m. I called Gustave O. Arlt (President, Council of Graduate Schools) in response to his letter of December 17th regarding the inquiry he had from the editor of the Educational Record, a quarterly of the American Council on Education, as to whether they might publish my December 4th talk in their midwinter issue. I said I would be inclined to let them publish it in the Educational Record in order to get wider distribution for the talk. He agreed that this would be wise, even though CGS will publish the talk in the proceedings of the December 4th San Francisco meeting, which, of course, will receive a much narrower distribution. Arlt said he would tell the editor of Educational Record that I have agreed to let them publish the talk. I said that I would, of course, want to be sure to read proof; Arlt agreed and said he would mention this.

At 12 noon I called W. O. Milligan and we discussed plans for the November 16-18, 1969, Welch Foundation Conference on the Transuranium Elements, as to program, speakers, etc. I said it is my understanding that Strutinsky is on leave from Russia for a couple of years, doing research at the Bohr Institute in Copenhagen. I asked Milligan to send a duplicate of the letter to his new address, inviting him to speak. I asked that Ben Mottelson and Chin-Fu Tsang be invited to attend, and I said I would send him the addresses. He mentioned that I would give my talk at the very start of the Mendeleev Symposium. The dinner speaker spot is still to be filled; I said we might wait a little while yet, and then maybe try to get Lee DuBridge, or someone like that. He said the Welch Foundation approved the money for the Houston Museum of Science. The building is well under way, and they claim it will be ready before the November conference. Milligan thought he would have the representative of the Museum come to the November conference, and allow him two minutes to invite the conferees to visit the Museum. The Museum has a large periodic table, and they would like me to pose for a picture in front of it. I told him that the ANL symposium has been dropped. There will be a limited session regarding the 25th anniversary of the discovery of americium and curium - maybe in October 1969. Milligan said he would keep me informed as replies are received from those invited to participate in the November conference in Houston.

At 12:30 p.m. I hosted lunch in the AEC lunchroom for John O'Leary (Director, Bureau of Mines), Harry C. Allen, Jr. (Assistant Director, Minerals Research), and J. Watkins (Director, Petroleum Research). Commissioners Tape, Johnson, and Costagliola, Bob Hollingsworth, Ed Bloch, Spofford English, John Erlewine, John Kelly, Julie Rubin, and Robert Ritzmann were present. We discussed our Plowshare underground engineering experiments. O'Leary emphasized their importance, and said gas recovery is urgent and most important.

At 2 p.m. I met with Harry Smyth and told him I have recommended to Congressman Hosmer and to Lee DuBridge that they recommend to President-elect Nixon that he (Smyth) be kept on as Ambassador to the IAEA. I also said I would make the same personal recommendation if the opportunity presents itself. Smyth said it

was to discuss this that he had come to see me. Smyth told me about the difficulty he has had keeping any liaison with our U.N. Mission in New York. I suggested that he call on the new U.N. Ambassador as soon as possible and try to find opportunities to meet with him and his staff, and to sit in with the U.S.-U.N. Mission at meetings in New York. I said if he took the initiative I am sure he would find that it would work out satisfactorily.

At 2:30 p.m. Commissioners Tape, Johnson and Costagliola, and I, with General Giller, Bob Hollingsworth, Ed Bloch, and others, assembled in my conference room to hear reports from Nevada at 11:30 a.m. (Nevada time) on shooting BENHAM. It went well, no venting, no particular damage. I called Bromley Smith, who will inform Walt Rostow (ill with the flu) and President Johnson (in Bethesda Naval Hospital with the flu).

At 3:05 p.m. the Commissioners and staff met with Norman Anderson (Director, Molecular Anatomy, MAN, ORNL), Alexander Hollaender (Senior Research Adviser, ORNL), and Dr. James Liverman (Assistant Director, ORNL), to hear their description of the bio-medical program (ultra centrifuge virus separation, DNA, etc.) of ORNL.

We had our annual office staff Christmas party (buffet supper) at our home this evening.

Friday, December 20, 1968 - Germantown

I taped the AEC Year End Statement.

At 9:55 a.m. I presided over Regulatory Information Meeting 322 (notes attached).

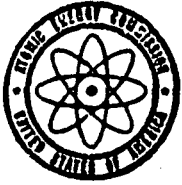
At 10 a.m. I presided over Information Meeting 860 (notes attached).

Julie Rubin, Justin Bloom, and I had lunch with Larry J. Stallings, the left line backer with the St. Louis Cardinals football team, who is working in the Division of Reactor Development during his two-year armed services period of service. During the last two football seasons he flew each weekend to join the St. Louis team for the game. We discussed football players and teams throughout the NFL. He thinks that the Redskins' playing personnel is not too bad, but Otto Graham's coaching staff is not too good, which accounts for the team's poor showing.

I sent a letter of agreement regarding the land for the 200 BeV Accelerator to Governor Samuel Shapiro of Illinois.

We are having trouble with HEW Secretary Wilbur Cohen, who has contacted the Principals and President Johnson in an effort to go around the recent decision of the Federal Radiation Council in setting future radon levels in uranium mines. This is a blow to the Federal Radiation Council. The levels and rate of attainment suggested by Cohen, augmented in his efforts by Interior Secretary Willard Wirtz, are unrealistically low and not based on scientific facts.

The Commissioners and staff met with the Regulatory In-House Study Group to hear a progress report on their study of means to improve the AEC regulatory process. Panel members were: Carroll Zabel (Acting Chairman), Stephen Hanauer, David B. Hall, Pete Morris, Edson Case, John Crawford, Marcus Rowden and Ray Smith, Secretary.



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

REGULATORY INFORMATION MEETING 322

9:55 a. m. , Friday, December 20, 1968, Room A-458, Germantown Headquarters

1. Mr. Price's December 19 Memorandum re Proposed Issuance of Provisional Operating License to Jersey Central Power and Light Company for Oyster Creek Nuclear Power Plant Unit No. 1

Approved. (ADRA)

W. B. McCool  
Secretary

9:56 a. m.

PRESENT:

COMMISSIONERS:

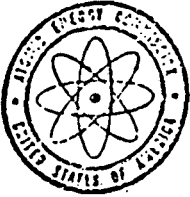
Chairman Seaborg  
Commissioner Tape  
Commissioner Johnson  
Commissioner Costagliola

STAFF:

Dr. Mann  
Mr. Morris  
Mr. Wells  
Mr. Ferguson  
Mr. Rubin  
Mr. Ryan  
Mr. McCool

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Dir/Regulation  
General Manager  
General Counsel  
Secretary



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

COPY NO. 2  
December 20, 1968

INFORMATION MEETING 860

10:00 a. m., Friday, December 20, 1968, Room A-458, Germantown Headquarter

1. Commissioner Ramey's December 13 Memorandum re Possible Improvement in AEC's Section of the U. S. Government Organization Manual

Staff action is requested. (GC-SECY)

2. Chairman's December 19 Meeting with Ambassador Ortona, Italy

The Chairman reported the Ambassador had discussed the following:

- a. Enlargement of the IAEA Board of Governors;
- b. Gas Centrifuge

Staff action is requested. (AGM-AGMIA)

3. AEC Citation Medalists

Approved. (SECY)

4. National Civil Service League Award Nominees

Approved. (PER)

5. Lawrence Award Ceremony Locations (May 24 Letter from Harvey White and Chairman's June 4 Response)

The Commissioners thought it desirable that some, but not all, of the Lawrence Award Ceremonies be scheduled at Berkeley and suggested the 1969 ceremony be scheduled in Washington, D. C. on April 30. A response to Dr. White's letter is requested. (SECY)

6. Reappointment of ACRS Member (See Secretary's December 19 Memorandum)

Approved. (SECY)

7. Meeting Schedule Guidelines (See Secretary's December 19 Memorandum and December 12 Memorandum re Meetings Scheduled in Bethesda)

Reaffirmed. (SECY)

8. Commissioners' Meeting with the General Manager to Discuss Policy Issues, February 1969, Germantown

To be scheduled. (SECY)

9. FRC Standards re Uranium Miners

Commissioner Tape will inform Mr. Hughes, BOB, of the AEC position. (Rosen-AGMO)

10. Agenda for the Week of December 23, 1968

Approved. (SECY)

11. NTS Events (See General Giller's December 19 Memorandum)

Noted. (AGMMA)

12. AEC 1096/96 - Letter to Governor Shapiro re Land for NAL

Approved with changes. (AGMO)

13. AEC 1083/130 - Second Conference on Nuclear Isospin - March 13-15, 1969

Approved subject to Commissioner Ramey's concurrence. (AGMMA-SECY)

14. AEC 809/129 - Proposed Export of Neutron Generators to East Germany

Approved. (AGMIA)

15. AEC 986/14 - Gift of Special Materials to LAEA

Noted. (AGMIA)

16. Pending Contractual Matters Report No. 288

Noted. (PAR)

W. B. McCool  
Secretary

11:45 a. m.

PRESENT:

COMMISSIONERS:

Chairman Seaborg  
Commissioner Tape  
Commissioner Johnson  
Commissioner Costagliola

STAFF:

Mr. Hollingsworth  
Mr. Bloch  
Mr. Ferguson  
Mr. Kull  
Mr. Rubin  
Mr. Ryan  
Mr. McCool  
Mr. Erlewine\*  
Mr. Winter\*  
Dr. Friedman\*

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General Manager  
General Counsel  
Secretary

\*Attendance by Topic (s)

At mid-afternoon I attended and spoke at the Annual AERWA Christmas party in the cafeteria; I commented on the gifts I had been given at last year's party. Commissioners Ramey and Costagliola (whom I introduced to the group) were present. Commissioners Tape and Johnson were enroute to Cape Kennedy to witness tomorrow's (scheduled) launch of Apollo-8. Commissioner Costagliola and I then went to the Bethesda Headquarters and I spoke briefly to them after participating in the AERWA reception.



AERWA Christmas Party - December 20, 1968, Germantown, Maryland

L to R (Front Row): Jerome Snyder, (Unknown), Ed Ferguson (choral group director), Seaborg and Lee Sellers

Saturday, December 21, 1968

I watched on television the successful launching of Astronauts Frank Borman, James A. Lovell, Jr., and William A. Anders from Cape Kennedy (at 7:51 a.m.), on their Apollo 8 flight to circle the moon.

I read AEC papers and worked on the article, "Synthetic Elements," that Justin Bloom and I are writing for the Scientific American.

Sunday, December 22, 1968

I worked again on the Scientific American article.

I watched the Baltimore Colts - Minnesota Vikings football game (the Colts won, 24-14) and the Oakland Raiders - Kansas City Chiefs game (the Raiders won, 41-6).

Larry Novey (Peter's former apartment mate at Harvard) joined us for dinner. At 3 p.m. we saw a television broadcast from Apollo-8 which was 140,000 miles out in space.

Steve is suffering from a rather bad case of the flu which began yesterday.

Late in the evening (about 10 p.m.) Lynne and Bill arrived by plane from Boston to spend the holidays with us.

Monday, December 23, 1968 - Germantown

I presided at Information Meeting 861 (notes attached) at 10:20 a.m.

I had lunch in the cafeteria with Ted Sherburne and Frank Sartwell of Science Service, Donald Maley (Associate Editor, Editor and Publisher, New York), Robert Cochran (Executive Editor, Newspaper Enterprise Association, New York), and Larry Cox (photographer, NEA) to discuss the article that Maley is preparing for Editor and Publisher on Science Service.

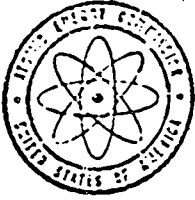
I met in my office with President David L. Shaw and William Bush of United Nuclear Corporation. Julie Rubin was also present. Shaw stated the purpose of his visit was to review with me the current status of United Nuclear Corporation and where he sees their future position. He reflected on the Combustion Engineering purchase of the Olin-Mathieson block of 21 percent of UNC stock and the eventual Justice Department intervention. Shaw indicated the Combustion Engineering action was clearly illegal and the results substantiated this position.

The current move by Ashland Oil to acquire the Combustion Engineering stock in UNC and also tender an offer for enough additional shares to obtain 67 percent control of the company was described as having more subtle implications. It was Shaw's view that UNC is in a unique position of being the only competitive source in the fuel cycle that a utility could look to other than the original manufacturer that supplied the reactor. Any takeover of his company could result in elimination of this important competitive factor in the fuel cycle.

Based on this conclusion, Shaw indicated UNC has advised Ashland Oil that they would resist by any means a takeover and would treat any other conglomerate or attempt to acquire UNC in a similar manner. Ashland Oil's initial reaction is to defer their initial plans for acquiring the Combustion Engineering stock in UNC and the tender offer to buy additional shares from private sources.

Shaw indicated UNC could see no advantage in becoming a part of a larger company. They have adequate capital of their own plus adequate borrowing capacity and are in a position to spin off enough cash as dividends and to support R&D. In any merger with a larger company this present position may not continue. Shaw repeated it is UNC's intent to throw any roadblock necessary in the way of a takeover of their company. In the interim, UNC plans to try and





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

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NOV 86

COPY NO. 3  
December 23, 1968

INFORMATION MEETING 861

10:20 a. m., Monday, December 23, 1968, Room A-458, Germantown Headquarters

1. Mr. Slaton's December 18 Memorandum re "Annual Report to Congress for 1968"

Staff is to check with Commissioners Ramey and Tape for their comments. (PAR-SECY)

2. AEC 1283/32 - Reduction in Uranium Procurement Under AEC Contracts

Discussed and to be rescheduled in early January 1969. (AGMP&P-RM-SECY)

3. AEC 1219/21 - Reactor Operations at Richland

Discussed and to be rescheduled in early January 1969. (AGMP&P-OC-SECY)

4. Commissioners' Meeting with Battelle.

To be scheduled. (SECY)

5. AEC 459/54 - Invitees for the Uranium Enrichment Seminar

Approved with changes. (AGMP&P)

6. AEC 181/140 - Contract Procurement Study Group

Approved. Staff recommendations are requested. (DC-Ryan)

7. Memorandum for the President re Radiation Protection Guidance for Federal Agencies

The Commission's position is to be expressed in a letter to the BoB.

8. AEC 374/198 - Mixed Forces of Nuclear Weapons

Noted. (AGMMA)

9. Post Benham Briefing

Approved. (AGMMA)

10. AEC 1287/2 - Enrichment Service Proposal

Noted subject to Commissioner Ramey's comments. (EAGM)

11. Draft Department of State Letter to the JCAE re Enriched Uranium for Italian Nuclear Powered Ship

Commissioner Tape said a draft will be circulated to the Commission for their comments. (Rosen)

W. B. McCool  
Secretary

11:3

PRESENT:

COMMISSIONERS:

Chairman Seaborg  
Commissioner Ramey  
Commissioner Tape  
Commissioner Johnson

STAFF:

Mr. Bloch  
Mr. Brown  
Mr. Ferguson  
Mr. Kull  
Mr. Rubin  
Mr. Griffin  
Mr. McCool  
Mr. Quinn\*  
Mr. Ertewine\*  
Mr. Nininger\*  
Gen. Giller\*

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General Counsel  
Secretary

\*Attendance by Topic (s)

interest some friendly source in acquiring the 21 percent block of stock held by Combustion Engineering. Shaw stated he is attempting to convince an individual utility or a group of utilities that it would be in their best interest to acquire this block of stock. I asked if there is any barrier to utility ownership of this stock and Shaw indicated it is their view this is permissible since utilities presently own coal companies and railroad systems. Shaw then added that it is United Nuclear's intent to arrange with the utilities for UNC to buy back the stock with cash or in exchange for fuel at some future date. It was implied the reason for UNC not acquiring the stock directly is due to a legal requirement that all stock owners be offered the same conditions and the Combustion Engineering block may command more favorable terms.

Shaw made a specific request to me for AEC to evaluate the merits of UNC retaining its position as an individual fuel supplier and further requested that the AEC use its prestige to influence continuation of this position by UNC. This influence should be directed at utilities that might show interest in acquiring the UNC stock and possibly to the Justice Department in supporting UNC's position that they should remain as an effective competitive source in the fuel cycle. Shaw also added that some previous Commission statements of concern about petroleum companies becoming a dominant factor in the total energy picture also is a factor to be considered.

I indicated I would bring this to the attention of the Commission but that this would not likely occur until our next meeting on January 6, 1969. Shaw thanked me for listening and expressed appreciation for any consideration the Commission might give to supporting their position.

I rode with Bill and Lynne to Woodward and Lothrop's in Chevy Chase and took Dianne to talk to Santa Claus and have her picture taken with him.

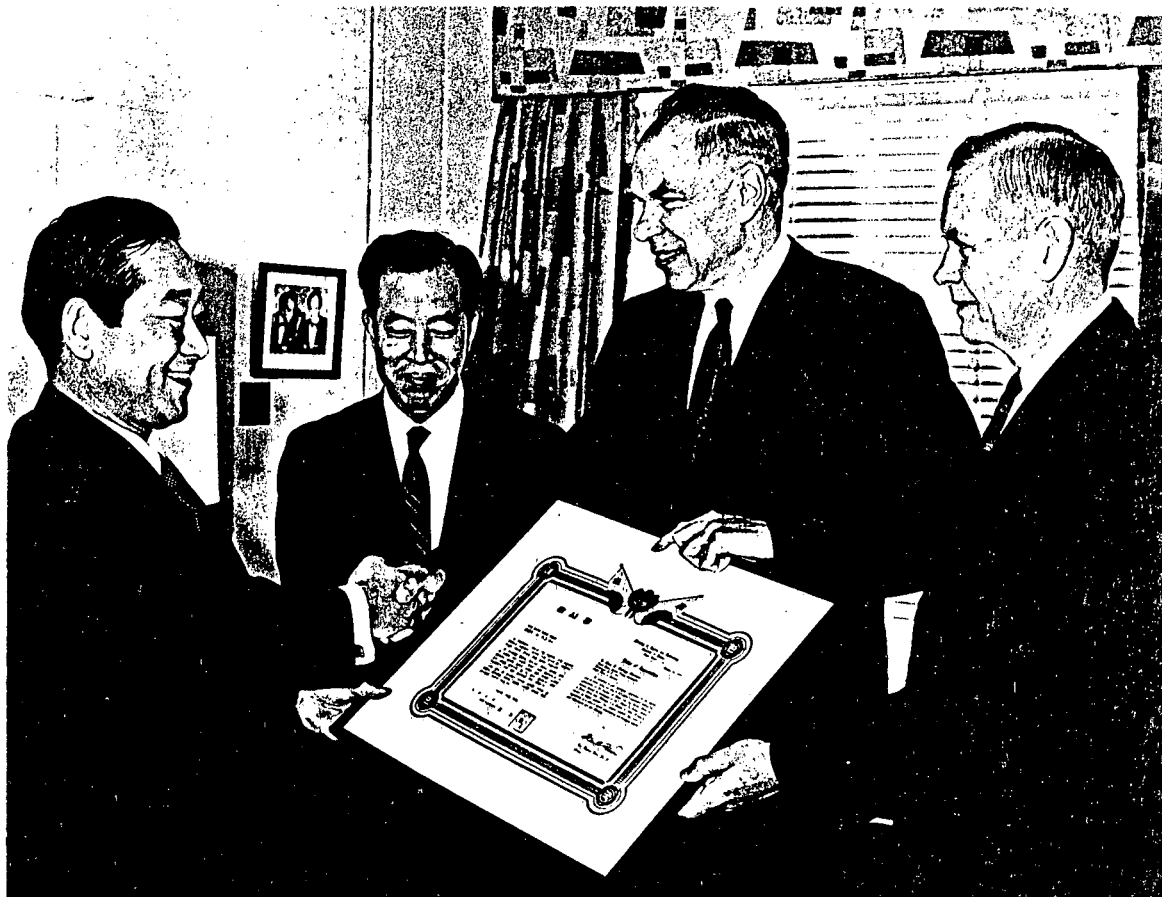
Our while family had dinner together.



Dianne Seaborg with Santa Claus at Woodward and Lothrop's Department Store, December 23, 1968

Tuesday, December 24, 1968 - D.C.

Minister Yoon Ho Kim of the Korean Embassy, with Sung Ik Kang, Education Attaché of the Korean Embassy, came to my office and presented to Tape and me a framed letter of appreciation. Burrell Wood, Charles Pelzer, Jim Cannon and William Yoemans were also present. Ed Westcott took pictures.



Presentation of Certificate of Appreciation from Korean government, H Street Office, December 24, 1968

L to R: Minister Yoon Ho Kim, Sung Ik Kang, Seaborg and Tape.

Rickover called to say that he talked to Senator Jackson in Seattle yesterday and found that Jackson is a strong supporter with President Nixon of my remaining as Chairman of the AEC.

I was interviewed on tape for the Westinghouse "Sales Point" program by Harry Freer and J. J. Hill of Storycraft, Cleveland, Ohio, the contractor for the Sales Point program. W. W. Culbertson (the Washington, D. C. Westinghouse representative) was also present. The interview was based on my Hayden-Stone financial forum talk which I gave in New York on October 30th.

Eugene Rostow (Under Secretary of State) called me at 12:30 p.m. He said that in the last few days a problem has come to his attention, concerning a very sensitive project which seems to have gotten a little off the track. This involved a trip to the Mid-East by an Oak Ridge team, and some tentative arrangements they made with the Egyptians. The idea was approved last September, but Rostow said they feel that "the troops out there went way beyond their instructions and got into a situation that may become embarrassing and tricky. They invited the Egyptian scientists to visit Oak Ridge; such a visit at this time is just about unthinkable. This may be the right carrot to hold out to the Egyptians, but the group went too far." Rostow said they would call Ramey and the officials at Oak Ridge and arrange for a meeting to try to bring this under control. I said I understand entirely, and this meeting ought to be a good first step to see where we go from there.

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

I went to the Christmas buffet at the Metropolitan Club with Arnold Fritsch (in town to be with his family at Christmas), Pete, Dave and Bill as my guests.

Chet and Lynn Joy arrived from North Carolina at about 3 p.m. to spend the holidays with us.

Helen and Lynne went Christmas shopping this afternoon.

We had our traditional Christmas eve dinner featuring potato sausage. Following this, we opened our Christmas packages which had been placed under the tree. I took movies during dinner and the opening of the presents.

I saw the television broadcasts showing good pictures of the moon, from lunar orbit at 7:31 a.m. and 9:43 p.m., each lasting some 20 to 30 minutes.

Wednesday, December 25, 1968 - Christmas Day

We got up, more or less one at a time, and opened our Christmas presents left under our tree by Santa Claus.

Allyne Snyder came over for a while and later Larry Novey came over.

We had our Christmas dinner about 5 p.m. with our whole family, the Joys and Larry Novey.

We watched the television broadcast from Apollo-8 at about 4:15 p.m.; it lasted about 20 minutes.

I worked on my Rosenfield Lectures that I will give at Grinnell College on January 29 and 30, 1969.

December 24, 1968

The President  
The White House

Dear Mr. President:

I have the pleasure of submitting the biweekly report on significant developments in the atomic energy program:

1. The underground BENHAM weapon test was conducted at 11:30 a.m., EST, Thursday, December 19. The device performed as expected, and there have been no substantiated reports of damage outside of the test site. There was no release of radioactivity. I have sent further details to your office in separate classified correspondence.
2. AEC plans to sign uranium toll enrichment contracts within the next few months involving fuel for seven power reactors in Germany, five in Japan, one in The Netherlands, and two in Switzerland, together with several research and test reactors in France. The maximum total revenue from these contracts could amount to about \$326 million.
3. Three briefings on the safety aspects of explosive tests were given last week to public groups in areas near the test sites. One concerned the series of conventional (natural gas) explosions planned to begin January 13 at the Tatum Salt Dome in Mississippi as part of DOD's Project Vela to explore seismic techniques for test detection. The other two briefings concerned the BENHAM nuclear test - one was to representatives of the group associated with Howard Hughes, and the other was to a business and civic group. AEC also expects to give technical briefings on underground nuclear test safety to representatives of the Governors of Nevada, California, Oregon, Idaho, Utah, and Arizona at the Nevada Test Site about mid-February. A briefing of this type was originally scheduled prior to the BENHAM test, but was postponed when it became evident that there would be very poor attendance.
4. A group from AEC and the Oak Ridge National Laboratory last month gave briefings in the United Arab Republic, Jordan, and Lebanon on dual-purpose power and desalting plants and associated agricultural and industrial development. Tentative plans were developed for cooperation between ORNL and the UAR atomic energy agency for studying the feasibility of such a complex in the UAR.

5. Senator Thurmond visited AEC's Savannah River Plant in South Carolina on December 16 and was given a two-hour briefing on its current activities and plans. He showed a special interest in the two reactors that were shut down in 1964 and last February as part of the cutback in plutonium production, the historical reasons for the shutdown of portions of the heavy water production plant, and a possible increase in the production of californium.
6. The Metropolitan Water District of Southern California announced plans to begin construction of a nuclear-powered desalting plant on a man-made island off Huntington Beach during the mid-1970's instead of this year as previously planned.
7. AEC has authorized funds for purchase of an educational reactor as part of its \$1.5 million exhibit at the Hall of Science of the City of New York, a permanent center for science education expected to open in 1971.
8. Approximately 150,000 people attended AEC's Atoms-In-Action demonstration center that recently closed in Seoul, Korea. A large number of Korean research groups used the gamma irradiation facility during the 30-day showing.
9. The Nuclear Materials Safeguards Training Program, conducted at AEC's Argonne National Laboratory near Chicago, graduated its first class on December 12. Of the 16 graduates, who are expected to fill supervisory and managerial jobs in safeguards programs, 11 are from the U.S. and five from foreign countries.
10. A "Radiation Control Study" by AEC's Grand Junction Office on the exposure of uranium miners to radiation indicates that improvements in ventilation are reaching the point of diminishing returns and that lowering the exposure level to four working-level months per year would require developing other means of control.
11. Radon from the solid residues at uranium ore processing mills presents little or no hazard to the public, according to the final report on a one-year sampling program by AEC, Public Health Service, and the Colorado and Utah Health Departments.

Respectfully,

(Signed) Glenn T. Seaborg

Glenn T. Seaborg

cc: Bromley Smith





*Hope you have a  
beautiful Christmas!*

*Helene and Glenn  
et al.*

The Seaborg's Christmas card- 1968  
L to R: Eric, Dave, Lynne, Bill, Pete, Steve, Dianne in front

Thursday, December 26, 1968 - D.C.

Jerry Tape told me about the continuing difficulties in getting Secretary Wirtz to agree to the compromise in the exposure of uranium miners (0.4 WLM by January 1, 1971, with a prior review of the evidence) agreed to by other members of the FRC.

I had lunch in the office with Justin Bloom.

I called Don Stewart to discuss some ideas about a celebration commemorating the 25th anniversary of the discovery of elements 95 and 96. I said the dates of discovery seem to have been about July 10, 1944, for element 96 and some time in December 1944, and January 1945, for element 95. I suggested that the best time to have such a celebration might be in October. Don said from a personal point of view he would prefer to have it later. I said it probably should be held on the Chicago campus since the work was done there. I suggested going back to Norman Nachtrieb and see what he thinks about it. Don said he had tried to contact him last week but had been unsuccessful. I told Don I would call Nachtrieb and see if he wants to do it.

I called Nachtrieb to ask him what he thought of having such a celebration on the Chicago campus. He said he is very much in favor of celebrations of this sort and would be glad to talk to Chuck Daley, the Vice President for Development and Planning to see what could be worked out. He said he would drop me a line within the next week or two. (It was decided later to have this celebration in Houston in November at the time of the Welch Symposium on the Transuranium Elements.)

We had the whole family, plus the Joys and Lynne's friend Debbie Ehrlich (from the University of Chicago) with us at dinner.

Friday, December 27, 1968 - D.C.

Commissioners Tape and Costagliola and I were briefed by John Kelly on the status of Australian plans to consider the excavation of a harbor on the northwestern coast of Australia by the use of nuclear explosives. The matter was brought to Kelly's attention by Edward Teller, who had been in touch with an organization headed by an American, Daniel Ludwig, of New York City, who is reportedly one of the richest men in the world. Ludwig owns the National Bulk Carriers Corporation in the U.S. and the Sentinel Mining Company in Australia. The latter organization is involved in exploiting large iron ore deposits in Australia. A harbor is needed to permit the shipment of iron ore from Australia to Japan. Ludwig has considered investing five to six million dollars (later raised to six to eight million dollars) for the construction of a harbor by conventional means. It is assumed that he would invest at least this much in a harbor excavated by Plowshare devices and, therefore, PNE and LRL personnel have been in touch with the Ludwig organization. Their contact is apparently a man by the name of Reed.

Glen Wirth and Milo Nordyke have been to New York to brief Ludwig on the use of nuclear explosives and they received a good reception. In fact, Ludwig has hired Holmes and Narver to act as consultants to him on the technical aspects of this matter.

The optimum location for the harbor is said to be at Cape Keraudren. A natural bay exists there, but access by ships is restricted by the shallow inlet to the bay. It is proposed that a deep water channel be created by exploding seven 200 KT devices in a row at a shallow depth, producing a channel 1,500 feet wide by 5,000 feet long.

The Ludwig organization wants to complete the harbor by 1971 and therefore a commitment as to the procedure to be employed must be made by March 1969. Reed called Kelly on Thursday to say that the completion date was slipping a little because of problems in negotiating a contract with the Japanese to purchase the iron ore. LRL believes that the project could be accomplished on the time scale indicated if it could begin manufacturing the seven explosives in this fiscal year. The device design could be tested in the planned STURDEVANT event. The STURDEVANT event is planned for late this fiscal year or early next fiscal year. LRL believes that about \$12 million would be required for device development, including two tests.

I raised the question of the status of tungsten isotope separation and Kelly responded that information from Oak Ridge indicated that about \$1 million would be required to start up the process in Oak Ridge and that this would be the major cost in producing sufficient amounts of tungsten enriched in tungsten-182 and tungsten-183 to meet the needs of the Plowshare devices.

I watched the Astronauts' splash down with Apollo-8. They landed on schedule at 10:51 a.m. (EST) about 5,000 yards from the Yorktown in the Pacific ocean southwest of Hawaii, after a 147-hour trip to the moon and back.

The AEC announced today the eighth Chinese nuclear test, a three MT shot at Lop Nor, conducted at 2:30 a.m. (EST) this morning.

I had lunch in my office with Bloom.

I received word from the BOB that President Johnson has signed off on AEC's FY 1970 budget. We got by with only the \$64 million cutback and escaped the additional \$26 million cutback, which we regard as a great triumph.

I met with Boyd Lewis (President of the Newspaper Enterprise Association) and Ted Sherburne to discuss the great progress being made with Science Service News Syndicate under NEA direction. I had my picture taken with Lewis for use in a story on the Science Service-NEA relationship.

The family all had dinner together, joined by Bill Puppa. The Joys ate out tonight.

#### Saturday, December 28, 1968

Helen was quite sick with the flu today so the large group in our house had to make their own meals. Lynne and Lynn prepared a fine spaghetti dinner; Debbie joined us.

I spent most of the day working on a paper, "Elements 95 and 96 - 25 Years Ago," describing the discovery of these elements.

Chet, Steve, Eric and I took a hike in Rock Creek Park.

#### Sunday, December 29, 1968

Helen is still quite sick. Bill and Lynne, with Peggy Willig, rode back to Cambridge with Larry Novey in his car. The Joys left to go back to North Carolina.

I took a hike with Suki in Rock Creek Park and I worked on my talk on the discovery of elements 95 and 96.

I saw on television the football playoff games. The New York Jets beat the Oakland Raiders, 27-23, and the Baltimore Colts beat the Cleveland Browns, 34-0.

We picked up food at the Hot Shoppe for our dinner.

#### Monday, December 30, 1968 - Germantown

I spent about two and one-half hours recording, with Dick Hewlett, for the Lyndon B. Johnson library, an interview concerning various aspects of my AEC experiences.

Justin Bloom and I had lunch in the cafeteria with Dan Miller to discuss a possible program to rebuild the Berkeley HILAC so that it can accelerate ions as heavy as uranium. This would be in place of the Omnitron which is not in the FY 1970 budget - not even the A&E money.

A copy of my 1968 year end statement is attached.

After I left the office I attended a stag reception at the State Department (Monroe-Madison Rooms) given by Secretary Rusk for William Foster in honor of his retiring as Director of the Arms Control and Disarmament Agency.

We had a take-home dinner from the Hot Shoppe.

Tuesday, December 31, 1968 - Germantown

Commissioner Johnson and I met with Ed Bloch, Bill Voight, George Quinn, Bob Hollingsworth and John Abbadessa to discuss the shutdown of the Hanford C Reactor and the effective shutdown of one K Reactor via sequential operation of the two K Reactors. This was preparatory to Commissioner Johnson and I meeting with Senator Jackson on Saturday morning to break the news to him.

I had lunch with Dick Hewlett and Julie Rubin to discuss my interviews for the Lyndon B. Johnson Library.

I tape recorded another interview (about one-half hour) with Hewlett for the Johnson Library.

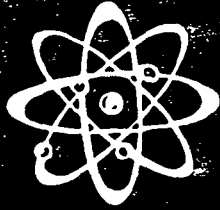
Julie Rubin and I visited Louise Herbert, chief AEC telephone operator, and four operators on duty to wish them a Happy New Year.

Helen is still somewhat sick so we had a Hot Shoppe take-home dinner.

Eric gave a New Year's Eve party for his friends, Joe Canary, Bennie Lagueruela, Harvey Washington and Scott Luria.

We all stayed up to see the New Year come in. As usual, we watched the Guy Lombardo broadcast from the Waldorf in New York City. We all drank a toast at midnight.

**AEC**



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

No. L-289  
Tel. (301) 973-3335  
or 973-3446

FOR USE IN NEWSPAPERS OF  
SUNDAY, DECEMBER 29, 1968

UNCL. BY DOI  
NOV 86

1968 YEAR-END STATEMENT  
BY AEC CHAIRMAN GLENN T. SEABORG

The year 1968 was marked by significant progress in the peaceful nuclear energy program both at home and abroad. The atom played an increasingly important role in nearly all aspects of everyday life--in industry, in hospitals and in the home.

As we assess the gains made in the United States by the peaceful atom, we at the Atomic Energy Commission recognize that these advances could not have been made without the strong encouragement and support of President Johnson and the Congressional Joint Committee on Atomic Energy, as well as other persons in government and industry.

The most dramatic peaceful application of nuclear energy in the United States continued to be the generation of electricity. Fifty-six nuclear power plants are now operating or being built in the U. S., and some 44 more are planned. In 1968 the Nation's utilities contracted for 17 nuclear power plants, representing an initial capital investment of about \$2.5 billion. The AEC estimates that by 1980 the capacity of nuclear generating plants should be 120 to 170 million kilowatts, about 25 per cent of the Nation's total.

In 1968 an important step was taken toward the development of a new generation of reactors--"breeders," which will produce more fuel than they consume and produce inexpensive electricity. This year the AEC issued a comprehensive plan which will lead to the development of liquid metal-cooled breeder reactors.

Government and industry continued to examine the feasibility of large nuclear energy centers. These centers would be built around a nucleus of reactors which would produce heat

(more)

for the generation of electricity and for desalination of sea water. The great quantities of heat, electricity and desalted water could be used in nearby industrial and agricultural processes. The United States and the Commonwealth of Puerto Rico began studying energy centers which would generate 500,000 to one million kilowatts of electricity and desalt 25 to 100 million gallons of sea water per day for the arid coastal regions of Puerto Rico. An international study group has concluded that nuclear power and desalting plants are technically feasible to assist the arid Southwestern United States and Mexico. The AEC's Oak Ridge National Laboratory completed a report on large nuclear energy centers and began studying the possibility of placing such complexes in arid coastal regions of the Middle East.

To keep pace with the growth in nuclear power, the U. S. mining and milling industry stepped up efforts to increase uranium ore reserves. Industry indicated plans for about 100 million feet of exploration and development drilling through 1971, with the total cost expected to reach \$135 million. The projected drilling rate far exceeds the 10.7 million feet record level established in 1967. Plans for enlarging uranium mills and building new ones were also announced.

The joint AEC/National Aeronautics and Space Administration cooperative effort essentially completed the technology program leading to a nuclear-powered rocket engine and began work on a flight-rated engine. At the Nuclear Rocket Development Station in Nevada the largest experimental nuclear rocket reactor yet developed was successfully tested. The operating time and power level--about 32 minutes with a top power of 4,200 thermal megawatts--exceeded the requirements of a manned lunar mission.

Three cratering experiments were conducted in the Commission's Plowshare program for peaceful uses of nuclear explosives. In March, project Buggy, the first nuclear row-charge experiment, consisted of the simultaneous detonation of five nuclear explosives. Each was implanted 135 feet deep in hard rock and had a yield of about one kiloton. The resulting crater has a smooth bottom and sides, and its dimensions are about as predicted--255 feet wide, 70 feet deep, and 865 feet long. The other cratering experiments were Cabriolet in January, which had a yield of 2.5 kilotons and produced a crater 360 feet across and 120 feet deep, and Schooner in December, which had a yield of about 35 kilotons. Schooner produced a crater with a diameter of approximately 800 feet and a depth of about 270 feet. The information from these

experiments will be used by the Atlantic-Pacific Interoceanic Canal Studies Commission in determining the best route and means for constructing a new sea-level canal across the American Isthmus.

The AEC broke ground for two new particle accelerators in 1968. A ceremony held in December signaled beginning of construction of the first permanent structure of the National Accelerator Laboratory near Chicago, a complex which will include a 200-billion electron volt proton accelerator. This "atom smasher," which will help man explore the nature and behavior of sub-nuclear particles, will be the world's largest machine for basic science research. In February the AEC began construction of the Los Alamos Meson Physics Facility, a medium energy linear accelerator at Los Alamos, New Mexico.

The many uses of radioisotopes in industry and medicine increased in 1968, and AEC-sponsored research in medicine became increasingly fruitful. The successes in heart transplants were made possible partly because nuclear medical research has provided needed knowledge on transplant rejection.

Technical feasibility and conceptual design studies have been completed on radioisotope power supplies for implantable heart assist devices, such as nuclear engines for blood pumps, and on power supplies for a fully implantable artificial heart.

AEC research at Brookhaven National Laboratory in New York brought a dramatic advance in the treatment of Parkinson's disease. Brookhaven developed a treatment using the drug L-Dopa and finds that in patients who can tolerate the drug their improvement ranges from modest to remarkable. This palliative treatment is now being clinically tested in other hospitals.

In addition to the development of peaceful uses of nuclear energy, the Commission conducted--in coordination with the Department of Defense--the research, development, testing and production of weapons necessary to assure the United States a strong nuclear defense capability.

#

Wednesday, January 1, 1969

This was a very cold day so we stayed in all day. Helen is feeling a little better.

I worked on my talk on the discovery of elements 95 and 96.

I watched the Parade of Roses and the Rose Bowl game on TV. Ohio State beat the University of Southern California, 27-16.

Thursday, January 2, 1969 - Germantown

I had lunch in the cafeteria with Bob Hollingsworth, Ed Boch, Don Kull and Julie Rubin to discuss issues that are coming up as we get into the swing of things with a new administration and a new Congress.

In the afternoon I was interviewed by Tex Reuter on the subject of the peaceful uses of atomic energy (taped) for the Mutual Broadcasting System's radio program "Capital Assignment." It will be broadcast at 8:36 P.M. on Monday, January 6th, 1969.

I tape-recorded another interview with Dick Hewlett for the Johnson Library.

Friday, January 3, 1969 - D.C. Office

At Information Meeting 862 (notes attached) we discussed, among other things, Israeli desalting, the study of the Australian Cape Keraudren Project (plowshare) and policy issues for President-Elect Nixon's consideration .

I had lunch in the office with Justin Bloom and Stan Schneider.

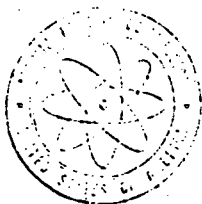
I attended a reception for the new California Senator and Mrs. Alan Cranston in Suite 4241 of the New Senate Office Building. I also met their two sons. I suggested to Cranston that he might want to visit the Livermore and Berkeley Radiation Laboratories. He said he would like to do so and that he would do anything he could to help these laboratories. I met Peter Goldschmidt, who represents the University of California in Washington.

I called Fred Seitz to ask him to serve on our Science Service Fund Raising Committee and he accepted.

In the evening, from 7 p.m. to 9 p.m., Helen and I attended a reception at the White House for members of regulatory agencies and their spouses (about 60-70 people). As we passed through the reception line in the Blue Room the President said Senator Jackson had called him, protesting the shutdown of the reactors at Hanford and told him he was meeting with me on this subject tomorrow morning. The President asked that I call him and let him know the outcome of this meeting and I said I would. The President, in his talk with Helen, spoke about his appreciation for all I had done to help him. Mrs. Johnson, while I was walking with her to the State Dining Room, spoke of the good years that we all have had in Washington.

At the reception gathering in the State Dining Room the President spoke movingly to the group, thanking us all for the help we have given him. He said he himself had chosen those of us invited tonight on the basis of our contributions to him and our country; everyone had accepted. Mrs. Johnson, Linda Robb and





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

COPY NO. 8  
January 3, 1969

INFORMATION MEETING 862

10:05 a.m., Friday, January 3, 1969, Chairman's Conference Room, D. C.

1. Executive Session Item

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2. December 24 Letter from Joseph Marrone re Gleason v. United States, et. al.

A proposed response will be circulated. (GC)

3. December 31 Letter from Senator Pastore to Joseph Marrone re Nuclear Energy Liability Insurance

Noted.

4. December 30 Letter from Walt Rostow re Israeli Desalting

Mr. Ryan reported the Department of State is drafting legislation and Commissioner Ramey will be in touch with them over the weekend.  
(Ryan-SECY)

5. Admiral Rickover's December 31 Memorandum re U.S. Policy on British Participation in Italian Naval Nuclear Propulsion Project

Commissioner Tape discussed briefly the proposed revisions to Admiral Rickover's December 31 draft letter to Senator Pastore and said coordination with the Department of State on the draft is in process.  
(AGMIA)

6. Agenda for the Week of January 6, 1969  
Approved. (SECY)
7. NTS Events (See General Giller's January 2 and December 26 Memoranda)  
Noted. (AGMMA)
8. AEC 811/218 - Preliminary Views on Study of Australian Harbor Project  
Approved. A draft letter from the President to Congressman Craig Hosmer is requested. A project cost analysis is also requested. (OC-PNE)
9. Policy Issues for President-Elect Nixon's Consideration  
To be scheduled prior to January 20, 1969. (EAGM-SECY)
10. AEC 1072/4 - Proposed Letter of Commendation to Director, ABCC  
Approved with revisions. (BM)
11. Recognition for AEC Personnel re the Benham Event  
For consideration as appropriate. (EAGM)
12. Responses to Queries re the Benham Event  
In preparation in staff. (AGMMA)
13. AEC 1287/3 - Agreements for Enriching Services with GE, Philadelphia Electric, Commonwealth Edison, and Westinghouse Electric  
Noted. (DC)

W. B. McCool  
Secretary

11:10 a.m.

PRESENT:

COMMISSIONERS:

Chairman Seaborg  
Commissioner Tape  
Commissioner Johnson  
Commissioner Costagliola

STAFF:

Mr. Hollingsworth  
Mr. Bloch  
Mr. Kull  
Mr. Schur  
Mr. Rubin  
Mr. Ryan  
Mr. McCool  
Mr. Bengelsdorf\*

DISTRIBUTION:

Commissioner  
General Manager  
General Counsel  
Secretary

\*Attendance by Topic (s)

infant daughter, and Lucy Nugent and sone Patrick were present and stayed the whole time. The President stayed longer than I have ever seen him do at any previous reception. It was obvious that he was nostalgic and aware of the impending end of his term. I spoke to Linda about her article in the current McCall's magazine, to which I had contributed, on books read in our childhood, and to Lucy about holding Patrick in my lap during the automobile ride with the President during my visit to the Pedernales Ranch a year ago.

We spoke to Mr. and Mrs. Williams (head of the Administrative Conference) and Mr. and Mrs. Tom Johnson (head of Lyndon Johnson's office in Austin).

Saturday, January 4, 1969 - D. C. Office

Commissioners Johnson and Ramey and I met with Senator Jackson in his office for an hour to discuss the decision to shut down two reactors at Hanford.

Using a chart, I described to Jackson the total rate of plutonium production between now and 1977, on the assumption that the Hanford "C" reactor would be shut down and that two Hanford "K" reactors would be operating sequentially. This chart showed how the requirements for heavy isotopes, for fuel-grade plutonium for the three breeder reactor prototypes, for weapons-grade plutonium and tritium in the base program, and the same in the Alternate "A" Contingency added up to the plutonium production rate. Thus, we could meet our plutonium and plutonium-equivalent requirement even with the two Hanford reactors shut down.

Senator Jackson said it would be very embarrassing to him to shut down two reactors in Hanford in the last few weeks of this Administration, particularly when it was not at all clear that enough plutonium was planned for production under the sort of increased strategic deterrent situation that the Nixon Administration might adopt. Therefore, he would like to see the money, which is \$16 million, put back into the FY 1970 budget. We explained that the budget was already printed, and this was impossible.

Senator Jackson then suggested that we defer the shutdown of the Hanford reactors until the incoming Administration could have the opportunity to review the situation. He would prefer that the President announce this deferral, but I pointed out that it was unlikely that the President would want to do this and that it would be adequate to have the AEC do so.

We also discussed the possibility of shutting down a Savannah River Reactor, but it was pointed out that the Savannah River reactors are devoted almost exclusively to the production of heavy isotopes for the space program, to Cf-252 production, etc., and not much to the production of weapons-grade plutonium.

Senator Jackson confirmed that he had phoned President Johnson on this matter yesterday evening and indicated to the President that he was meeting with me this morning to discuss it. He indicated to the President that he would be embarrassed by the shutdown of the two reactors at Hanford, and that a reevaluation of the proper level of our strategic deterrent might require their continued operation.

I told Jackson of my conversation with the President last night at the reception. I said that, on the basis of our discussion, I would indicate to the President that I think the best solution would be a deferral of the implementing actions for the shutdown of the reactors until the incoming Administration has a chance to review the situation. I indicated that I would suggest to the President that the AEC might announce this deferral at the time the FY 1970

budget went to Congress. I said I would let Jackson know the outcome of my call to the President.

We also discussed the question of the operating contractor for the FFTF. Sam Volpentest of the Tri-City Industrial Council and officials of Douglas United Nuclear (DUN) have talked to Jackson to try to convince him that the operating contractor should be DUN. I urged Jackson to retain an open mind on this and to talk to representatives of Battelle also. He said he is seeing Sherwood Fawcett (President of Battelle) later this morning, and thus he would be hearing their side of the case.

Later, alone with Jackson, we discussed my possibly remaining on as AEC Chairman. He favors this and will discuss it with Mr. Nixon.

At 10:50 a.m. I called the President and told him I was calling to report the results of my meeting with Senator Jackson, as I had promised to do when I talked to him last night. I indicated that Jackson said he would be very embarrassed if the reactors were shut down and the President said he understood that. He said Jackson had gone into this with him in some detail and that I should confine myself to what was the right thing for his Administration to do.

I said that, although Jackson would have preferred putting the \$16 million for the operation of the two reactors back into the FY 1970 budget, I indicated that this was impossible. I said, however, there was a compromise that I would like to suggest, and this was to defer action on the shutdown of the reactors until the Nixon Administration had a chance to review the situation. I said that, under this plan, Jackson would prefer that the President announce the deferral, but the President immediately said he wouldn't want to do this, that he had many such requests and he could not be involved in such announcements. I then indicated that it would probably be satisfactory if the Commission made such an announcement. The President seemed sympathetic to this plan, but also noncommittal. He asked me to send him a memorandum summarizing the issues which he could go over this weekend. I immediately dictated a letter and sent it to the President (copy attached).

I informed Commissioner Johnson, Bob Hollingsworth and John Abbadessa of my action, as well as Senator Jackson. Sam Hughes called from the BOB, after having learned of my talk with the President, and I brought him up to date. Apparently representatives of the BOB will meet with the President this afternoon to decide this matter.

I worked in the office until about 1 p.m. At home I worked on my Rosenfield Lectures that I plan to give at Grinnell College in Iowa on January 29th and 30th.

Allyne Snyder came to stay with us while she is recovering from her broken shoulder.

Sunday, January 5, 1969

David returned for the winter quarter at Davis today. He took TWA Flight No. 67 which left Dulles at 9 a.m.

I went to the Science Service Headquarters to work with the other judges to pick the 40 winners (29 boys and 11 girls) of the 1969 Westinghouse Science Talent Search.

UNITED STATES 910647  
ATOMIC ENERGY COMMISSION  
WASHINGTON, D.C. 20545

OFFICE DIARY Drew GLENN T. SEABORG Chr USAEC, 97014 FOLDER-PAGE
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OFFICE OF THE CHAIRMAN

January 4, 1969

Dear Mr. President:

As you requested in our phone conversation this morning, I am writing to describe my conversation this morning with Senator Henry Jackson. I shall summarize the issues and suggest a possible solution.

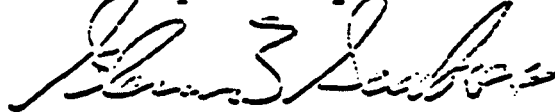
Your FY 1970 budget contemplates the shutdown of two plutonium production reactors, at a total saving of \$16 million. In order to insure saving the entire \$16 million in FY 1970, the Atomic Energy Commission would, in the normal course of events, begin to shut down the reactors as soon as possible, beginning next month.

There is a difference of opinion as to whether these reactors should be shut down. One point of view is that their continued production of plutonium is required to maintain an adequate strategic deterrent. The proper level of strategic deterrent is a question concerning which the Nixon Administration has expressed a strong interest.

A reasonable solution to the problem, in my opinion, would be for the Atomic Energy Commission to defer action on the shutdown of these reactors until the matter can be reviewed by the incoming Administration. If this review were conducted in an expeditious manner, I believe that by very tight scheduling it would still be consistent with shutdown of the reactors in time to save \$16 million in FY 1970, should this be the decision.

Under this plan, the Atomic Energy Commission would announce at the time your budget is sent to Congress that it is deferring action on this item pending such a review by the incoming Administration. Such a course of action is satisfactory to Senator Jackson.

Respectfully,



Glenn T. Seaborg

The President,  
The White House

CONFIRMED TO BE UNCLASSIFIED  
AUTHORITY: DOE-DPC (B7E) (e)  
BY R.O. BOGER DATE 7/11/86

Monday, January 6, 1969 - Germantown

At Information Meeting 863 (notes attached) I described our meeting with Senator Jackson on Saturday, and my subsequent conversation with the President.

I had lunch in the little room next to my office with Howard Brown and Julie Rubin. We discussed improvements in the methods we use to approve the safety rules governing nuclear weapons in the DOD.

In the afternoon I presided over Commission Meeting 2357 (action summary attached) and continued our discussion of the future of AEC's gaseous diffusion plants. We are analyzing all the possible plans preparatory to discussion with the Nixon Administration and the JCAE.

My article, "Uneasy World Gains Power over Destiny" appeared in the Economic Review section of the New York Times today.

Pete left Baltimore at noon today to return to Berkeley for the winter quarter. He is in a mood of lack of self confidence that prevents him from writing his term papers--this, if not overcome, may jeopardize his status as a graduate student in the History Department at Berkeley.

Tuesday, January 7, 1969 - D.C. Office

I had lunch at the Roger Smith Hotel with Al Ghiorso, Bob Main and Cornelius Tobias to discuss their new ideas for rebuilding the HILAC so it can accelerate U ions to 7.5 Mev per nucleon. They now think they can do this with accelerator improvement funds and would like to start in FY 1970, in which case they could complete the work by January 1971. They talked to people in the Division of Research including Paul McDaniel, George Kolstad and Dan Miller in the morning, and in the afternoon to Dr. Tape.

I called Det Bronk and he agreed to serve on a Fund Raising Committee for Science Service.

I attended a reception for NBC overseas correspondents (including Elie Abel and Pauline Frederick) at the Carlton Hotel.

Helen joined me and we went to a farewell reception for British Ambassador and Lady Patrick Dean at the home of British Minister and Mrs. Edward Tomkins at 2406 Kalorama Road.

Helen and I then went on to attend the Women's National Press Club "Salute to the 91st Congress" dinner at the Sheraton Park Hotel as the guest of Deanna Clark.

At our table were Mr. and Mrs. Clark, Senator and Mrs. Richard Byrd, Mr. and Mrs. James Pipkin (Executive Vice President, Texaco), Mr. and Mrs. Hobart Lewis (President, Reader's Digest) and Ambassador to Iceland and Mrs. Karl F Rolvaag. Margaret Kilgore, President of WNPC, presided and the following recently elected members of Congress spoke in a witty fashion: Senators James B. Allen (Alabama), Mike Gravel (Alaska), Theodore Stevens (Alaska), Barry Goldwater (Arizona), Alan Cranston (California), Edward Gurney (Florida), Harold Hughes (Iowa), Robert Dole (Kansas), Charles Mathias (Maryland), Thomas Eagleton (Missouri), William Saxbe (Ohio), Henry Bellman (Oklahoma), Robert Packwood (Oregon), Richard Schweiker (Pennsylvania), and Representatives James Symington (Missouri), Shirley Chisholm (New York), and Wilmer Mizell (North Carolina).

UNITED STATES  
ATOMIC ENERGY COMMISSION  
WASHINGTON, D.C. 20545COPY NO. \_\_\_\_\_  
January 6, 1969INFORMATION MEETING 8639:55 a.m., Monday, January 6, 1969, Room A-458, Germantown Headquarters1. Production Reactor Shutdowns

The Chairman discussed briefly the January 4 Meeting with Senator Jackson and his subsequent conversation with the President. A revised statement for use on January 11, 1969, is approved and a revision in the detailed language of the Fiscal Year 1970 budget submission is requested. The Chairman will call Mr. Hughes, BOB. (OC-PI)

2. Chairman's Report on His Recent Meeting with Messrs. Bush and Shaw, UNC, re Ashland Oil Acquisition of UNC

A staff analysis of pros and cons is requested. (GC-IP)

3. AEC 1283/33 - Notification Actions Relating to FY 1970 Budget

Approved in part. (RM-Congr.)

4. AEC 1130/49 - Proposed Letter to DOD on Test Readiness Program

Approved with a change. (Rubin)

5. AEC 811/216 - Public Announcement of Plowshare Site Selection

Approved with an announcement date of January 13, 1969. (PNE-PI)

6. AEC 478/112 - Official Representation at Opening of AEC Demonstration Center in the Philippines February 15, 1969

Staff representation is requested. (TI)



7. AEC 620/60 - Recovery of Damages from Mining Claims

Approved with a request and to be discussed with Congressman Wayne Aspinall. (GC-RM)

8. AEC 459/56 - Invitees for the Uranium Enrichment Seminar

Staff is to check the possible use of AEC Bethesda facilities and the Joint Committee is to be informed. (AGMP&P-Congr.)

9. Policy Issues re Fiscal Year 1970 Budget

The General Manager reported circulation to the Commissioners this week.

10. Commissioner Johnson's Report on New York Meeting this Week to Discuss the Molten Salt Reactor Concept

11. AEC 1253/49 - Approval of Reprogramming Action for Plutonium Test Facility at Savannah River

Noted with a request. (P)

12. AEC 816/3 - Transfer of U-233 to Australia

Noted with a request. (AGMIA)

13. AEC 979/74 - Visits by French Nationals

Noted. (AGMIA)

14. AEC 568/119 - Soviet Intelligence Activities

Noted. (AGMIA)

15. AEC 973/101 - Proposed Enlargement of IAEA Scientific Advisory Committee

Noted with a request. (AGMIA)

16. AEC 809/130 - Proposed Denial of Export Application to France of Linear Accelerator Parts and Accessories

The staff intention is noted with a request. (AGMIA)

17. AEC 620/62 - Suit by American Novawood Against Atlantic Richfield Company and NUMEC

Noted with a request. (ID-INS)

18. Pending Contractual Matters Report Nos. 289 and 290

Noted. (PAR)

19. Commissioner Ramey's Report on Interdepartmental Discussions re the Israeli Desalting Project

\*\*\*\*\*

20. Executive Session Personnel Item

Approved. (PER)

W. B. McCool  
Secretary

11:55 a.

PRESENT:

COMMISSIONERS:

Chairman Seaborg  
Commissioner Ramey  
Commissioner Tape  
Commissioner Johnson  
Commissioner Costagliola

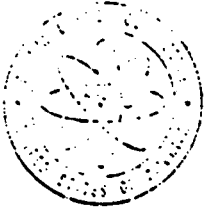
STAFF:

Mr. Hollingsworth  
Mr. Bloch  
Mr. Brown  
Mr. Hennessey  
Mr. Abbadessa  
Mr. Kull  
Mr. Rubin  
Mr. McCool  
Mr. O'Neill\*  
Mr. Harris\*  
Mr. Voigt\*  
Mr. Faulkner\*  
Mr. Kelly\*  
Mr. Gaughran\*  
Dr. English\*  
Mr. Kratzer\*  
Mr. Riley\*  
Mr. Thorne\*

DISTRIBUTION:

Commissioners  
General Manager  
General Counsel  
Secretary

\*Attendance by Topic (s)



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

January 7, 1969

Approved \_\_\_\_\_

REH

Date \_\_\_\_\_

R. E. Hollingsworth, General Manager

ACTION SUMMARY OF MEETING 2357, MONDAY, JANUARY 6, 1969, 3:05 P.M.,  
ROOM A-410, GERMANTOWN, MARYLAND

SECY:MSJ

Commission Business1. AEC 921/2 - Criteria for Use of AEC Seal and AEC Flag

Approved, as revised.

The Commission approved the policy set forth in Appendix "A" to AEC 921/2 establishing criteria governing the use and availability of the AEC seal and AEC flag and requested advice as to the legal requirement for publication of the criteria in the CFR. (GC)

2. AEC 843/57 - Part 26 - Dissemination of and Access to Private Restricted Data and Related Amendments to Parts 25 and 95 (See also Commissioner Johnson's December 5 Memorandum re Comments on AEC 843/67)

Discussed.

The Commission requested discussion of the proposed new Part 26 and related amendments to Parts 25 and 95 with Mr. Harold Green and a representative of the New York City Bar Association prior to further Commission consideration. (GC)

3. AEC 459/55 - Future Ownership and Management of Uranium Enriching Facilities in the United States (See also AEC 459/49, 459/50 and 459/52)

Discussed.

The Commission requested:

- a. inclusion in the outline of the Enrichment Services Seminar to be held March 3-4, 1969 of the self-financed uranium enrichment enterprise model described in AEC 459/55; and
- b. preparation of a spectrum of cases briefly identifying and describing alternatives for future ownership of government uranium enriching facilities and their transitional nature.

CONFIRMED TO BE UNCLASSIFIED  
AUTHORITY: DOE-DPC 62766  
BY E.G. BOGER DATE 7/11/82

OFFICE DIARY	
GLENN T. SEABORG	
Chr USAEC, 1961-72	
FOLDER-PAGE	97020

R. E. Hollingsworth  
Action Summary 2357

-2-

January 7, 1969

4. Executive Session Item

W. B. McCool  
Secretary

cc:  
Chairman Seaborg  
Commissioner Ramey  
Commissioner Tape  
Commissioner Johnson  
Commissioner Costagliola

Wednesday, January 8, 1969 - D. C. Office

I met with Charles Harrington (President of Douglas United Nuclear [DUN]) to hear more on his case for DUN to operate the FFTF. He pointed out that DUN is planning a \$2.5 million addition to their Richland facility and United Nuclear is planning to expand their zirconium tubing facility, but that would be contingent upon receiving the contract to operate the FFTF. If they don't receive the contract and if there are further cutbacks in plutonium production at Hanford, then they probably won't be able to continue their present diversification effort and would have to shut down the Douglas laboratory.

Commissioners Ramey and Johnson and I then met with Sherwood Fawcett (President, Battelle), Fred Albaugh (Director, Pacific Northwest Laboratory [PNL]), and Eugene Astley (Manager, FFTF Project at PNL), to hear their case for the choice of Battelle PNL to operate the FFTF.

I presided at Information Meeting 864 (notes attached) at 9:55 a.m.

I had lunch at the Roger Smith Hotel with Albaugh, Fawcett and Astley.

At 2 p.m. I was interviewed by Mohammed Rauf, Jr. of the Baltimore News American concerning the accomplishments on atomic energy in 1968; the interview will appear in Sunday's paper.

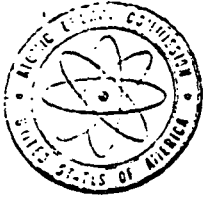
I phoned Phil Handler and invited him to be the banquet speaker at the Science Talent Search Banquet on Monday, March 3rd. He accepted.

From 4:45 p.m. until 6 p.m. Commissioners Ramey and Johnson and I met with Chet Holifield and Ed Bauser in Holifield's office. We discussed whether the AEC should hold a briefing for the public (that is, representatives of industry, utilities, banking, labor, etc.) on the various possible courses of action concerning the future of the gaseous diffusion plant. Holifield was concerned that such a briefing might lead to widespread polarization of competing points of view. After discussing the matter thoroughly, we decided that a better approach would be to send out to the interested public a staff review (together with questions) of the various possibilities, and this would then be followed by smaller meetings with interested groups in which there would be a follow-up of answers to the questions.

We also discussed the time when the AEC authorization hearings might start. Holifield was of the view that he would want to have the Nixon amendments, or at least some notion of what they might be, before he started hearings on the Johnson budget because he wanted to avoid holding meaningless hearings. We told him we would have a number of amendments to suggest to the Nixon budget. It was agreed that the authorization hearings would be delayed until we all have some notion as to the extent and timing of the Nixon amendments to the Johnson budget.

Thursday, January 9, 1969 - D. C. Office

I attended the White House ceremony honoring the Apollo-8 Astronauts. It was held in the East Room at noon. Dr. Thomas O. Paine (Acting NASA Administrator) gave a one-sentence introduction of the President. The President made some short remarks. This was followed by Paine reading the single citation, which was identical for the three astronauts: Air Force Colonel Frank Borman, Navy Captain James A. Lovell, Jr., and Air Force Lieutenant Colonel William A. Anders. Paine then individually asked Anders, Lovell and Borman to come forward, have his family introduced, and be presented by the President with NASA's Distinguished Service Medal. After the President gave the astronauts



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

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NOV 86

COPY NO. 2  
January 8, 1969

INFORMATION MEETING 864

9:55 a.m., Wednesday, January 8, 1969, Chairman's Conference Room, D. C.

1. Letter to Senator Aiken re Public Hearing in the Matter of Vermont-Yankee Nuclear Power Corporation  
  
Approved with changes. (Chm. AS&LBP-Rubin)
2. December 30 Letter from Jose M. Otero, Madrid, re Spanish Uranium Deposits - Request for a Visit of Geologists  
  
An early affirmative response is requested. (RM)
3. AEC 1282/25 - Execution Data for a Portion of the BOWLINE III Events  
  
Approved. (AGMMA)
4. Staff Analysis of Special Panel Report  
  
Requested. (AGMMA)
5. AEC 1283/35 - Budget Related Items for Possible Discussion with the Incoming Administration  
  
Approved for staffing with additions. (OC)

6. Commissioner Johnson's Report on Discussions with Chairman Chet Holifield re Diffusion Plants

A further meeting with Mr. Holifield is to be scheduled. (Helfrich-Congr.)

7. Chairman's Discussion with Mr. Charles Harrington, UNC

8. Background Information for Use in Response to Questions re the Hanford Reactors

Approved with changes. Staff may inform Senator Magnuson and Congresswoman May and the Chairman will call Senator Jackson. (PI-Congr. -Rubin)

9. Mr. Schur's January 7 Memorandum re Proposed Draft Bill by Interior Department to Amend the Federal Water Pollution Control Act

Approved with changes for further review with Commissioners Ramey and Tape and Mr. Price prior to transmittal today. (GC)

W. B. McCool  
Secretary

11:20 a.m.



PRESENT:

COMMISSIONERS:

Chairman Seaborg  
Commissioner Ramey  
Commissioner Tape  
Commissioner Johnson  
Commissioner Costagliola

STAFF:

Mr. Hollingsworth  
Mr. Bloch  
Mr. Brown  
Mr. Hennessey  
Mr. Abbadessa  
Mr. Kull  
Mr. Rubin  
Mr. McCool  
Mr. Wells\*  
Mr. Yore\*  
Gen. Giller\*  
Mr. Baranowski\*  
Mr. Harris\*  
Mr. O'Neill\*  
Mr. Schur\*  
Mr. Price\*  
Dr. Beck\*  
Mr. Henderson\*  
Mr. Shapar\*

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Secretary

\*Attendance by topic (s)

their medals, Anders presented the President with a framed copy of the Space Treaty, which had orbited the moon with them.

Lovell presented to the President what Borman described as "a picture of the ranch," which consisted of a color photograph of the earth taken from the moon. This caused laughter by the President and those present. Colonel Borman, commander of the flight, went to the rostrum and responded briefly for the three astronauts, emphasizing the support that had been given them and the fact that they were only representatives of a large effort. Paine then said that the ceremony was concluded. The President stepped forward and added a few comments about his satisfaction with the accomplishment and introduced Jim Webb as the man most responsible for this accomplishment describing him as "the best administrator in Government."

While I was going through the receiving line after the ceremony the President asked me whether the matter of the reactor shutdown had been settled to Senator Jackson's satisfaction. He recalled that the agreement was that we would slow down the shutdown action until the incoming Administration could review it. I confirmed this, and added that we would announce this plan at the time of his budget submission. He asked whether I had informed Jackson of our course of action, which he referred to as AEC action, and I said I had. I said I phoned Jackson immediately after my talk with him on Saturday, and that I would call Jackson again to be sure he understood it. In the receiving line I met the three astronauts; Anders seemed quite interested in talking with me, mentioning that he was a nuclear engineer. Refreshments were served in the State Dining Room and here I met the Lovell children, the Borman children, Borman's parents, and Paul Haney, who invited me to visit the Houston Space Center.

I had lunch at the Roger Smith Hotel with Jerry Tape. We discussed his impending departure to assume the presidency of Associated Universities, Inc., its timing and its possible effect on my future plans.

At 3:30 p.m. the Commission met with the ACRS in executive session for the purpose of reviewing the relationship between the AEC regulatory staff and the ACRS. The discussion was started with a brief review by Bill Johnson of a possible change from the present relationship in which ACRS considers in detail features of each project instead of ACRS looking at broader aspects of a project and possibly concentrating on problems anticipated more in the future. The need to build a greater stature for the AEC regulatory staff was suggested and the desirability to avoid duplication of work between the two groups and have ACRS provide support for the AEC regulatory staff was tabled for discussion. Jim Ramey added that the regulatory process is still in an evolutionary stage and that it is certainly appropriate to consider any changes in the ACRS role over that originally envisioned and as initially practiced. A further view was expressed that ACRS should not be a de facto regulatory group and should truly be an advisory organization to the Commission. The desirability and actual acceptance of the ACRS letter as a mechanism for leverage in dealing with applicants was questioned.

Following this general introduction of the subject, Stephen Hanauer, as ACRS Chairman, invited comments by individual members. He noted that such comments by individual members would be expressions of individual opinion, as the ACRS as a group had not had the time nor any occasion to consider a unified position on this matter.

Joe Hendrie suggested that the significant stature of the ACRS in comparison with the AEC regulatory staff may have resulted from the total acceptance of the ACRS position in its typical published letter. Joe Palladino added that

publication of the ACRS letter while the AEC regulatory position is incomplete or not published at the same time contributed to the stature of the ACRS. Hanauer indicated that there is a general understanding that AEC staff have been instructed not to disagree in public with the ACRS and generally this lack of disagreement further extended to any ACRS position.

In answer to my question as to whether ACRS was suggesting that the Commission not necessarily follow its recommendations, Joe Hendrie stated there would likely be a few ruffled feathers if we didn't, but that in general an independent treatment of the ACRS position may be desirable and would certainly help achieve the Commission's objective of building up the regulatory staff stature.

A general observation was offered that if the Commission desires the ACRS to assume a different role than is presently practiced, it may have to be restructured and even have different people.

Spence Bush inquired whether the ACRS members should withdraw from detailed participation with the regulatory staff in preparation of guides in specific areas. Jim Ramey suggested this is not intended by the Commission and, in fact, encouraged ACRS participation in areas where broad standards, codes, and guides were being prepared.

Joe Hendrie stated that in his view the regulatory staff is very capable and strong, but the appointment of ACRS members by the Chairman of the AEC and some of the matters previously discussed inevitably result in their senior stature.

Joe Palladino added that the AEC staff completes the detailed review on each case and the ACRS position is a follow-on action supplementing this detailed review. Carroll Zabel indicated that the ACRS in our present arrangement is possibly acting in a management review position over AEC regulatory staff operations that, if changed, might still have to be conducted by the Commission in some manner.

Dave Okrent commented that the AEC regulatory staff is certainly stronger now than five years ago. He added that this strength is not uniform and at their present staffing level expressed concern that they could do the complete job if ACRS concentrated on broader and longer range objectives. He also noted that the regulatory staff, and in some cases DRDT, use the ACRS position by reference to pressure applicants into certain changes and trends. Okrent continued by indicating ACRS could consider completely avoiding any review of a specific project due to lack of time in the interest of expediting the overall regulatory process. There seemed to be some question by the lawyers whether ACRS could take this position and particularly whether this action could be taken without some degree of review to decide which projects could be eliminated from the ACRS schedule with minimum risk. This matter seemed to be one of general semantics for which there had been previous discussion between the regulatory staff and the ACRS.

A brief reference was made by Jim Ramey to the pending change in AEC legislation in which mandatory ACRS review of each case would be eliminated. Jerry Tape commented that it appears some degree of review by ACRS is inherent in any decision they might make to completely eliminate a particular project from their schedule.

I closed the meeting by encouraging the new ACRS Chairman to continue meeting with the Commissioners on an informal basis and further stated that the present discussions appeared to be worthwhile.

About 8:30 p.m. I attended a farewell party for Charlie Winter (Deputy Director, DMA) at the Bethesda Naval Officers Club and I presented him with a Superior Performance Certificate. Ed Giller and Jerry Tape also participated in the ceremony.

Friday, January 10, 1969 - D. C. Office

The National Council on Marine Resources and Engineering Development met this morning in Room 208 of the Executive Office Building. Present were: Vice President Humphrey; Dr. Galler (Smithsonian), Mr. Shapley (NASA), Dr. Frisch (Navy), Mr. Boyd (Transportation), Secretary Rusk, Secretary Udall, Mr. Bartlett (Commerce), Dr. Haworth (NSF), Mr. Gaud (AID), Dr. Baer (OST), Mr. Johnson (Executive Office of the President), Dr. Wenk (Executive Secretary of the Council) and I. Also present were approximately 15 representative from various agencies.

Humphrey opened the meeting by referring to previous Council actions and stressed the important role of the Council in U. S. Marine affairs. He referred to the importance of food from the sea and the interest of other nations in this subject, noting his discussions with officials of Scandinavian countries on his recent trip to Norway. He noted that the meeting was to consider the Council's comments to the President on the report of the Commission on Marine Science, Engineering and Resources and that an ad hoc committee, formed from representatives of the agencies having membership on the Council, had prepared recommendations to the Council as a basis for Council comment to the President. He turned the meeting over to Wenk.

Wenk said the most important recommendation probably is that concerned with organization. The Vice President described the proposed new agency, and the various parts of existing agencies which would be consolidated to form it, the National Oceanic and Atmospheric Agency (NOAA). I inquired as to whether the agency would be referred to as "Noah" and there were other references to arks and the like. Wenk referred to the fact that three members of the ad hoc Committee dissented as to the establishment of a new agency. Upon questioning he stated that these agencies were Transportation, Interior and the Bureau of the Budget. Wenk also mentioned the fact that the Commission dodged the thorny issue of the Maritime Administration, which most Committee members felt should be transferred to the Department of Transportation.

The Vice President said that the proposed organization is the central issue, and inquired as to who were the proponents and the opponents, asking for a frank and open discussion. Secretary Boyd responded by saying he objected to the whole concept. He stated: 1) that he believed the Executive Branch should be moving to a greater concentration of functions rather than to have more proliferations; (2) that the Commission had started to deal with marine research, but had really involved itself with marine affairs across the board; 3) that there should be one agency (DOT) to deal with transportation problems and he was opposed to the U. S. Coast Guard's being removed from DOT into NOAA. Boyd recommended that the Council, OST and BOB study the matter further. I observed that the ad hoc Committee recommended such a further study.

Secretary Udall said he supported the view of Boyd and that he is skeptical of the new agency concept, stating that a mere proliferation of agencies can have a weakening effect. Bartlett agreed with Boyd and Udall, stating that the government needs more centralization rather than diffusion. He noted that ESSA was the product of a reorganization only three years ago and that its loss from Commerce to the new agency would be a blow to the Commerce Department.

Boyd noted that the Navy had been, in effect, left alone and that this fact disturbed him; he suspected that it was based on political factors rather than an objective assessment. Frisch responded that the Commission had considered this matter seriously and at great length, and that the basic reason for the decision was that the Navy's civilian (e.g. marine research) functions were so intertwined with its military responsibility that they could not be separated. He suggested that the ad hoc Committee was somewhat ambivalent on the organization question and that some recommended transfers (e.g. Coast Guard) did tend to carry with them functions that might be inappropriate. He noted that this was the reason for the ad hoc Committee's recommendation for further study.

The Vice President read the three statements recommending the carrying out of an immediate study. He mentioned also the recommendations on priorities and on the Council. He noted the one dissent on the extension of the Council until a new organization is established, stating he thought the Council had served as a very necessary function and should be continued.

Haworth suggested that the word "should" be replaced by "might" in the ad hoc Committee report on "An Immediate Study" so that it would read "of those organizations and functions which might be included in a new marine agency."

Secretary Rusk agreed with Haworth on the suggested change. Rusk also expressed skepticism over whether a single agency could command more fiscal resources, noting that the Navy provided a useful shield for arctic and antarctic research programs.

At this point it appeared that the Council consensus was to support, in general, and with the wording change noted above, the ad hoc Committee's recommendations on: Organization, Priorities and the Council itself.

Rusk emphasized that the proposals of the Commission for a definition of a Continental Shelf and Intermediate Zone with national jurisdiction over them was a very sensitive international issue. He stated that with the importance of the oceans being increasingly recognized (not only for transportation, but for their mineral and food resources) national and international rights associated with them can become a very critical and explosive issue. He stated that he urged the deferring of any stated U. S. position on the continental shelf and regime beyond, pending many further diplomatic negotiations and discussions among nations.

The proceedings were interrupted at this point for the presentation to the Vice President of a gift from the Council together with a citation for his accomplishments as Chairman of the Council. The gift consisted of a collection of ocean flora and fauna mounted on a base with a suitably inscribed plaque. The Vice President made a very polished humorous, witty and moving acceptance speech--extemporaneously, of course.

The Vice President resumed the meeting and directed attention to the question of use and development of the coastal zone and the document prepared by the Council staff containing recommendations on which the Council is being requested to act. After a brief discussion, the Council approved the recommendations and the Vice President adjourned the meeting.

I had lunch in the Commission dining room with Julie Rubin, Justin Bloom, Stan Schneider and Bill Perkins (a new man on loan from Public Information, working with Schneider).

At Information Meeting 865 (notes attached) at 2:40 p.m. Giller and Donnelly briefed us on the huge supplemental (more than \$100 million) that we will have to request from the Nixon Administration for nuclear weapons development; much of this is due to recent changed weapons requirements from DOD.

I called Manson Benedict to tell him that the Commission has voted to confer its citation on him on February 4th. I also told Lombard Squires (in town to meet with the ACRS) that the AEC will confer its citation on him on April 11th.

Saturday, January 11, 1969 - D. C. Office

I worked until one o'clock. Stephen Hanauer (Chairman of the ACRS) came in to discuss briefly the staffing of the ACRS. Zabel and Palladino are unable to continue as members, and Hanauer proposed William E. Cooper of Teledyne Material Research Company and Hibbert M. Hill, a private consultant, as candidates to replace them. I said that the Commission would prefer to select members from a lengthier list and that I would consult with the other Commissioners to determine if they had names to suggest. Hanauer said he found the executive session on Thursday very useful and he agreed with me that we should have such sessions every two or three months. He also said he intends to meet with Commissioners Johnson and Ramey before each of the ACRS meetings.

I took a hike with Suki in Rock Creek Park and worked on my first Rosenfield lecture for Grinnell College on January 29th.

In the evening I attended the 34th Annual Awards Dinner of the Touchdown Club of Washington, D. C. at the Sheraton Park Hotel. I sat at the head table between Daryle LaMonica (quarterback for the Oakland Raiders, chosen as the outstanding player of the year in the AFL) and Ray Nitschke (lineman with the Green Bay Packers, the outstanding player of the year in the NFL). I made the award presentation to Nitschke. I described my attendance at the Ishpeming-Green Bay Packers game in Ishpeming in 1919 as a prelude to my description of Nitschke's record. I talked to and obtained autographs from (for Steve and Eric) Nitschke, LaMonica, Otto Graham, O. J. Simpson, Don Drysdale and Bobby Mitchell. I enjoyed long talks with Nitschke and LaMonica.

Sunday, January 12, 1969

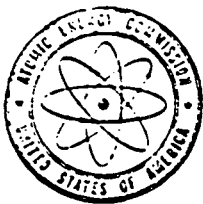
I worked on my second Rosenfield Lecture and then I took a hike in Rock Creek Park with Eric and Suki.

Later I watched the Super Bowl game, played in Miami, on TV. Surprisingly, the New York Jets beat the Baltimore Colts, 16-7.

Monday, January 13, 1969 - Germantown and D. C.

After Information Meeting 866 (notes attached) at 10:10 a.m., a short meeting, I went into town to attend the Chemical Forum Luncheon given by the Manufacturing Chemists Association in the Dolly Madison Room of the Madison Hotel. Senator Charles Mathias (Maryland) spoke about various legislative problems and challenges that lie ahead.

Tom Whitehead from the Nixon headquarters in D. C. called me to set up an appointment to discuss AEC problems. He said he is contacting all the independent agencies to get acquainted with their programs. He is a deputy to Bob Ellsworth, a Nixon assistant. He said Ellsworth would like to meet with two or three people from the AEC this week. I told him I would alert our General Manager, Robert Hollingsworth, to expect a call suggesting a get-together on Wednesday or Thursday. 579



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

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COPY NO. \_\_\_\_\_  
January 10, 1969

INFORMATION MEETING.865

2:40 p.m., Friday, January 10, 1969, Chairman's Conference Room, D. C.

1. Executive Session

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2. News Articles re Schooner Event Leak

Staff is preparing a draft letter to the Joint Committee. (AGM)

3. American Public Power Association January 27 Luncheon, Washington, D. C.

The Chairman noted the invitations to the Commissioners.

4. Commissioners' January 8 Discussion with Chairman Chet Holifield re Diffusion Plants

5. Topics for February 10, 11, and 12 GAC Meeting, Oak Ridge

Commissioner Tape requested consideration of topics for the Commissioners Meeting with the GAC in Oak Ridge and noted Messrs. Brown and Quinn will attend for the diffusion plant and gas centrifuge topics. (SECY)

6. January 6 Letter from Robert Wilson, NAL, re 200 BEV Land Acquisition, a  
AEC 1096/97 - 200 BEV Project: Proposed Visit to Springfield

The response to Mr. Wilson is to discuss AEC plans to see the Governor. Commissioner Tape and probably Commissioner Ramey will plan to visit Springfield with staff. (AGMO)

7. Agenda for the Week of January 13, 1969

Approved. (SECY)

8. Draft Press Release on the AEC Citation Ceremony (See Secretary's  
January 9 Memorandum)

Revisions are requested. The Chairman will telephone the medalists re the February 4 and April 11 ceremony dates. (Rubin-SECY)

9. NTS Events (See General Giller's January 9 Memorandum)

Noted. (AGMMA)

10. AEC 1283/37 - Weapons Budget Problem Areas - FY 1969 and FY 1970

Discussed. (AGMMA)

11. Commissioners' Meeting with General Starbird re Sentinel

12. AEC 1283/36 - High Energy Physics Program Funding - All Agencies

Approved with changes in the letter. (R)

13. AEC 1159/10 - AEC Comments on Proposed Bill re Department of Interior  
Participation in Israeli Prototype Desalting Plant

Approved. (EAGM)

14. Pending Contractual Matters Report No. 291

Noted. (PAR)

15. Commissioner Johnson's Report on the New York Ebasco Meeting re the  
Molten Salt Reactor



- 16. NASA Request for Reimbursement on NRDS Project Delay
- 17. General Manager's Plans for Informal Staff Discussion with DUN re the FTFE
- 18. Fiscal Year 1970 Authorization Bill and Analysis

Approved. (OC)

- 19. Amending Language for the Fiscal Year 1970 Authorization Bill re Peachbottom

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- 20. Executive Session

W. B. McCool  
Secretary

5:00 p.m.

PRESENT:

COMMISSIONERS:

Chairman Seaborg  
Commissioner Tape  
Commissioner Johnson  
Commissioner Costagliola

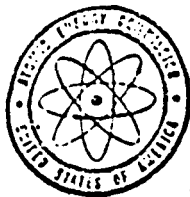
STAFF:

Mr. Hollingsworth  
Mr. Bloch  
Mr. Brown  
Mr. Hennessey  
Mr. Rubin  
Mr. Kull  
Mr Ryan  
Mr. Schoenhaut  
Mr. McCool  
Mr. Erlewine\*  
Gen. Giller\*  
Mr. Roser\*  
Gen. Donnelly\*

DISTRIBUTION:

Commissioners  
General Manager  
General Counsel  
Secretary

\*Attendance by Topic (s)



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

COPY NO. 2  
January 13, 1969

INFORMATION MEETING 866

10:10 a. m. , Monday, January 13, 1969, Room A-458, Germantown Headquarters

1. January 9 Letter from Paul Nitze, DOD, re Proposed Joint DOD/AEC Memorandum to the President Requesting Approval to Transmit Sentinel Information to Canada

In staff review. A reply will be scheduled for consideration on Wednesday, January 15. (AGMMA-SECY)

2. AEC 764/202 - Letter from Assistant Secretary of Defense

A reply is requested. (AGM-EAGM)

Mr. Brown reported the draft letter to Secretary of Defense Designate Melvin Laird re Custody, Interim Safety Rules, PALS, etc., is in preparation. (AGM-SECY)

3. AEC 1230/i6 - Reply to ACNMS December 18 Report

Approved. (Rubin) *Dispatched*

4. AEC 226/438 - Procedure for Reviewing IAEA NPT Model Safeguards Agreement

Approved. (AGMIA)

5. Mr. Shaw's January 7 Memorandum re OST Report "Considerations Affecting Steam Power Plant Site Selection"

Noted. (RDT)

6. FRC Guidelines re Radon Standards for Uranium Miners  
Commissioner Tape commented the President has signed the FRC Guidelines for early publication in the Federal Register.
7. AEC 1288/1 - Supplement to the Johnson Administration History  
Approved with revisions and subject to Commissioner Ramey's further comments. (SECY-Ryan-Rubin)
8. AEC 127/27 - Acquisition of Additional Land for Sandia Livermore Laboratory  
Approved subject to a check of the costs for the Corps of Engineers. (AGMMA)
9. General Manager's Report on Schedule for Submission of President Johnson Fiscal Year 1970 Budget Estimates
10. Briefing of Joint Committee by Dr. Norman Anderson, Oak Ridge National Laboratory, 10:00 a. m., January 15
11. Appointment of Dr. Frederick Tesche, Deputy Director, Division of Military Application  
Confirmed. (PER)
12. Establishment of Department of Interior Radon Standards for Uranium Miners  
To be checked. (AGMO)
13. Commissioner Ramey's Report on His Visit to Oak Ridge, January 10 with Chairman Chet Holifield, JCAE
14. Commissioner Costagliola's January 15 Visit to Mound Laboratory

15. Commissioner Tape's Report on His January 10 Discussions with UK Representatives

16. Cascade Improvement Program

In staff review for discussion on Wednesday, January 15. (EAGM)

W. B. McCool  
Secretary

10:55 a.m.

PRESENT:

COMMISSIONERS:

Chairman Seaborg  
Commissioner Ramey  
Commissioner Tape  
Commissioner Johnson  
Commissioner Costagliola

STAFF:

Mr. Hollingsworth  
Mr. Bloch  
Mr. Brown  
Mr. Hennessey  
Mr. Rubin  
Mr. Kull  
Mr. McCool  
Mr. Kratzer\*  
Gen. Crowson\*  
Mr. Shaw\*  
Mr. Roser\*  
Mr. Fremling\*  
Mr. Swindle\*  
Mr. Hewlett\*

DISTRIBUTION:

Commissioners  
General Manager  
General Counsel  
Secretary

\*Attendance by Topic (s)

I called Senator Jackson, who was in Seattle, to tell him that we are all set to announce tomorrow the deferral of the Hanford reactor shutdowns to give the incoming administration a chance to review the decision. I told him I had discussed the matter again with President Johnson last Thursday and he wanted to be sure he (Jackson) knew about the plan. Jackson said that he understood. Jackson said he had talked to Bryce Harlow, an Assistant to Mr. Nixon whom he has known for 30 years, about me, and he got a generally favorable response. Jackson said he will follow up later when Nixon gets to Washington. Jackson said that Harlow is "a pretty good guy, and pretty sensible" and Jackson expressed to him very candidly that it would be in the best interests of the Nixon Administration not to mix partisan politics with a person of my stature--being a Nobel Laureate, etc.

At 6:30 p.m. I went to the annual reception of members of Congress and officials of the Executive Branch hosted by the American Mining Congress at the Statler-Hilton Hotel.

During the day I called Norman Hilberry and told him he has been selected to receive the AEC Citation.

Tuesday, January 14, 1969 - D. C. Office

I met with Hollingsworth, Bloch and Brown to discuss items to be discussed in their meeting with Robert Ellsworth, Daniel Hofgren and Thomas Whitehead this afternoon. They will identify the gaseous diffusion plant transfer, high yield testing, the shutdown of production reactors, reactor thermal pollution, Plowshare funding, and other problems, including the potentially delicate relationship of the incoming administration to the Joint Committee on Atomic Energy.

I had lunch in the Commission dining room with Julie Rubin, Justin Bloom and Doris Knief; we discussed Chairman's Office operating matters.

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

I sent a letter to the Nobel Committee for Chemistry nominating Henry Eyring for the 1969 Nobel Prize.

Helen and I went with John and Elizabeth Graham, our sponsors, along with Jim and Patsy Webb, to a reception at the Chevy Chase Club. We met the Board of Governors as part of the procedure for our acceptance to full (i.e. resident) membership in the Club.

Wednesday, January 15, 1969 - D. C. Office

Bob Hollingsworth called Bill Webster to suggest that he call Bob Ellsworth regarding my staying on as Chairman. Webster called and made this recommendation; he learned from Ellsworth that there is no immediate plan to replace me.

I presided over Information Meeting 867 at 9:55 a.m. and Regulatory Information Meeting 326 at 11:20 a.m. (notes attached).

I had lunch in the Commission dining room with Rubin, Bloom, Schneider and Perkins.

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COMMISSION

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8 Biweekly Reports

The President  
The White House

January 14, 1969

Dear Mr. President:

This is my last biweekly report to you during your term of office. I am deeply grateful for the confidence and support which you have so generously extended during the past five years. In nuclear energy matters, as in so many other governmental areas, your Administration has made enormous accomplishments for the benefit of the United States and for the people of the world.

Details of my report follow:

1. In response to the Australian Atomic Energy Commission's informal expression of interest in the possibility of excavating a harbor in Australia by using nuclear explosives, we have suggested to the Australian AEC that the matter should be pursued initially through a technical feasibility study in which the U.S. would participate and that the international aspects of the proposed project should be dealt with through State Department channels.
2. A tour of the Nevada Test Site was conducted on January 7 for newsmen, officials of the state of Nevada, Las Vegas area local officials, members of the Howard Hughes organization, and assistants to the U.S. Senators from Nevada. The tour, which followed a short briefing on the public interest aspects of the recent BENEHAM test, included visits to the sites of BENHAM and other previous nuclear tests.
3. The U.S. will supply Japan's second nuclear power plant, the largest ever exported from the U.S. (about 775 megawatts). GE will supply the reactor, and AEC and Allied Chemical Company will provide the enriched uranium fuel. The plant will be financed in part by a \$69 million loan by the Export-Import Bank.
4. A summary of commercial nuclear power plant activities in the U.S. in 1968 indicates that orders declined to 61 percent of the net capacity ordered in 1967. The number of reactors ordered fell from 31 in 1967 to 17 in 1968. The average capacity of the reactors ordered climbed to 915 megawatts in 1968, an increase of 100 megawatts over last year. The decline in orders placed is attributed largely to the historically cyclical nature of power plant construction in the United States.

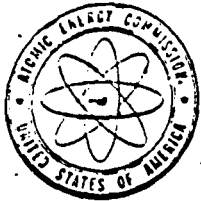
5. The first nuclear power plant in Argentina will be built by a West German company. The Bonn Government has granted Argentina a \$25 million credit to help finance the \$70 million plant. The AEC will sell Argentina the heavy water for the reactor.
6. Greece recently stated its intent to acquire a nuclear power plant during the next four years. In 1968 the Greek Government heard presentations on nuclear technology by potential suppliers from the U.S., United Kingdom, Germany, and Italy.
7. The Soviet Government announced that it recently began to operate an experimental fast breeder reactor.
8. The AEC, the Department of Interior, and the El Paso Natural Gas Company have agreed to study a proposed experiment using nuclear explosives to stimulate the release of natural gas in the Pinedale, Wyoming, area. The study, which will define the bounds of the proposed experiment, will be completed in 1970.
9. Four possible geographical areas have been identified for the proposed Gondola Project, an experiment using nuclear explosives for large scale excavations. Preliminary studies indicate that two areas in Carter County, Montana, one in Butte County, South Dakota, and one on the Humboldt-Pershing County line in Nevada may have the geological characteristics required for this experiment. The results of Gondola would be relevant to the study of a possible sea-level canal in Central America being conducted by the Atlantic-Pacific Interoceanic Canal Study Commission.
10. France will participate in Euratom's research program during 1969 but not in the technology program, which the Community is trying to reshape.
11. The European project to build a 300 BEV accelerator now has 85 percent of the required financial support. France, Germany, Italy, Belgium, and Austria plan to participate in this project, which is being developed by the European Organization for Nuclear Research (CERN).
12. The U.S. firm, Western Nuclear, Inc., has received an exclusive concession to explore for uranium over a 445,000 acre tract in Somali.
13. The Republic of Korea expressed its appreciation for our Atoms-In-Action Demonstration Center that recently closed in Seoul by presenting a scroll letter to me from the ROK Ministry of Science and Technology.

**DOE ARCHIVES**

Respectfully,

Glenn T. Seaborg

cc: Mr. Bromley Smith, Executive Secretary  
National Security Council



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

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COPY NO. 2  
January 15, 1969

INFORMATION MEETING 867

9:55 a.m., Wednesday, January 15, 1969, Chairman's Conference Room, D. C.

1. January 14 Staff Briefing for President-Elect Nixon Representatives  
(Messrs. Ellsworth and Whitehead)

The Chairman said Mr. Whitehead had on Monday, January 13 requested a staff briefing and that Messrs. Hollingsworth, Bloch, and Brown had met Messrs. Whitehead and Ellsworth for that purpose yesterday afternoon.

2. January 11 Letter from Deputy Secretary of Defense Nitze re Cooperation with the U.K.

The Chairman noted receipt of Department of Defense concurrence and his signature on the joint determination for transmittal to the President.

(Rubin) *Dispatched*

3. Department of State January 15 Draft Letter to Chairman Chet Holifield re Nuclear Fuel for the Italian Ship Enrico Fermi

Approved for discussion with the Department of State and transmittal to the JCAE this week. (Rosen)

4. AEC 1283/38 - FY 1970 Funding for CIP

Noted. (OC-P)



5. AEC 781/131 - Proposed Statutory Determination - U. S. Atomic Information to Canada

Approved. (AGMMA-Rubin) *Dispatched*

6. AEC 374/199 - Proposed Letter to John Foster, DOD, re Feasibility of ADM

Approved with a request. (AGMMA-Ryan) *Dispatched*

7. AEC 901/406 - Proposed Participation of Soviet Bloc Nationals in Second Nuclear Isospin Conference, Asilomar, California

Approved. Commissioner Ramey suggested the visit be followed carefully. (AGMIA)

8. Mr. Kratzer's January 14 Memorandum re ORNL Middle East Energy Study

Approved with changes. (AGMIA)

9. Commissioner Ramey's Oral Report on the Israeli Desalting Project

10. AEC 267/102 - Comments on GAO Study of Indirect Cost of Research Grants

Approved. (Rubin)

11. AEC 324/36 - Argonne Universities Association Review Committee Reports

Approved with changes. (R)

12. Mr. Kelly's January 13 Memorandum re Support of the Canal Study Commission's Nuclear Excavation Program

Revisions are requested. (PNE)

13. Arrangements for January 24 Distinguished Service Award Ceremony and Presentation of Special Certificate

Approved. (SECY)

14. Arrangements for February 4 AEC Citation Ceremony

Approved. (SECY)

15. AEC 107/26 - Civil Monetary Penalties for Licensing Requirements Violations

Approved. (GC-Rubin) *Dispatched*

16. Proposed Letter to J. F. C. Hyde, Jr., BOB, re Federal Water Pollution Control Act

Approved with changes. (GC-Rubin) *Dispatched*

W. B. McCool  
Secretary

11:20 a. m.

PRESENT:

COMMISSIONERS:

Chairman Seaborg  
Commissioner Ramey  
Commissioner Tape

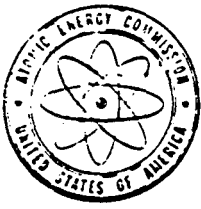
STAFF:

Mr. Bloch  
Mr. Brown  
Mr. Hennessey  
Mr. Abbadessa  
Mr. Kull  
Mr. Rubin  
Mr. O'Donnell  
Mr. McCool  
Mr. Baranowski\*  
Gen. Giller\*  
Mr. Kratzer\*  
Dr. McDaniel\*  
Mr. DeRenzis\*  
Mr. Kelly\*  
Mr. Price\*  
Dr. Beck\*  
Mr. Schur\*  
Mr. Yore\*

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General Manager  
General Counsel  
Secretary

\*Attendance by Topic (s)



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

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NOV 86

January 15, 1969

REGULATORY INFORMATION MEETING 326

11:20 a.m., Wednesday, January 15, 1969, Chairman's Conference Room, D. C.

1. AEC 107/26 - Civil Monetary Penalties for Licensing Requirements Violations

Approved. (GC-Rubin) *Dispatched*

2. Proposed Letter to J. F. C. Hyde, Jr., BOB, re Federal Water Pollution Control Act

Approved with changes. (GC-Rubin) *In for signature*

\*\*\*\*\*

3. Mr. Price's January 13 Memorandum re Possibility of Complete Hold Up of Liquid Effluents from PWR's and BWR's

Staff will initiate informal discussion with industry and report back to the Commission. (ADRA)

4. Staff Discussions with ASME Code Committees

W. B. McCool  
Secretary

11:40 a.m.

Herman Pollack called to encourage me if my schedule and energy would permit, to attend the UNESCO Mendeleev celebration in Paris in March, and if I could not, to suggest a substitute. I told him I probably would not be able to attend and would think about another name. He said the question has come up with respect to what thoughts to pass on to Eklund and what American will be sitting on his advisory council. He said his main concern is to have an adequate and competent representative. If it is Rabi, he will be pleased; if not, he hopes it will be someone of comparable stature. He said if a change has to be made the only basis for buying time would be that the new Administration is not prepared to focus on it right now. I said I agreed with this approach and I was sorry there was a problem at all. I said I have the highest regard for Rabi but there is a violent reaction to him on the Hill. He said he would like to talk to me about this the next time we meet which could be at the Medal of Science ceremony on Friday.

I attended a meeting at Science Service Headquarters of my Fund Raising Committee--Det Bronk, Fred Seitz, Leonard Carmichael and Wallace Brode. We outlined plans whereby each of us will contact a number of foundations to seek grants.

I wrote a letter to the Nobel Committee for Chemistry supporting Bill Libby's nomination of Saul Winstein for the 1969 Nobel Prize.

Thursday, January 16, 1969 - D. C. Office

I called Herm Pollack and recommended Burris Cunningham as a possible U. S. representative to the forthcoming Mendeleev celebration in Paris. He asked if I thought I should rule myself out at this point. I said I have to determine my schedule on the basis of priorities but if a clamor begins at a high level I might have to change my mind. He said he would wait as long as possible and then submit Cunningham's name.

Julie Rubin and I had lunch at the Roger Smith Hotel.

At 2:35 p.m. Commissioner Johnson and I met with Dr. Theos Thompson (MIT) who had come in at my request to explore some of his remarks at the recent meeting in New York about the molten salt reactor. He gave us a summary of his comments at this meeting. Johnson stated that the Commission was concerned about placing all of its eggs in one basket with the LMFBR program and was seeking advice on the allocation of its funds in this area. A \$120 million pot was alluded to.

Thompson expressed some reluctance about commenting on this subject in light of the MIT Nuclear Engineering Department's being in serious financial difficulties and the possible jeopardy of a pending project with DRDT involving blanket fuel for the LMFBR program.

Johnson continued with his earlier theme that concentration by the Commission on a project resulted in a follow-the-leader situation with the industry. He added that the present competition was between coal and nuclear; eventually the breeder plants would have to compete economically as well as be safe which made the present decision on which way to go extremely important.

Thompson stated his paper was an attempt to present a balanced view and as of this time it looked like a very good horse race as to which is the best project between the LMFBR, the high temperature gas-cooled and the molten salt reactors. He noted at this point that there is a certain concern among some of his colleagues, such as Manson Benedict, about the molten salt reactor due to the inevitability of having to deal with leaks in the system. Both Johnson 593

Thompson agreed that remote handling techniques make working with leaks in a highly radioactive process system feasible.

I indicated that my major concern related to the safety aspects of fast reactors. Thompson reviewed the problem of sodium void coefficients in large reactors and stated there has not been any revolutionary change or solution to the problems identified to date. He expressed concern over the move toward a right circular cylinder core design that is dictated to achieve the desirable breeding ratio which in turn is related to assuring the reactor is economically competitive. The safer flat pancake or spoiled core design has gradually been abandoned by every major project abroad and recently by the last hold out (Karl Cohen at GE) because of its reduced breeding ratio and effect on economics.

Thompson expressed concern that all reactor designers, including the French, U.K., Germans and the U.S., are using 50-60 dollars/second as the reactivity increase in a fast reactor accident. This figure has evolved from judgments involving the credibility of accidents and anything greater is discounted in the safety analysis. This point of reference may not be realistic for the thousand megawatt size plants being considered and in turn that are probably required for economically competitive designs.

In answer to my question Thompson indicated a low order explosion could result from a major incident with a fast reactor and agreed with my statement that this could be equivalent to an explosion in the one KT range.

The problem identified by Thompson was explained as one involving reactors larger than about 300 MW's as it is in that general size that the sodium void coefficient is definitely positive. Thompson also added that the Doppler effect is positive in fast reactors as the reactor is cooled but the results from vaporization of the fuel require further study. A gratuitous comment was offered that the SEFOR reactor will not provide the answers to the Doppler problem in large reactors.

Thompson indicated his concerns are not based on firm data, and it will be another two years before the studies he has under way will provide the desired results. Johnson asked whether the Commission should ask the ACRS to look into this subject and this general approach was supported by Thompson.

Thompson closed the discussion by expressing a view that the LMFBR program should be fully supported to resolve these problems and in our overall national interest we should strongly seek additional funds to also carry along the HTGR and molten salt programs. He again expressed concern that his frank views expressed in these discussions not be used in any way that might result in unfavorable consideration of MIT projects by DRDT.

Bloom and I finished an article "Synthetic Elements, IV" and mailed it to the Scientific American.

The President sent a memo approving underground tests to be conducted in the third quarter FY 1964 test series.

Helen and I attended a reception in honor of Dr. and Mrs. Donald Hornig and Dr. and Mrs. Ivan Bennett given by Dr and Mrs. Fred Seitz at the National Academy of Sciences.

Friday, January 17, 1969 - D. C. Office

I presided at Information Meeting 868 at 10 a.m. (notes attached).

At noon I went to the White House to attend the National Medal of Science ceremony which was held in the East Room. President Johnson presented medals, in turn, to H. Albert Barker, Bernard B. Brodie, Detlev W. Bronk Jay L. Lush, B. Frederic Skinner, J. Presper Eckert, Nathan M. Newmark, Jerzy Neyman, Paul D. Bartlett, Herbert Friedman, Lars Onsager, and Eugene P. Wigner. This being his last ceremony of this type, the President was in a mellow and nostalgic mood. He mentioned three special awards--to his grandson Lyn, Mrs. Johnson and Vice President Humphrey. He mentioned me and Dr. Haworth sitting next to me, and at the end of the ceremony he asked us to go over and congratulate the medalists. Following the ceremony we went to the State Dining Room for refreshments. I walked in with Mrs. Johnson and we reminisced about the many occasions on which we met, including my visits to the Ranch.

We then proceeded to the State Department where a luncheon was held for the medalists in the Benjamin Franklin Room. Lee DuBridge and Phil Handler rode in my car. Don Hornig and the Vice President gave short talks and Det Bronk responded on behalf of the medalists. The Vice President was also reminiscent and nostalgic as he mentioned his many relationships with scientists. I was at a table with the Hausrath family and Mrs. Lush.

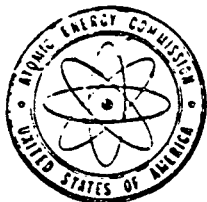
I sent a letter to Illinois Representative Sidney Yates, in response to his request for an explanation of the AEC's role in deployment of the ABM, explaining our role in insuring the safety of nuclear weapons, but admitting they could be deployed by DOD without AEC concurrence.

With Jerry Tape present I called Don Hornig, asking him to delay issuance of the Pitzer Panel report until the AEC has completed its study of the effects of testing high yield weapons. He agreed and will send a memo to Lee DuBridge advising him of this. Hornig said it had been great working with me, and I replied that I considered it a very fine relationship that had helped me immensely in carrying out my responsibilities.

At 4 p.m. I met with Elvis J. Stahr (President) and Charles H. Callison (Executive Vice President) of the National Audubon Society. Dr. Stahr indicated he is in the process of moving to Florida and wanted to be educated in the thermal pollution aspects that might be related to nuclear power plants. His interests apparently stem from the Florida Audubon Society and the Tropical Audubon Society having essentially declared war on Florida Power and Light in connection with their Turkey Point plant. Stahr asked me if the AEC had any authority in the thermal pollution area. I responded by first commenting that we preferred to talk in terms of thermal effects rather than thermal pollution, since in some cases there may be benefits from the warm water.

In answer to the specific question, I indicated that we do not presently have authority in the thermal effects area, but it is quite likely authority will soon be obtained from pending legislation. A brief reference was made to the Administration Bill and the Muskie Bill with some general comments about the differences between the two.

Stahr mildly suggested that the AEC could probably influence decisions affecting thermal effects in its licensing process. Callison then mentioned some of the possible problems at Turkey Point but did not seem to be very well informed about the nature of the problems. I stated that the AEC is certainly aware of public interest in this area and has stretched its authority to the limit by



UNITED STATES  
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COPY NO. --- 2  
January 17, 1969

INFORMATION MEETING 868

10:00 a.m., Friday, January 17, 1969, Chairman's Conference Room, D. C.

1. Members for the Advisory Committee on Reactor Safeguards

Discussed. (DR-SECY)

2. ACRS Request to Conduct Xenon Oscillation Tests at Savannah River Plant

Staff will discuss with the Commission next week. (ADRA-SECY)

3. Mr. Price's January 16 Memorandum re Safety Review of United Kingdom (U.K) AGR Reactor Design

Staff may proceed. (DDR)

4. Commissioner Johnson's Report re Discussion with Westinghouse on Technical Appraisal of Italian Reactors

5. Commissioner Johnson's Report re Discussion with Westinghouse on Puerto Rico Nuclear Plant

6. Mr. O'Neill's January 16 Memorandum re Forthcoming Hearing on Amendments to Federal Water Pollution Control Act

Commissioner Ramey will testify. (GC - Congr.)

7. Mr. Wells' January 16 Memorandum re Service of Mr. Warren E. Nyer on the Atomic Safety and Licensing Board Panel

Approved. (Chm. AS&LBP)

8. AEC 1083/133 - Proposed Reply to Japan Atomic Industrial Forum Invitation  
The Commissioners requested staff representation. (AGMIA)
9. AEC 610/151 - Gas Centrifuge: Italian Inquiries on Quadripartite Classification Understanding  
Approved. (AGMIA)
10. Mr. Kratzer's January 10 Memorandum re Australian Harbor Project  
Noted. (AGMIA)
11. Department of State Memoranda of Instructions to Ambassador Cleveland from Secretary Rusk  
Available in the Chairman's Office for the Commissioners' reading. (Rubin)
12. Volume II of AEC History  
Staff may execute the contract for publication. Mr. Bauser, JCAE, is to be informed. (DC-Congr.)
13. Emergency Capability WALLEYE Warhead  
Noted.
14. Agenda for the Week of January 20, 1969  
Approved. (SECY)
15. Topics for February 10, 11, and 12 GAC Meeting, Oak Ridge (See December 11 Preliminary GAC Agenda)  
To be rescheduled. (SECY)
16. NTS Events (See General Giller's January 16 Memorandum)  
Noted. (AGMMA)
17. AEC 1096/98 - 200 BEV Correspondence  
Approved with changes. (AGMO-Rubin)



18. AEC 1253/50 - CY 1969 Special Analytic Studies

To be rescheduled. (SECY)

19. SAS 67-4 Fast Breeder Milestones

The Chairman commented on Mr. Jack Carlson's, Director, Program Evaluation Staff, BOB, complimentary remarks to him re the study.

20. November 19 Briefing by AEC Staff for the President's Science Advisory Committee on General Strategy and Programs for Civilian Power Reactor Development

The Chairman commented that Dr. F. H. Westheimer, President's Science Advisory Committee, told him the AEC briefing on nuclear power was the best he had ever heard.

21. AEC Briefings for the New Administration

Mr. Hollingsworth reported these in preparation.

22. AEC 11/45 - Fellowship and Traineeship Awards to Graduates of Military Academies

To be rescheduled. (SECY)

23. General Manager's Letter to Assistant Secretary of Defense Paul C. Warnke re Demonstrative Use of Nuclear Weapons

Approved. (AGM)

24. AEC 671/28 - Management Discussions with Principal Contractors at NRTS

Approved. (RDT)

25. AEC 1292/1 - Power and Desalting Contract with Puerto Rico

Approved subject to Commissioner Johnson's Review.  
(RDT-Helfrich-Ryan-SECY)

26. AEC 1282/27 - Execution Data for a Portion of BOWLINE III Events

Approved. (AGMMA)

27. General Giller's January 16 Memorandum re ABM Site Selection Procedure

The letter to Congressman Yates is to be revised for clearance with the Commissioners and signature today. (AGMMA-Rubin-SECY)

*Dispatched*

23. January 14 Letter from Gulf General Atomics re Isotope Separation Concept

To be circulated. (Rubin)

W. B. McCool  
Secretary

11:35 a.m.

PRESENT:

COMMISSIONERS:

Chairman Seaborg  
Commissioner Ramey  
Commissioner Tape  
Commissioner Johnson  
Commissioner Costagliola

STAFF:

Mr. Hollingsworth  
Mr. Bloch  
Mr. Brown  
Mr. Hennessey  
Mr. Rubin  
Mr. Kull  
Mr. McCool  
Mr. Price\*  
Mr. Beck\*  
Mr. Wells\*  
Mr. Yore\*  
Mr. Quinn\*  
Mr. Kratzer\*  
Mr. O'Neill\*  
Mr. Eriewine\*  
Mr. LeGassie\*  
Mr. English\*  
Mr. Poor\*  
Mr. Williams\*  
Mr. Giambusso\*  
Gen. Giller\*  
Mr. Facer\*  
Mr. Hedrick\*  
Mr. Pierce\*

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\*Attendance by topic (s)

arranging for contracts, including possibly one at the University of Miami, to study the thermal effects subject.

I wrote to recently-elected Illinois Governor Richard B. Ogilvie asking him to take decisive action to acquire the 6800 acres of land needed for the 200 BeV Accelerator.

Saturday, January 18, 1969 - D. C. Office

Dianne accompanied me to the office, where I worked until 12:30 p.m. Then we went to the Hot Shoppes on H Street for lunch.

In the afternoon Steve, Suki and I took a hike in Rock Creek Park.

I edited the transcript of my interviews with Dick Hewlett for the Johnson Library.

Sunday, January 19, 1969

Eric, Suki and I took a hike in Rock Creek Park.

I worked on my talk to be given at Indiana State University on April 16th and on my article for the National Catholic Reporter.

I watched the AFL and NFL All Star football games on TV.

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