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JOURNAL OF

GLENN T. SEABORG

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

July 1, 1962 - December 31, 1962

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c.1

Lawrence Berkeley Laboratory
University of California

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PUB-625

JOURNAL OF GLENN T. SEABORG

Chairman of the U.S. Atomic Energy Commission

1961 - 1971

VOLUME 4

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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.

Sunday, July 1, 1962 - Johnston Island - San Francisco

General Salet (who is in charge of Johnston Island), Starbird, Ogle and others showed us the facilities on Johnston Island (approximately one mile by one-quarter mile). We saw the launching facilities (for THOR missile and numerous diagnostic rockets) and complicated diagnostic facilities operated by LASL, Sandia, LRL, the Air Force, Stanford Research Institute, etc. I saw Peter Stevenson of Livermore LRL.

After lunch at Salet's cottage we flew to Kauai Island (the westernmost Hawaiian Island) in a MATS (DC 6 plane). We left at 2 p.m. and arrived at 5 p.m. I worked on my book enroute. At Kauai Island we saw diagnostic equipment and rocket launching facilities (for diagnostics) applicable to Johnston Island high altitude tests, under J. J. Miller (Sandia) and LASL and LRL representatives. (I saw Chuck Gilbert and others from LRL.) We then flew to Hickam Field, Oahu.

Haworth, Bundy, Fritsch, Ink and I had dinner at the Officers Club and then flew to San Francisco on United flight no. 84, leaving at 11:30 p.m. and arriving at 7:15 a.m. (July 2nd).

Monday, July 2, 1962 - San Francisco - Washington

Haworth, Bundy, Fritsch, Ink and I flew to Baltimore on TWA flight no. 64, leaving at 9:15 a.m. and arriving at 4:40 p.m. I talked to Bundy much of the way on ways of insuring readiness capability for atmospheric testing in the event of an atmospheric testing ban. We agree that such capability will enhance the prospects of such a test ban. We also discussed where to do this and agreed to make a study of possible sites and also to initiate negotiations with the British to acquire Christmas Island. We discussed the value of the URRACA high altitude test which is in danger of being omitted due to postponements caused by the failures of BLUE GILL and STARFISH.

The Sheldons left as our house guests on Friday, June 29th, during my absence.

Tuesday, July 3, 1962 - D.C.

At 9:40 a.m. I presided over Information Meeting 173 (notes attached). We discussed Congressman Jensen's June 28th letter (copy attached) relative to conversion of NPR, and the WPPSS proposal. Difficulties have developed with respect to clearing the NS Savannah (now undergoing sea trials) for entry into ports. The ACRS insists that auxiliary power be installed for use in case of an accident involving the reactor, but the Maritime Administrator insists that the Maritime Administration would abandon its use if this is done. The Commission will meet with the ACRS and Maritime Administrator Donald Alexander on Thursday or Friday to settle this. Also, the WPPSS matter is coming to a head. A meeting with Udall, Luce, Swidler, Holifield and others is set for Thursday.

I sent word to Starbird not to rush preparations for STARFISH (repeat) and not to fire before absolutely ready--this date will not determine whether URRACA is fired. The announcement of SEDAN, a cratering shot scheduled for July 6th, is due tomorrow.

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NOV 86

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

COPY NO. 13

July 3, 1962

INFORMATION MEETING 173

9:40 a.m., Tuesday, July 3, 1962 - Chairman's Office, D. C.

1. NS SAVANNAH.

The Commission discussed the ACRS viewpoint, as reported by Messrs. Price and Beck, that the ACRS felt strongly that additional auxiliary power should be added to the NS SAVANNAH and that the filtering system should be improved and a means devised for assuring efficient filter operation. The Commission will meet with the ACRS at 2:30 p.m., Thursday, July 5 to discuss the matter.

The Commission requested a summary of key correspondence regarding the AEC's relations with the ACRS relative to the port problem. (Price)

The Maritime Administrator should be invited to attend the Thursday meeting at 3:30. (GM)

The Commission also requested development of an appropriate list of candidates for ACRS membership. (Price)

2. Elk River Reactor.

The Chairman referred to the ACRS letter of June 29 reporting the Committee's views that the life of the Elk River pressure vessel should be limited as indicated in the ACRS letter of May 26, 1962. Mr. Staebler reported that the RCPA was aware of the contents of the letter and was still prepared to proceed subject to developments during the public hearings. The Commission discussed the desirability of taking steps immediately to replace the present pressure vessel, or operating the reactor for five years and then replacing the pressure vessel. It was agreed that the staff should proceed on the basis that the reactor would be operated for five years with the present pressure vessel. A news release should be prepared for issuance when the ACRS letter of June 29 is released to the public. (Pittman)

3. WPPSS Proposal.

The Chairman reported that Mr. Luce has written to Mr. Swidler presenting his interpretation for the pricing of steam and that Mr. Swidler has been given a draft letter to send to AEC. The General Manager said a GAO opinion was expected on July 5.

4. Announcements for Test Events.

The General Manager reviewed the proposed schedules for announcement of tests of SMALLBOY, SEDAN and LITTLE FELLOW. He also read a proposed release in the event the high altitude test failed due to warhead malfunction.

5. General Advisory Committee Appointments.

The Chairman requested review of a possible conflict of interest. (GM)

6. Discussions re Release of "Formerly Restricted Data".

✓ 7. Letter from Congressman Jensen.

Congressman Jensen's letter of June 28, relative to conversion of NPR and NTPSS proposal, was referred to the General Manager for appropriate action.

8. HR 12305, Introduced by Congressman Hosmer.

Commissioner Wilson advised that the proposed bill does not affect the Commission's right to contract for special nuclear material at other than guaranteed prices.

9. Meeting with Representatives of Princeton University.

The meeting will be set for 2:30 p.m., Friday, July 6. (Henderson)

10. General Luedecke reported on arrangements to limit radiation exposure in connection with the procuring of test data at NTS.

11. Zirconium Tubes in Hanford K Reactor.

General Luedecke advised a letter was being sent to the JCAE relative to replacing about 80 percent of the aluminum tubes in the K reactor with zirconium tubes, at a cost of approximately $7.5-$8 million.

12. Commissioner Wilson's Visit to Hanford.

Commissioner Wilson advised that he was taking Sir Roger Makins and Air Chief Marshal Sir Claude Pelly to Hanford and requested a review of the possibility of showing them the Hanford K reactors.

PRESENT

Dr. Seaborg
Dr. Wilson
Dr. Haworth
Gen. Luedecke
Mr. H. Price
Dr. Beck
Mr. Staebler
Mr. Henderson
Mr. Ansmose

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Assistant Secretary

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NOV 86

Congress of the United States
House of Representatives
Washington 25, D. C.

June 28, 1962

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

Dear Dr.Seaborg:

Your letter of June 15, 1962 relative to my inquiries of June 7th and June 8th about certain aspects of the New Production Reactor at Hanford raises in my mind almost as many questions as it answers. I gather from your letter that:

1. Lacking the authority to convert and operate the NPR as a dual purpose reactor, AEC will now construct the reactor so as to produce 90 p s i a steam during the plutonium-only operation.

2. In order to operate at the contemplated 135 p s i a pressure during dual-purpose operation, certain equipment additions not now contemplated nor authorized would have to be installed.

3. Under the proposed contract with WPPSS, that non-Federal agency would have to finance the required additional equipment installation needed to convert to dual-purpose operation.

After an analysis of your letter and of the AEC answers to certain of my questions as shown on pages 113 and 114 of Part 6 of the hearings on Public Works Appropriations for 1963, I get the feeling the AEC is being somewhat less than frank about the real cause of the tremendous increase in the estimated cost of the NPR at Hanford. A decided tendency to generalize rather than to be fully responsive is apparent.

I may be somewhat at fault in not making my questions more specific and in directing certain of them to the wrong phase of the NPR construction program. From the information presently available, it appears to me that the considerable increase in the

temperature and pressure of the primary coolant system is the principal cause for the tremendous increase in the cost of the NPR. Information from AEC to this effect was given by telephone to one of our staff members prior to the above mentioned hearings. In regard to this question of pressure and temperature, I was somewhat surprised to learn that AEC answers to my questions 1 and 2 as shown on page 113 of the printed hearings differ from the original page proof, in that part of the original answer was deleted. I will say, however, that the deletion of the phrase, "will be somewhat higher," was justified in that it was an understatement of considerable magnitude.

The breakdown of the $43 million increase in the cost of the NPR, as given on page 114 of the hearings, lacks the detail needed for a proper understanding of the factors causing the increase. It is noted that revised cost estimates approved in September 1961 indicated an approximate increase of $20 million and that five months later in February 1962 an additional increase of $23 million was indicated.

Will you please furnish me with a breakdown of the eight items shown for the $43 million increase, so as to show how much of each relates to the September 1961 increase of $20 million and how much of each relates to the February 1962 additional increase of $23 million?

In addition to such a breakdown, will you please furnish me with the answers to the following questions relative to each of the eight items?

1. <u>Piping</u>.

   Is the entire $11.4 million increase for the primary coolant piping? If not, how much?

   It has been indicated that the considerable increase in temperature and pressure required for the contemplated convertibility was primarily responsible for the increase in cost of the primary piping system. Is this true?

   Was any of the NPR piping fabricated and/or installed before it was determined that such piping would not be satisfactory? If so, to what extent?

2. Instrumentation.

What was the primary reason for the $1.3 million increase in instrumentation?

3. Miscellaneous.

Can you give some detail on just what is included in the $6.3 million increase shown under this heading?

4. Estimated Change Order Allowances.

Will you describe in some detail just what change orders were necessary at a cost of $7.0 million?

Had there been any actual fabrication, construction or other work done which has had to be changed, torn out, or replaced?

5. Indirect Construction Costs.

What is covered by this item of $5.9 million? Give details.

6. Engineering Costs.

Explain in some detail just what additional engineering was necessary at a cost of $5.5 million. What is total engineering cost for the NPR and what total fixed fees are included?

7. Project Start-up Costs.

Why is $2.0 million additional needed for this purpose? What is total for the project?

8. Contingency.

What contingency figure was included in the original $145 million estimate?

Where necessary for proper understanding, furnish two separate answers for the above items, one relative to the September 1961 estimated cost and one relative to the February 1962 estimated cost.

I must say with regret, that as of now, I have the feeling AEC has been attempting to minimize or cover up the fact that the major share of the increased cost of the NPR is properly chargeable to the convertibility feature of the reactor. I hope you can furnish, at an early date, answers to my questions in such detail that we can arrive at proper conclusion in this regard.

Sincerely yours,

Van T. Jansen

/A DISTRICT

ADDRESS:
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Congress of the United States
House of Representatives
Washington 25, D. C.

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NOV 86

June 7, 1962

S-3-S 6/14/62

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

Dear Dr. Seaborg:

On Page 13901 of the Congressional Record of August 8, 1961 reference is made to a letter from you dated August 7, 1961, wherein you are reported to have stated that the steam pressures for the turbines (at the Hanford NPR) "have been increased from 235 pounds per square inch absolute to 370."

It is also noted that the FPC supplemental report on NPR, dated February 1961, indicates that a steam operating pressure of 135 pounds was then contemplated under the plutonium-only production period with steam pressures of 235 pounds during dual-purpose or power-only operation.

Will you advise me as to when the decision was made to increase the steam pressure on the NPR? What was the reason for this increase in pressure? Was it made in whole or in part for the purpose of increasing the efficiency of power production during the dual-purpose or power-only phase of operation?

Had any orders been placed for coolant or heat exchange equipment or piping prior to the change in pressure and temperature requirements? What increase in estimated cost resulted from the reported change in steam pressure? What effect did this change in steam pressure have on the delivery time of equipment and on the completion date of the NPR?

Is it not true that if a plutonium-only reactor had been authorized for Hanford, there would have been no need to go to the higher steam pressure now contemplated?

An early reply will be appreciated.

Sincerely yours,

Ben F. Jensen

IOWA DISTRICT
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Congress of the United States
House of Representatives
Washington 25, D. C.

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June 8, 1962

JBS 6/11/62

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

Dear Dr. Seaborg:

In analyzing the various reports on the feasibility and costs relating to the New Production Reactor at Hanford, I can not find any concrete answers to the following questions:

1. Can a greater rate of plutonium production be achieved under plutonium-only operation of NPR as compared with dual-purpose operation? If so, what is the percentage increase?

2. Will there be a greater fuel burn-up per unit of plutonium production during dual-purpose operation as compared to plutonium-only operation? If so, what is the percentage increase?

3. Will the operation and maintenance costs of the NPR under dual-purpose operation be greater than under plutonium-only operation? If so, what would be the percentage increase?

The index of unit plutonium production costs shown on Page 9 of the March 1961 Joint Committee Print of JCAE seems to indicate that the answers to the first part of each of the above questions would be in the affirmative. However, I will appreciate your direct answers at your earliest convenience.

Sincerely yours,

Glenn Norman

DO FILE

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

UNCL. BY DOE
NOV 86

JUN 15 1962

Dear Mr. Jensen:

This is in reply to your letters dated June 7 and 8, 1962 regarding the New Production Reactor, now under construction at AEC's Hanford Works in the State of Washington. Your June 7 letter raised several questions regarding the steam pressures that would be produced at the NPR during the initial (plutonium-only) period of operation and later periods of possible dual-purpose and power-only operations. Your letter also referenced my letter of August 7, 1961 to Congressmen Holifield, indicating that the estimated steam pressures for power-only operation had been increased from 235 pounds per square inch absolute (psia) to 370 psia.

The steam pressures shown for the most economically attractive cases in the 1961 Federal Power Commission's report on NPR conversion were 135 psia during the dual-purpose period and 235 psia during the power-only period. The steam pressures during plutonium-only operation will be somewhat less: in the neighborhood of 90 psia; this plutonium-only steam pressure is not considered in the 1961 FPC Report.

The increase in steam pressure from approximately 90 psia during plutonium-only operations to 135 psia during dual-purpose operations would result from equipment additions that were planned to be installed in converting the NPR for dual-purpose operations should such conversion be undertaken. Without equipment additions of this type, the pressure would remain at 90 psia. In the case of the current proposal, such equipment additions would be directly financed by the Washington Public Power Supply System (WPPSS).

The increase in steam pressure from 135 psia during dual-purpose operations to 235 psia for power-only operations, as used in the FPC Report, results principally from the different operating procedures which would be employed for optimum power-only operations.

The increase in estimated power-only period pressures from 235 psia to 370 psia, as discussed in my above-referenced August 7, 1961 letter, was the result of improved technical evaluations of NPR performance during periods of power-only operation. These revised

cc: Chairman

10.

evaluations were formally accepted subsequent to publication of the 1961 NPC Report. However, they did not affect steam pressures for plutonium-only or for dual-purpose operation.

1. Q. When was the decision made to increase the steam pressure in the NPR?

   A. This question presumably refers to the increases stated in my August 7 letter, viz, 235 to 370 psia. The revised evaluations, upon which this increase was based, were provided to AEC by the architect-engineer in May 1961.

2. Q. What was the reason for this increase in pressure?

   A. This increase was based upon revised technical evaluations of NPR performance during periods of power-only operation; it was not the result of any specific equipment additions or modifications in the reactor plant; it resulted only from more refined engineering studies conducted by the architect-engineer for the NPR project.

3. Q. Was the increase made for the purpose of increasing the efficiency of power production during the dual-purpose or power-only phase of operation?

   A. As indicated above, the new evaluations did not affect the dual-purpose period steam pressures. While they did increase the efficiency contemplated for NPR power-only operation, this increased efficiency was not the result of physical changes in the facility but rather a new evaluation of plant performance.

4. Q. Had any orders been placed for coolant or heat exchanger equipment, or for piping prior to the change in pressure and temperature requirements?

   A. Orders for all of this equipment had been placed prior to the establishment of the increased pressure and temperature. These orders did not have to be changed as a result of the revised evaluations.

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5. Q. What increase in estimated cost resulted from the reported change in steam pressure?

   A. There was no increase in the estimated cost of the authorized reactor plant as a result of these changes.

6. Q. What effect did this change in steam pressure have on the delivery time of equipment and on the completion date of the NPR?

   A. This change had no effect on delivery time for equipment nor the completion date of the NPR.

7. Q. Is it not true that if a plutonium-only reactor had been authorized for Hanford, there would have been no need to go to the higher steam pressure now contemplated?

   A. The Commission last studied a "non-convertible" plutonium-only reactor in 1958. That design provided for heat dissipation in water-to-water heat exchangers; thus, steam generation was not involved. The generation of steam in the NPR is the result of incorporating convertibility features into the NPR.

Your June 8 letter contained three questions, the answers to which are as follows:

1. Q. Can a greater rate of plutonium production be achieved under plutonium-only operation of NPR as compared with dual-purpose operation? If so, what is the percentage increase?

   A. Our design studies have shown no difference in the plutonium production rate during plutonium-only operation of the convertible NPR and dual-purpose operation after conversion.

2. Q. Will there be a greater fuel burnup per unit of plutonium production during dual-purpose operation as compared to plutonium-only operation?

   A. The fuel burnup per unit of plutonium production would not be different during dual-purpose operation as compared to plutonium-only operation.

3. Q. Will the operation and maintenance costs of the NPR under dual-purpose operation be greater than under plutonium-only operation? If so, what would be the percentage increase?

A. Yes. We would expect some increase in operation and maintenance costs of the reactor plant after conversion for dual-purpose operation. These increases are explained by the additional equipment which we expect would be installed and necessarily operated and maintained (see paragraph 3 above). The magnitude of this increase is dependent upon the technical design of the conversion project and the operational procedures which will be required; these have not yet been finalized. As explained in my May 4, 1962 letter, AEC's position with regard to the current Washington Public Power Supply System (WPPSS) proposal is that all such cost increases would be borne by the WPPSS.

With regard to unit plutonium production cost, as stated in my May 4 letter, we are unable at this time to specifically state what effect conversion of the NPR by the WPPSS would have on plutonium unit cost, since we have not yet completed negotiations with WPPSS. However, we expect conversion of NPR by the WPPSS would result in reduction in unit plutonium production costs.

Please let me know if I can provide any further information.

Sincerely yours,

(Signed) Glenn T. Seaborg

Chairman

Honorable Ben F. Jensen
House of Representatives

cc: GM
Cong. Liaison (2)
OGC
Production (5)

PRR:AGMPP SHOMALTER/acs/ QUINN/nmb | OGC | Cong. Lia. | AGM | DGM | GM

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Lyman Fink (General Electric, Palo Alto) came in to see me at 11:45 a.m. He said that the Indian group is ready to go ahead with the purchase of the Tarapur reactor from either an American or French concern. He said that G.E. has some problems with the modified third-round approach for the support of design studies. He mentioned that these objections have been outlined in a letter from White to Pittman. (I later mentioned this to Luedecke and asked that he look into this matter.)

Fink said he wanted to alert me to the Hanford labor situation since their contract expires in the fall of 1963, and, therefore, negotiations will start next spring. He is particularly concerned that the Ching Panel might become involved. He referred to them as "evil" and "irresponsible," saying that in the case of the Rocky Flats dispute, they actually increased the raise requested by labor during their mediation role. I told him I feel that the Ching Panel will remain in the picture and that they are held in high regard around Washington. He said that he has a vague uneasiness about the NPR. He feels that it might fall behind schedule and have still further increased costs.

Frank Carey (Associated Press) called to ask if I could give him any advance word, for coverage purposes and not necessarily for story purposes, as to when tests, atmospheric, as well as underground, will be held in Nevada. I told him the AEC hopes to put out an announcement tomorrow on the first test of the series.

I sent a letter to the President requesting approval for an extension of the underground testing program at NTS through September 30, 1962 (STORAX I).

I went to the Uptown Theater with Pete, Dave, Steve and Eric to see West Side Story.

Wednesday, July 4, 1962 - HOLIDAY

I worked on AEC papers and speeches at home.

Helen and I had dinner at the home of Chet and Cam Holifield. Their apartment overlooks the Potomac River which gave us a good view of the fireworks display at the Washington Monument. Others present were Peggy and Bob LeBaron, the Paul Fosters, the Clint Andersons, Allan Judson, Dr. Stokes (a political scientist from Claremont College in California - at War College this year) and Fred Dutton. The LeBarons told me that, out of the thirty percent of their income which will go to charity, that for a number of years, they can contribute some or all of the unattached ten percent and some of the twenty percent that goes to the LeBaron Foundation to the Lawrence Hall of Science.

Thursday, July 5, 1962 - D.C.

At 10 a.m. I presided over Information Meeting 174 (notes attached).

I discussed with Wilson and Haworth the possibility of dividing the 1962 Fermi Award between Edward Teller (recommended by a split vote of the GAC, 8-1) and Oppenheimer, if it is legal to do so, or giving the 1962 Award to one and the 1963 Award to the other one.

At 1:30 p.m. Commissioner Wilson, Haworth and I, along with Luedecke and Hennessey, met with Udall, Luce, Hurd (WPPSS), Holifield, Kenneth Holum, Ramey and others to discuss procedures in view of the Republican congressional opposition to the NPR conversion facilities for WPPSS. I agreed to send Holifield a letter saying that the AEC is ready to sign an agreement with WPPSS on the basis of an FPC recommendation as to the value of steam, assuming that the Comptroller General says we have the authority to do so.

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

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COPY NO. 15

July 5, 1962

INFORMATION MEETING 174

10:05 a.m., Thursday, July 5, 1962 - Chairman's Office, D. C.

1. Chairman's Discussion with Mr. Lyman Fink, GE.

The Chairman said that in a recent conversation with Mr. Fink, the following matters were discussed:

(a) Indian Tarapur Reactor - Mr. Fink indicated that the Indians were ready to proceed and had expressed interest in long term fuel guarantees and plutonium buy-back.

(b) Contracts under the modified third-round approach - Mr. Fink expressed GE's concern about the degree of Government ownership of design, and the Chairman thought it essential that the AEC maintain maximum flexibility under the revised criteria in the Bill. Staff is to consider the revised criteria in this light and review Mr. Fink's recent testimony on the matter. Additionally, the Chairman said he would mention the matter to Congressman Holifield today at the meeting at Interior. (Gen.Counsel - Pittman - Henderson)

(c) Alaskan Group Proposal re 22 MWE Reactor Plant - Mr. Fink noted the problems of REA support, and the Chairman suggested that, although AEC could not initiate discussions with REA on the matter, the Commission would be alert to the possibility of consideration if the proposal is forthcoming.

(d) Hanford Labor Contract expiration - fall of '63 - Mr. Fink noted the expiration date of the contract and the possibility there would be problems in the negotiations for renewal.

(e) NPR - Schedules and Costs - Mr. Fink did not express any optimism re meeting the schedules and costs. The Chairman requested a report delineating the responsibilities for construction and operation of the NPR. (Quinn)

2. Uranium Production Planning.

The Commissioners discussed briefly the desirability of stockpiling, toll enrichment, etc., and the General Manager said he would have early recommendations on the pre and post-1966 planning.

3. Draft July 3 Letter to Chairman, MLC, re Uranium Production Planning.

For discussion at Commission Meeting Friday, July 6. (Quinn)

4. Joint Committee July Hearings on the Smyth Report on IAEA.

Dr. Haworth and staff will testify. The Chairman requested staff follow up on the recent AEC-State discussion of the report. (Wells)

The Chairman noted the June 28 telegram from the Vienna Mission with its recommendations on the Smyth report will be circulated for the Commission's information. (Secy)

5. Third International Conference on Peaceful Uses of Atomic Energy -1964.

The Chairman noted Mr. Wells' July 3rd memorandum discussing the proposed conference and the desirability of U. S. support at the next session of the U.N. General Assembly. The Chairman suggested close staff liaison with the State Department to assure this action. (Wells)

6. Commissioner Graham's June 29th Memorandum re Safety Rules for Nuclear Powered Navy Vessels.

The General Manager noted the memorandum is in staff for recommendations to the Commission. (Ink)

7. Admiral Rickover's July 5th Memorandum Forwarding CNO Request re NAUTILUS Visit to Portland, England.

The Chairman said, in view of the proposed visit dates and the status of the Commission's consideration of safety rules review, Admiral Rickover should be informed that this request should be taken care of in a similar manner as previous requests. (GM)

8. July 17th Meeting with BoB Director Bell re Long Range Budget Planning.

The Chairman noted the need for the Commission to consider this matter prior to the meeting. (Abbadessa)

9. July 3rd Letter to the President re Storax.

The Chairman noted the letter had been transmitted.

10. Joint Committee ROVER-SNAP Hearings Late July.

Noted.

11. Joint Committee Contract Policy Hearings Late July.

Noted. The Chairman requested preparation of a memorandum to BoB Director Bell discussing the problems of contracts with non-profit institutions (Universities). Mr. Henderson will discuss the memorandum with Dr. Haworth. (Henderson)

12. Air Force Proposal for Joint AEC/Air Force Management of Advanced SNAP-50 Programs.

The Chairman requested early consideration. (Pittman)

13. AEC Comments to Senator Anderson re Fuels and Energy Study.

To be circulated. (Secy)

14. Commission Report on Civilian Nuclear Power Study.

The Chairman noted desirability of early discussion with the Joint Committee.

15. Joint Committee Report on AEC Omnibus Bill.

Mr. Hennessey reported briefly on the provision of the Bill re: (a) Regulatory Hearings; (b) the Atomic Licensing Board; and (c) Amendments to Price/Anderson Act (indemnity).

✓16. Movements of Everyman I and Everyman II. Hennessey memo attached

Mr. Hennessey reported that Everyman I has now sailed from San Francisco and is under surveillance by the Coast Guard.

Everyman II has been towed back to Honolulu.

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

W. B. McCool
Secretary

Friday, July 6, 1962 - D.C.

At 11:30 a.m. I presided over Commission Meeting 1860 (action summary attached). The Commission approved a report saying that the WPPSS could operate the converted NPR safely. However, we have received a letter (copy attached) from the Assistant Comptroller, General Frank H. Weitzel, saying that they have decided that the AEC doesn't have the legal authority to enter into a contract with WPPSS to allow them to convert the NPR to electric power production. This is a large and possibly lethal blow to this project.

Commissioners Wilson, Haworth and I had lunch at the Metropolitan Club with the members of the ACRS prior to a meeting with them.

We met first with the ACRS and then with Maritime Administrator Alexander to iron out the impasse that has developed over authorizing the NS Savannah to enter ports. We succeeded in getting the ACRS to agree that it can enter ports under nuclear power and Alexander to agree that the Maritime Commission will agree on some of the restraints and safeguards requested by the ACRS.

The SEDAN cratering shot (100 KT at 650 feet below ground level) went off today in Nevada. It seemed to be successful; however, ten people had to be evacuated, the road was closed for a time, and the airline lane was closed to avoid moderate fallout hazards. STARFISH was postponed again last night (it was also postponed the night before). It is now scheduled for tomorrow morning.

I called Holifield to discuss the GAO decision and in his absence talked to Ramey. Ramey feels that Van Zandt will offer amendments even though this decision has been made. The question now is whether something should be done in terms of an amendment that would authorize this kind of an arrangement. Ramey thinks the best tactic to use is to fight the Van Zandt amendment in the House, let it go to the Senate and, when it comes back to the House, go into conference. Another alternative would be to go to the Attorney General and perhaps we could get him to use legal judgment. He said generally the Attorney General does not get involved in contractual matters or matters involving government pay, but this matter is not really a contractual matter. I said I think this would be something for the White House to decide and he agreed. Ramey will try to reach Holifield this weekend in Atlantic City. Ramey suggested that we meet on Monday.

I called Dungan about the GAO ruling and I told him I have talked with Ramey in Holifield's absence. Dungan feels we should wait until we hear from Holifield.

Saturday, July 7, 1962 - D.C.

I spent the morning at the office.

Mrs. Peery and sons Tom and Earl, former neighbors from Lafayette, California, arrived by train at 10 a.m. to visit us. The Peerys and Seaborgs visited Fort Washington and also the National Archives.

Sunday, July 8, 1962

I worked on the speech I will give to the Office of Education on July 24th, "Education for the Age of Science: The Role of the Federal Government," and on the McMahon Lecture that I will give at the University of Connecticut in October, "New Perspectives in Atomic Energy."

The Peerys and the Seaborgs visited with the Sam Neel family in McLean. Everyone, with the exception of me, swam in Robert Kennedy's (neighbors of the Neels)

OPTIONAL FORM NO. 10
5010-104
UNITED STATES GOVERNMENT

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NOV 86

Memorandum

TO : A. R. Luedecke, General Manager

DATE: July 6, 1962
Approved
A. R. Luedecke
Date

FROM : W. B. McCool, Secretary Original signed W. B. McCool

SUBJECT: ACTION SUMMARY OF MEETING 1860, JULY 6, 1962, 11:25 A.M., ROOM 1113-B, D. C. OFFICE

SYMBOL: SECY:WLW

Commission Business

1. Minutes of Meeting 1851

Approved.

2. AEC 696/111 - Hazard Analysis in the Matter of WPPSS Proposal to Operate the NPR

The Commission noted that there is no reason to believe that the NPR could not be operated in the future as a power reactor, under the assumptions stated in AEC 696/111, without undue risk to the public health and safety. (Lowenstein - Baranowski)

The JCAE is to be informed of this action. (Baranowski)

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

Approved, as revised, subject to comments from various universities, the National Science Foundation and the Department of Defense.

The Commission requested that guests of Group B contractors be exempted from the requirements as outlined in paragraph 17 c. of AEC 89/9. (Traynor)

The Commission also requested that the Atomic Bomb Casualty Commission be exempted from the new policy contained in AEC 89/9. (Traynor)

4. AEC 580/161 - Projected Needs for Production of Enriched Uranium

Discussed.

COMPTROLLER GENERAL OF THE UNITED STATES
WASHINGTON 25

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B-149016

July 6, 1962

OFFICE DIARY
GLENN T. SEABORG
Chm USAEC, 1961-72
FOLDER-PAGE 19026

Honorable Glenn T. Seaborg, Chairman
United States Atomic Energy Commission

901192

Dear Dr. Seaborg:

By letter of June 6, 1962, signed by the General Manager, our views have been requested on the authority of the Commission to enter into a proposed agreement with the Washington Public Power Supply System (WPPSS), a public agency of the State of Washington, whereby steam to be produced at the New Production Reactor (NPR), authorized for construction as Project 59-a-5 under Public Law 85-590, would be utilized for the production of electric energy in a generating plant to be constructed by WPPSS. Under a proposed agreement between WPPSS and the Bonneville Power Administration (BPA) the resulting electric energy would be delivered to BPA on an exchange basis.

Section 101 of Public Law 85-590 provides, in pertinent part, as follows:

> "Sec. 101. Plant or Facility Acquisition or Construction.—There is hereby authorized to be appropriated to the Atomic Energy Commission, in accordance with the provisions of section 261 a. (1) of the Atomic Energy Act of 1954, as amended, the sum of $386,679,000 for acquisition or condemnation of any real property or any facility or for plant or facility acquisition, construction, or expansion, as follows:
>
> (a) Special Nuclear Materials.—* * *
>
> 5. Project 59-a-5, production reactor facility for special nuclear materials, convertible type, Hanford, Washington, $145,000,000."

The primary purpose of the project is the establishment of a plant for the production of plutonium. The plant is to be so constructed as to permit its conversion to the production of electric energy either in lieu of, or in addition to, the plutonium. An amendment introduced in the Senate to reduce the appropriation authorization to $140,000,000, having as its purpose the elimination of the convertibility feature, was defeated on July 15, 1958.

On June 8, 1961, there was introduced in the House of Representatives H.R. 7576, 87th Congress, which in its original form would have authorized an appropriation for—

CONFIRMED TO BE UNCLASSIFIED
AUTHORITY: DOE-DPC
BY R.G. BOGER DATE: 6/24/86
JDiaz 6/24/86

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Chr USAEC, 1961-73
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"Project 62-a-6, electric energy generating facilities for the new production reactor, Hanford, Washington, $55,000,000."

That project was deleted by amendment on the floor of the House on July 13, 1961. The Senate reinstated the project at an authorization of $58,000,000, but receded from its position and the resulting Public Law 87-315 excluded Project 62-a-6.

Agreements between WPPSS and AEC and BPA, respectively, have been proposed by WPPSS as a means of converting the NPR to dual purpose operation and to utilize the resulting energy without any additional appropriation of Federal funds or Congressional authorization. By letter of November 28, 1961, WPPSS proposed certain basic terms and criteria for the agreements with the two Federal agencies. With respect to BPA these have ripened into a series of draft agreements, the latest of which, to our knowledge, is preliminary draft No. 6, dated June 5, 1962. As to AEC we are not aware of the existence of any draft agreement. However, the basic terms and criteria have been reviewed by AEC and certain modifications have been suggested as a result in a letter of April 6, 1962. Our review of the legality of the AEC-WPPSS agreement is based on the assumption that the ultimate understanding would reflect the basic terms proposed by WPPSS as modified by AEC.

Briefly, the agreement between AEC and WPPSS would provide that:

1. AEC would lease to WPPSS land adjacent to the NPR for the construction and operation of the electric generating facilities.

2. WPPSS would design, construct and operate the electric generating facilities.

3. Additions or changes in the NPR in connection with dual purpose operation would be performed by AEC with funds advanced by WPPSS. AEC would take title to and exercise complete control over the resulting equipment.

4. WPPSS would issue revenue bonds to defray the capital cost of the project.

5. WPPSS would purchase from AEC steam resulting from the operation of the NPR by AEC. During periods when the NPR was not being operated by AEC, WPPSS would lease the facility for production of steam, subject to immediate recapture at the option of AEC.

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6. The term of the agreement would be not less than the time necessary to amortize the bonds sold by NPPD to finance the project. At the expiration of the agreement, or when the bond indebtedness was retired, the Government could, at its option, take title to the electrical generating and related facilities. In addition, the Government could acquire title to the facilities at any prior time by payment of an amount sufficient to satisfy the obligations incurred under the project.

Section 261a of the Atomic Energy Act of 1954, as amended, 42 U.S.C. 2017, includes the following:

> "a. There are hereby authorized to be appropriated such sums as may be necessary and appropriate to carry out the provisions and purposes of this Act, except—
>
> '(1) Such as may be necessary for acquisition or condemnation of any real property or any facility or for plant or facility acquisition, construction or expansion: Provided, that for the purposes of this subsection a., any nonmilitary experimental reactor which is designed to produce more than 10,000 thermal kilowatts of heat (except for intermittent operations) or which is designed to be used in the production of electric power shall be deemed to be a facility. * * *'"

The section up to the proviso is identical in form with the enactment in 1954. As originally introduced, H.R. 9757, 83rd Congress, which became the Atomic Energy Act of 1954, contained a section 261, providing in pertinent part—

> "Sec. 261. There are hereby authorized to be appropriated such sums as may be necessary and appropriate to carry out the provisions and purposes of this Act except such as may be necessary for acquisition or condemnation of real property or for plant construction or expansion. * * *"

The purpose of the provision in its original form was stated at page 31 of House Report No. 2181, 83rd Congress, to be to require the Commission "to obtain congressional approval of new construction, or expansion, of its plants." The Senate amended that portion of section 261 to read—

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"Sec. 261. There are hereby authorized to be appropriated such sums as may be necessary and appropriate to carry out the provisions and purposes of this Act except such as may be necessary for acquisition or condemnation of real property or for plant construction or expansion (other than for such acquisition, condemnation, construction, or expansion as may be undertaken under the authority of section 45 a. of this Act. * * *"

Section 45 a., referred to above, contained the following:

"a. The Commission is empowered to produce or provide for the production of electric power and other useful forms of energy derived from nuclear fission in its own facilities or in the facilities of other Federal agencies. * * *"

The Senate amendment was eliminated in conference. The conference report, House Report No. 2246, 83rd Congress, explains the deletion at page 43 as follows:

"Since there was no thought that the Commission, in carrying out its obligations under this act, should not be required to get congressional approval for its operations, the amendment made by the Senate to section 261 which exempted the Commission from the necessity of obtaining congressional approval for certain construction and acquisition projects was deleted by the conference substitute."

From the foregoing it is clear that the Congress intended that an authorization be first obtained for the construction of electric power generating as well as other facilities. The Joint Committee on Atomic Energy in reporting out S. 4011, 83th Congress, which became Public Law 83-590 stated in Senate Report 1793 (also House Report No. 2246) at page 8 with respect to the project—

"Project 59-e-5 would authorize the expenditure of $145,000,000 for a convertible type of production reactor which would permit optimum production of plutonium consistent with minimum cost of product. The reactor initially would be operating solely for plutonium production. It would be designed in such a way, however, that it could be converted with modification to produce electric power; such conversion would be contingent upon future congressional authorization and appropriations. The conversion of this

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otherwise wasted heat to electric power would substantially lower the cost of production of plutonium. This conversion capability is also considered prudent to permit practical utilization of the reactor in the future event that enforceable international disarmament agreements are entered into whereby production of reactor products for military uses are curtailed or stopped. Under such conditions the reactor could be converted to peaceful purposes in the production of electricity. In the interim, during construction and operation, such a convertible type of production reactor will assist the advancement of the art of reactor development." (Underscoring supplied.)

As indicated earlier, a measure to specifically authorize construction of electric energy generating facilities in connection with the KWR failed of enactment in Public Law 87-315.

We think that the following summarization may fairly be derived from the foregoing:

1. The legislative history of the Atomic Energy Act of 1954 shows an intent by the Congress that no electric energy generating facility should be built by AEC without Congressional authorization.

2. In authorizing Project 59-e-5 the Congress intended that conversion of the KWR to dual purpose operation follow Congressional authorization and appropriation.

3. The Congress, after thorough consideration, refused to authorize AEC to construct an electric generating plant at Hanford.

It may be argued that the above conclusions are not relevant the proposed agreements because the construction and operation would neither be performed nor paid for by the Government. Nevertheless Project 59-e-5 is being constructed by AEC under an authorization contemplating the inclusion in the KWR of a convertibility feature without actual conversion except pursuant to Congressional authorization and appropriation. Under the proposed WPPSS-AEC agreement the KWR would in fact be converted to dual purpose capability. We do not know the precise extent to which the KWR will thus differ from the project authorized by the Congress. It appears, however, from the correspondence between AEC and WPPSS and from information we have obtained informally that addition to the KWR of the features and

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equipment necessary to carry out the proposed agreement with WPPA will involve expenditures presently estimated at about $25,000,000, subject to change pursuant to engineering and economic decisions yet to be made and agreed to by AEC and WPPA. (This amount is aside from the substantially larger expenditures that would be made for the main generating facilities.) We are therefore of the view that the proposed agreement would result in materially changing the form of Project 59-a-5 from that authorized by the Congress and, therefore, requires specific Congressional approval, even though the additional amount would be paid by WPPA and the cost to the Government would not be increased. 34 Comp. Gen. 599.

Our views on the matter are also being furnished the Chairman of the Joint Committee on Atomic Energy and Congressman John Ruber at their request.

Sincerely yours,

FRANK H. WEITZEL

Assistant Comptroller General
of the United States

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swimming pool, and the kids played on the Kennedy trampoline. (The Kennedys were not home.)

I also read some journals.

Monday, July 9, 1962 - D.C.

At 10:30 a.m. I attended a National Security Council meeting in the Cabinet Room of the White House. Present were: the President, McNamara, Gilpatric, Lemnitzer, Rusk, Ball, Alexis Johnson, McCone, Wiesner, Bell, McDermott, Vice President Johnson, Dillon, Kaysen, Bromley Smith, Foster, Robert Kennedy, Murrow, Taylor, Webb, Decker, and LeMay.

McCone began the briefing by saying it would consist of a summary of Soviet capabilities for nuclear attack. He said that 40 copies of a report on this subject would be distributed today. The President questioned whether this is too large a number in view of the sensitivity of the report and suggested it be looked into. McCone then called on Stoertz, who gave a detailed report on the Soviet ICBM and MRBM launching sites, nuclear and other submarine capability for launching missiles, etc. McCone said that we will increase our satellite reconnaissance capability this summer because the Soviets have the capability to inflict serious damage on the U.S. He added that the CIA needs to increase its capability even further.

The President said that the same group would meet tomorrow at 10 a.m. to discuss space policy and intelligence requirements - the second item on the agenda.

Before the NSC meeting I talked with Secretary Rusk, George Ball and Alexis Johnson and told them of a conversation I had with Harry Smyth about making more of his time available and the need to make the place where he reports to the State Department more definite. I had the impression that they agreed to the value of using more of Smyth's time and that they would look into the possibility of an arrangement whereby he might divide time between the AEC and the State Department.

I also talked to McCone, who said he would like to have a briefing on the results of our atmospheric testing. I said that we would make arrangements for the briefing during the last half of July.

Congressman Jensen called about the ruling from the Comptroller General on the WPPSS and asked if I intended to answer it. He said he would like to have me state the AEC position to the JCAE and he thought we should say we will abide by the Comptroller General's ruling whether we approve of it or not. I told him I thought he should be given our frank opinion. I said we might ask for a reconsideration of the ruling, but this decision has not been made by AEC yet. Jensen said, regardless of whether we ask for a reconsideration, he feels we should write a letter to the JCAE saying we will abide by the Comptroller General's decision until he rules otherwise. I told him we don't plan to do anything that isn't legal and I will discuss this further with our General Counsel.

Dwight Ink called and said he has just had a telephone call from John Finney who told him that a story is circulating widely among the Time magazine staff that a number of scientists associated with our test program are now proposing and urging that we continue indefinitely with atmospheric testing at Christmas Island. Finney wondered if this story is confused with the possibility of our going ahead with the two shots which failed. Dwight told him there has been no discussion at the policy level of whether testing should continue and, therefore, from the standpoint of our seriously considering this or being involved in a policy question, the answer is no. I told him I agree with his reply.

STARFISH went successfully (1.4 MT at 400 KM over Johnston Island) at 5:09 a.m. (local time 11:09 p.m. last evening). It apparently lit the sky all the way to Hawaii and Australia.

I had a call from Holifield who doesn't think there is any effective way of fighting the Comptroller General's ruling regarding WPPSS. As an alternative he may introduce a bill authorizing the AEC to go ahead with the project. He has to hold hearings either tomorrow or Wednesday. I told him that my schedule tomorrow is such that I will not be able to appear but that Commissioner Wilson can do it. I will be willing to testify on Wednesday. By that time there will be testimony by George Quinn and Joe Hennessey clarifying the provisions of the contract. AEC will be followed by WPPSS people and then by Bonneville representatives. He said that Quinn and Hennessey should get in touch with Ramey directly to find out what information will be needed.

I had lunch at the F Street Club with Harvey White, Robert and Peggy LeBaron to discuss the fundraising campaign for the Lawrence Hall of Science.

At 2 p.m. I met with J. L. Wyatt (Vice President), Morton J. Klein (Assistant Director of Chemistry Research), C. Roland McCully (Scientific Advisor of Chemistry Research) and Fred G. Harlow (Washington representative) of Armour Research Foundation. They described to me their work on the conversion of heat to electricity using thermally regenerative chemical cells of liquid halides. They feel this work has obvious applications to either reactor power or isotope power heat conversion in satellites. They are interested in the possibility of a contract to investigate how this system of conversion might tie in with the whole AEC power program, that is, civilian power reactors as well as satellite applications. I said the next step, in order to explore this further, would be to get in touch with Frank Pittman.

At 3:30 p.m. I met with Admiral Paul Foster who said he wants to give me some of the background on the IAEA on the basis of his experience with it. He began by recounting some of the occurrences which he thinks contributed heavily to the Agency's becoming a political battleground. He said, when he first went to Vienna in June of 1959, succeeding McKinney as U.S. Representative, he had a talk with the Russian representative. The latter suggested that, if the United States would agree to the election of a East European (such as a representative of Hungary, Romania, or possibly Poland) to be President of the Conference, he would make a commitment that representatives of non-Soviet bloc countries would be President of the following two conferences.

Foster thought this was reasonable and convinced McCone and the upper echelons of the State Department to go along, but later it was reversed through the efforts of two people from lower levels in the State Department. This reversal made a great impact on the Russians. He said another difficulty was Cole's personal behavior as well as his unintelligent attitudes on a number of major issues. Another point of difficulty arose from the State Department's adamant attitude against granting consultative status to the Soviet-backed World Federation of Trade Unions. He thinks that a little more middle-of-the-road conciliatory attitude here would have made it possible for the Agency to get off to a much better start.

Foster then went on to say that he isn't much impressed with the recent report of the Smyth Committee. He said there is nothing new in it and that, if we use this as the basis for my report at the General Conference this fall, the delegates will be very much unimpressed. He thinks that, with the exception of Haworth, the choice of this Study Committee is particularly unfortunate and feels that the inclusion of names such as Eisenbud, Sporn and Trapnell will not help the report's

reception by the Joint Committee. He said he thinks it is a mistake not to have consulted men like Harold Vedeler (now Director of the Office of Eastern European Affairs in the State Department, but former Senior Political Advisor to Foster and McKinney at Vienna), Mose Harvey (who was the Senior Political Advisor preceding Bill Cargo and served during Foster's term), Foster himself, McKinney, Amasa Bishop (whose experience with Euratom makes him very knowledgeable), Jim Haycock (formerly with the Agency in Safeguards and now with the AEC), Norman Rogers (formerly with the Agency as Chief Budget Officer and now with AEC), R. F. Barker (formerly with the Agency in Health and Safety and now with AEC). He thinks that two worthwhile areas for U.S. proposals at the forthcoming Vienna Conference (both of which he has passed on to Graham) are: 1. a program for water desalination applicable to underdeveloped countries and 2. a new program of fellowships for underdeveloped countries using the Puerto Rican Research Center and the Argonne International School.

At 3:55 p.m. I talked with Holifield again about the WPPSS hearing tomorrow morning, and we agreed that Commissioner Wilson will make the opening statement. We agreed the statement will be short and constructive and will state that Quinn and Hennessey will answer detailed questions. When the question of our receiving the letter from GAO comes up, as it most surely will, we will say we have received the letter but will make no statement as to what we intend to do about it.

Tuesday, July 10, 1962 - D.C.

From 10 a.m. to 11 a.m. I attended a National Security Council Meeting in the Cabinet Room of the White House.

DELETED

DELETED

At 11:40 a.m. I saw the President along with Bundy, Wiesner and Keeny. After an explanation by Bundy and me of the arguments for URRACA, the President gave the go-ahead for this shot to follow BLUE GILL and, hence, to come on about August 6. He also approved the first two, that is the mid-Judy shots of the STORAX underground series in Nevada. He also approved LITTLE FELLOW I which had not yet been approved for Nevada. We reviewed for him all the remaining atmospheric shots at Christmas and Johnston Islands and Nevada, with their dates. After the meeting, Bundy and I agreed that the decision on URRACA would be regarded as an approval only for preparation and not for firing so that we would be less likely to have a harmful leak on this.

In the afternoon I attended the All Star Baseball Game at the Washington Stadium with Pete, Dave, Steve, Tom and Earl Peery. The National League won with a score 3-1.

During the morning Wilson and Quinn testified before the JCAE on AEC views favoring the NPR conversion by WPPSS. In view of the adverse GAO ruling, Holifield may introduce authorizing legislation.

I sent my biweekly report (attached) to the President today.

I met with the heads of regulatory agencies at the Metropolitan Club. Present were Halaby (FAA), Boyd (CAB), Bell (BOB), Macy (CSC), Swidler (FPC), and Dixon (FTC). We discussed mutual and general problems.

I saw the first use of the AT&T "Telestar" satellite on TV.

<u>Wednesday, July 11, 1962</u> - D.C.

At 10:15 a.m. I presided over Information Meeting 175 (notes attached).

I called Bundy and told him that PAMLICO (an LRL advanced device of several MT) went at Christmas Island at approximately 11:30 a.m., EDT, and that this winds things up at Christmas Island. I asked whether we shouldn't be a little discriminatory about closing out. Bundy suggested that a check be made to see

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OFFICE DIARY
GLENN T. SEABORG
Chr USAEC, 1961-72
FOLDER-PAGE 19044

July 10, 1962

PERSONAL AND

Dear Mr. President:

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

1. N.S. SAVANNAH (Unclassified)

N.S. SAVANNAH sea trials have been completed with excellent results and preparations are now underway for extended experimental operations along the coasts of this country and abroad. Although her itinerary is a primary responsibility of the Department of Commerce, Maritime Administration, it is understood that the first port of call will be Savannah, Georgia, in late August. Present plans then call for a possible visit to Seattle, Washington, in October 1962, before the end of the Seattle World's Fair.

The matter of safety restrictions on port operations of the N.S. SAVANNAH has been under intensive study and review by the Regulatory Staff and the Advisory Committee on Reactor Safeguards for the past three months. The Commissioners met with the members of the Advisory Committee on Reactor Safeguards on July 6 to discuss this subject. Based on these discussions, the joint AEC-Maritime group will promptly develop safety criteria for port operations for the next six-month period and submit them to the Regulatory Staff and the Advisory Committee on Reactor Safeguards for review and recommendation. It is expected that this work will be completed within the next several weeks.

CANCELLED
WITH DELETIONS
6/4/86
6/4/86

030A

2. Plowshare Experiment - SEDAN (Official Use Only)

Project SEDAN, the second nuclear experiment in the Plowshare Program, was executed at 1:00 P.M. EDT, on Friday, July 6. A photographic view of the crater formed by the SEDAN explosion appears in the left center of the attached photograph. The SEDAN excavation may be compared with the two adjacent craters on the lower right side of the photograph which were formed by a 1.2 KT nuclear explosion several years ago and with the crater at the extreme right center of the photograph formed by a .5 KT high-explosive detonation (SCOOTER), as designated by the captions.

SEDAN was the first of the series of experiments planned to develop a nuclear excavation capability in response to your directive to determine within approximately five years the feasibility, costs and other factors involved in nuclear methods of excavation. Early results indicate that the experiment was highly successful and that large nuclear excavations can be accomplished with complete safety when conducted with appropriate precautions.

Preliminary indications are that any off-site radiation exposures were below the maximum predicted and considerably lower than the guide of 3.9 roentgens per year used for detonations at the Nevada Test Site.

3. Labor Situation (Unclassified)

It was reported to you on June 26 that there was a possibility of labor difficulty at the Nevada Test Site. The Teamsters Union called a work stoppage of all fire fighters engaged at NTS effective at 1:30 P.M., Nevada time, on July 9, which continues to this time. This involves fire stations both in the weapons testing and in the space areas. At issue is the negotiation of a new labor contract between the Teamsters and the Reynolds Electrical and Engineering Company, the Commission's prime contractor.

In addition, the Dow Chemical Company has rejected the recommendations of the Atomic Energy Labor-Management Relations Panel for certain Saturday and

Sunday shift premiums. The Denver Metal Trades Council, the union involved, has announced that it will strike the Commission's Rocky Flats weapons fabrication plant operated by Dow at Boulder, Colorado, on July 15, unless these recommendations are accepted or other settlement made acceptable to the union.

We are keeping developments in both of these situations under close scrutiny and will give them continuing appraisal from day to day for possible impact on our program.

4. Sale of Steam from the New Production Reactor at Hanford -(Unclassified)

In my last report, I advised that contract negotiations were underway for the sale of steam from the Hanford New Production Reactor to the Washington Public Power Supply System (WPPSS) for the generation of electric power. These negotiations have been completed. However, subsequent to their completion, the Comptroller General advised that Congressional authorization would be necessary before the proposed agreement could be executed. The Joint Committee on Atomic Energy is conducting hearings on this subject today and I will advise you promptly of any further significant developments.

5. Sailing Incidents in the Pacific Test Area (Unclassified)

In the May 3 report, I stated that there was a proposed voyage into the Pacific Test Area sponsored by the Committee for Non-Violent Action, a pacifist organization with headquarters in New York City.

Since that date, two vessels, the "Everyman I" and "Everyman II" have been involved in incidents in violation of Federal court restraining orders. Crew members of "Everyman I" received sentences of thirty days in jail and the crew of "Everyman II" has been released pending a court hearing.

An appeal is pending before the Ninth Circuit Court of Appeals, San Francisco, which alleges that the Government regulation is invalid in that it violates freedom of the high seas, and further that the Government failed to give sufficient notice regarding the test areas.

6. Appearance on "Issues and Answers" - ABC-TV (Unclassified)

I have had a long-standing request to appear on "Issues and Answers" and this has now been scheduled for Sunday, July 22. As you may know, Secretary Rusk was seen on this program last Sunday, July 8.

7. Vacation Schedule (Unclassified)

My present plans are to leave the Washington area on Friday, August 10, on a vacation for the ensuing two-week period. I plan to be back in my office on Monday, August 27. I can, of course, be reached through my staff while I am away.

The proposed tour to the Pacific Test Site, as mentioned in my last report, was made on June 29 through July 1. Commissioner Haworth and I were pleased to have Mr. Bundy with us. In addition to observing the BLUESTONE event, we were briefed on primary aspects of the operations and also visited Johnston Island and received general briefings on the scheduled high-altitude tests. The tour was most informative and I am sure Mr. Bundy has reported to you on his impressions.

Respectfully submitted,

(Signed) Glenn T. Seaborg

Glenn T. Seaborg

The President
The White House

030D

OFFICE DIARY
GLENN T. SEABORG
Chr USAEC, 1961-72
FOLDER-PAGE 19051

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

COPY NO. 15

901199

July 11, 1962

INFORMATION MEETING 175

10:15 a.m., Wednesday, July 11, 1962 - Chairman's Office, D. C.

1. Briefing for CIA Director McCone re Results of Atmospheric Tests.

The Chairman requested the briefing be scheduled for late July or early August. (Betts)

2. Department of State Organization for IAEA Affairs.

The Chairman noted that he had discussed with Secretary Rusk, Under Secretary Ball and Deputy Under Secretary Johnson the matter of appropriate responsibilities for Dr. Smyth.

3. NASA Accelerator Project at University of Virginia.

The Chairman said he had discussed with Dr. Wiesner the NASA project at the University of Virginia and the possible duplication of effort with respect to other accelerators. Dr. Wiesner agreed with some of the critical positions taken but thought the project had gone too far in terms of appropriations, planning, etc. The Chairman said the AEC letter to Congressman Holified on this matter is appropriate for transmittal. (Henderson)

4. Commissioners' July 19 Meeting with the University of Princeton Officials.

The Chairman said that in a recent conversation with Dr. Smyth, he had discussed the early meeting with Princeton officials and Dr. Smyth planned to attend. An additional topic for discussion will be security procedures affecting unclassified research at universities in light of the Commission's discussion of AEC 89/9, Policies and Procedures for Non-Soviet Bloc Alien Guests and Employees, at Meeting 1860. (Henderson)

5. Multi-National Accelerator Project.

The Chairman noted Dr. ~~Smyth's~~ Haworth's recent conversation with Dr. Panofsky regarding Russian interest in the project and said any necessary follow-through should be taken by Dr. Haworth. (Secy)

6. AEC Awards for Classified Scientific Work.

The Commissioners discussed Mr. John Foster's July 2 letter re the Livermore proposal and requested consideration by the General Manager. (Tackman)

CONFIRMED TO BE UNCLASSIFIED
AUTHORITY: DOE-DPC BB 4/2/82
BY R.G. BOGER DATE: Carl Wilson 6/4/82

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GLENN T. SEABORG
Chr USAEC, 1961-72
FOLDER-PAGE 19053

16. Nuclear Power Study.

The Chairman commented on the need for early discussion.

17. Report on Operation of Nuclear Reactors.

Dr. Wilson discussed his conversations with members of the Atomic Industrial Forum and their response to his suggestion re coordinated reporting on operation of nuclear reactors. The Chairman agreed that Mr. Weaver and associates should be invited to discuss the possibility of an AIF contract with the Commission and that the Nucleonics proposal for a contract not be accepted. (Pittman-Vinciguerra)

18. Studies of the Economic Impact of Science.

The Chairman noted that in a recent discussion with Messrs. Webb and Waterman, he had agreed the AEC should cooperate in such studies. (Quinn)

19. Letter to Joint Committee re Elk River Reactor Project.

The Commissioners agreed the letter should be transmitted. (Henderson)

20. Mr. Hoerlin's July 11 Telegram on STARFISH Effects.

Noted. (See AEC 1077/93)

21. Modified Criteria for Third Round Reactor Support.

The General Manager noted the staff is discussing the problem with Mr. Ramey and the Chairman said he had mentioned the matter to Congressman Holifield at a recent meeting.

22. Fiscal Year 1964 Budget Estimates.

The General Manager said he planned to have recommendations to the Commission by September 5. The Commissioners agreed to schedule a preliminary discussion on September 7 and additional consideration during the week of September 10. (Secy)

23. Ching Panel Arbitration of Fire Fighters' Dispute at NTS.

The General Manager said the fire fighters at NTS are back on the job and had accepted the Ching Panel negotiations of the dispute.

PRESENT		DISTRIBUTION
Dr. Seaborg	Gen. Luedecke	Commissioners
Dr. Wilson	Mr. Ferguson	General Manager
	Mr. Henderson	General Counsel
	Mr. McCool	Secretary

W. B. McCool
Secretary

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FOLDER-PAGE 19052

7. Possible Conflict of Interest.

The Chairman noted Dr. Benedict's request and asked for a determination. (GC)

8. Mr. Dick Doan's Letter of July 3 Requesting AEC Participation in IAF Meeting, November, Washington, D.C.

The Chairman noted Mr. Doan's request that a Commissioner represent the AEC in presentation of a paper. The General Manager will review the matter.

9. Geneva Test Ban Negotiations.

The Chairman noted General Betts' and Mr. Kavanagh's memoranda on this matter. In the light of the General Manager's comment re discussions with the Joint Committee, the Chairman said that he and Dr. Haworth should discuss this matter with Mr. Foster. (Secy - Henderson)

10. Chairman's July 9 Letter to Secretary Korth re NAUTILUS Visit to Portland, England.

Noted.

11. Recommendations re Port Entry of Naval Nuclear Vessels.

The Chairman said he had mentioned this matter to CNO Anderson and the General Manager said he would have recommendations for the Commission at an early date.

12. Mr. Townsend's July 6 Letter re Nuclear Fuel Processing and Storage at New York Site.

The Chairman noted the letter has been circulated for review.

13. Mr. Joslin's July 5 Letter re Processing of Dresden Reactor Fuel.

Noted.

14. Draft Letter to the White House re AEC-DOD Nato Survey.

The Chairman noted receipt and the need for early review and transmittal. (Henderson)

15. Commissioners' Luncheon Today with Indian Delegation.

The Commissioners noted the General Manager's memorandum of July 7.

whether there are ways of putting it on a caretaker status by arrangements on the McKinley-Starbird level. He said they should start on the disposition of heavy goods for which there is no interim use.

He thinks we should avoid a big flap to indicate that we are going to stay; but, on the other hand, we don't want to tear out everything by the roots. Bundy asked whether the restriction on Christmas Island as a danger area will be lifted. I said that it probably would by the end of the day, or at least, quite soon. In doing so, Bundy said that we should state that testing in the Christmas area is completed. Another consideration is that we may wish to think of Christmas in relation to the program in Nevada and at Johnston Island, and that we may not want to make a piece-meal announcement. After some discussion, Bundy said that we would say that this phase will be completed. If there is any change he said he will inform us.

JOHNNIE BOY (a 500 T slightly underground cratering shot) went today at Nevada.

I hosted a luncheon at the Mayflower Hotel for M. N. Chakravarti (Administrator), M. Dayal (Staff Engineer) and M. R. Srinivasan (Staff Engineer) of the Indian Tarapur Atomic Power Project. Others present included Moorthi (Economic Minister, Indian Embassy), Aran Ghosh (First Secretary, Indian Embassy), Commissioner Wilson, General Luedecke, Ed Ferguson, Algie Wells, Frank Pittman, Harold Price, Myron Kratzer, Chris Henderson, Carl Thomas (State) and Hal Bengelsdorf. The Indians have decided to buy a General Electric or Westinghouse enriched uranium plant for Tarapur. They want fuel guarantees, plutonium buy-back by the U.S., an AID loan (which is apparently forthcoming), and a fuel lease (apparently not to be granted).

The Commission discussed with Solicitor Kingsley a plan to ask for clarification of, but not fight for, Statute of Limitations as defense in the Phillips Gloeilampenfabrieken and Herb Anderson patent cases.

I was interviewed by Daniel I. Cooper (Executive Director, International Science and Technology) on personal history, the future of nuclear power in the United States, etc., for publication in Science and Technology. Mrs. Davis (wife of the editor of Physics Today) took pictures during the interview.

I met with Ed Brunenkant, who pointed out that he hopes the University of California Radiation Laboratory would accept an assignment to undertake a project in science information jointly supported by the AEC and the NSF. This would involve the study of communication between scientists and between scientists and the general public as well as development of the hardware to handle science information. He is thinking in terms of some involvement of other departments on the campus as well as the Radiation Laboratory. He said that Isadore Perlman and Harold Fidler and John Lawrence seem to favor it, and that Ed McMillan is not sure this is a suitable project for the AEC or the Radiation Laboratory. He said that an arrangement has been made to give some funds--something like $50,000--to Ray Wakerling to take care of some internal problems along the lines of research in library work and communications as a result of these considerations, and he doesn't feel that this takes care of the science end of things. The NSF would like to set this up with Associated Universities or some such place if the Radiation Laboratory isn't interested, but Brunenkant hopes we can work this out. I said I will take this up during my forthcoming visit to Berkeley.

Thursday, July 12, 1962 - D.C.

I saw a short film of the STARFISH shot at the White House Theater with Bundy, Gerald Johnson, Haworth and others.

At 10 a.m. I was interviewed by Lou Agnello (American Chemical Society) for possible publication in Chemical and Engineering News on the single administrator question, how scientist and lawyer commissioners get along, the future of atomic power, the role of scientists in AEC policy, etc.

I talked to Max Isenbergh (Deputy Assistant Secretary of State for Educational and Cultural Affairs), a potential commissioner. He is a lawyer with a lot of experience in atomic energy and the AEC and seems to be a good prospect.

I had a call from John McCone who said that he has a bootleg copy of a letter that Luedecke has sent to Southern California Edison Company indicating that everything is settled on the reactor project except the site and, if that can't be resolved by the middle of September, it is down the drain. He wondered if a word from him would help any if the Commission is still pressing for it. I told him we are still for it and the only reason we are taking the step we are is that we don't want to tie up the money indefinitely. I said the solution for this is tied to the NPR and the action of the House last year in voting this down led the key members of the Joint Committee, particularly Jackson and Anderson, to oppose getting the Camp Pendleton site. The position of private utilities is also a factor. I said this has moved over now to the WPPSS project which is up for debate and which may possibly go to the House. I said I think if the opponents went along with the WPPSS proposal, then everybody would go along on the Pendleton site. John said that he has been for the NPR and if there is anything he can do to help with this he would. I said we knew he has supported NPR and consequently knew he would support WPPSS. If we find there is anything he can do to help we will call upon him.

I talked to Peggy Wheedon regarding my appearance on "Issues and Answers" which is scheduled for July 22nd. Jules Bergman and Bill Lawrence will interview me.

I had lunch at the University Club with Harry Wellman. We discussed the AEC-University of California contract which will be up for renewal on September 1st.

I was interviewed by John Kenton and James Christie of Nucleonics on the AEC single administrator concept, the future of atomic power, the problems of the NS Savannah, etc.

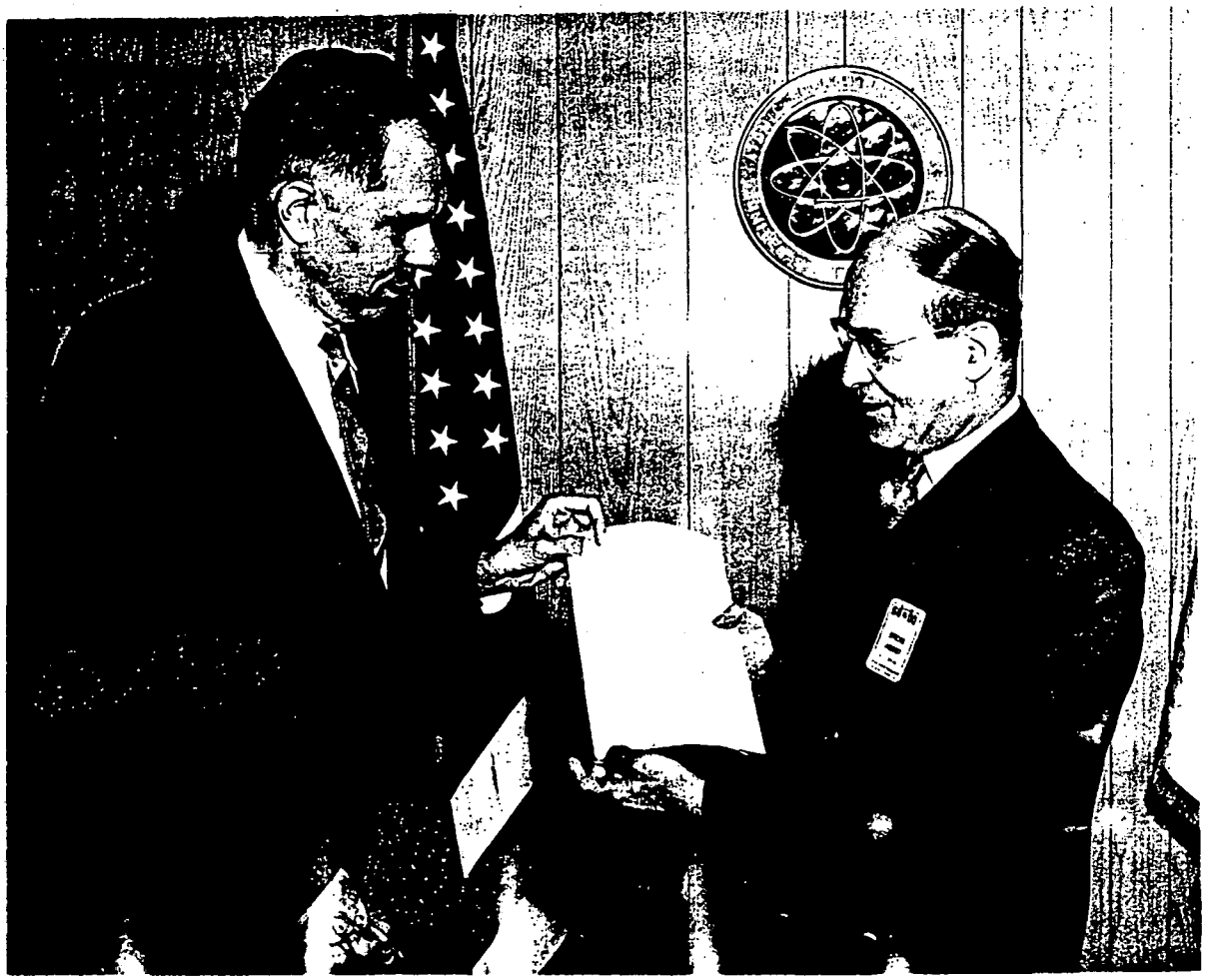
From 3:15 p.m. to 4:25 p.m. I attended a meeting of the National Aeronautics and Space Council in the Vice President's office. Present were: Vice President Johnson, McGhee, Webb, Harold Brown, McNamara, Welsh, Lawrence Kavanau (DOD), Brainerd Holms (NASA) Shea (NASA), Haworth, Robert Hale, Hunter, Dolan and others. Webb and Welsh gave a report on the method of reaching the moon on a manned flight (they have decided to rendezvous in a moon orbit).

At 5 p.m. I presented a letter of commitment (a research grant of $350,000) to Iranian Ambassador Ghoda-Nakhai in a ceremony which was attended by Ahmad Minai (Economic Minister, Iranian Embassy), Algie Wells, Bob Slawson, Carl Thomas (State), Haddad an Blasko (Voice of America), Lynne Seaborg, Karen Wagner (Lynne's Lafayette friend) and others.

Friday, July 13, 1962 - Germantown

At 10:30 a.m. I presided over Information Meeting 176 (notes attached).

I called Larry Hafstad (General Motors) to determine his interest in a position on the GAC. He said he would be very much interested, but he would have to explore the possibility of conflict of interest. He said he would make his decision and call me next week.



Reactor Grant Presentation to Iran, July 12, 1962

Seaborg and Ambassador Hassein Ghoda-Nakai

UNCL. BY DOE NOV 86

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

COPY NO. 13

July 13, 1962

INFORMATION MEETING 176

10:30 a.m., Friday, July 13, 1962 - Chairman's Conference Room A-457

1. Congressman Hosmer's Proposed Bill re Plutonium Prices.

The Chairman suggested Dr. Wilson review the bill with the General Counsel. (GC)

2. Possible Attendance of Dr. Jerome Wiesner at IAEA General Conference, Vienna.

The Chairman said he had invited Dr. Wiesner to attend and requested appropriate discussions with the Department of State. (Wells)

3. Dribble Experiment.

The Chairman noted Dr. Wiesner's interest in the experiment and requested consideration of possible funding. (Betts)

4. July 20 Meeting with Director of the Budget Bell to Discuss FY 1964 Budget Estimates and Long-Range Projections.

The Chairman noted the Commissioners will attend the meeting next Friday and requested preparation of appropriate papers prior to the meeting. (Abbadessa)

5. Letter to the Chairman MLC re Safety Review of LITTLE FELLER I.

The Chairman noted he would send the letter today.

6. Letter to the President re Special Nuclear Materials Production, Proposed Post 1966 Ore Procurement and Stockpiling of Uranium. (See AEC 580/163)

The Chairman noted receipt of Secretary Gilpatric's letter of July 7 re production of materials and requested preparation of an appropriate letter to the President. (Betts-Quinn)

7. Visit of USS ENTERPRISE to Mediterranean Ports.

The Chairman noted the need for early position and the General Manager said it might be possible to take up the question as an ad hoc matter under the proposed new procedures for consideration of such visits.

8. Letter to Secretary of Defense re Transmittal of Information to NATO.

The Chairman noted the Commissioners' concern that the proposed transmittal is not consistent with the provisions of the Statute and requested revision of the letter. (Marshall-Wells)

9. Proposed Press Release on the Iodine Problem.

The Commissioners requested revision of the proposed release for their review. (Clark)

10. July 30 Joint Committee Hearing on the IAEA (Smyth Report).

The Chairman noted that Dr. Haworth will testify.

11. Joint Committee Executive Session Hearing on Permissive Links.

The Chairman said he understood there would be an early hearing on this subject. He noted that the ROVER-SNAP hearings and Senate Appropriations hearings will also be held within the next few weeks.

12. DCA Telegram re Effects of STARFISH Event.

The Chairman requested preparation of a response. (Betts)

13. Chairman's July 12 Letter to Congressman Holifield re WPPSS Proposal on the NPR.

Noted.

14. Congressman Jensen's Query re GAO Ruling on Proposed Contract with WPPSS.

The Chairman noted Congressman Jensen's recent telephone call, requesting a discussion of the GAO ruling and said he would respond after a review of Dr. Wilson's testimony at the hearing on July 9. (Henderson)

15. Chairman's Appearance on ISSUES AND ANSWERS, July 22.

16. Appointment of GAC Member.

Mr. Hennessey reported briefly on his analysis of the conflict of interest matter and the Chairman said he would call the proposed member. (Henderson)

17. Possible Strike at Rocky Flats Plant.

Mr. Block reported on the response by the Dow Chemical Company and the Union to the Ching Panel recommendations and said that as of now, July 15 is the deadline strike date. The Commissioners requested the General Manager to telegraph the parties stating the AEC would not enter the dispute and enjoining further mediation. (Bloch)

18. Letter to Congressman Holified re Proposed Revisions to Authorization Bill Language on Criteria for Third-Round Reactors.

Approved. (Henderson)

19. Amendment to HR 11974 Adopted by Joint Committee on July 12, 1962 (Operation of the NPR).

Noted.

20. Advice to Federal Radiation Council re Criteria for Off-Site Radiation Levels at NTS.

The Commissioners agreed this matter should be carried in the annual report to the FRC and not by separate letter. (Western)

21. Amendment to Agreement with the French for Transfer of Enriched Uranium.

The Commissioners had no objection to the General Manager's proposal. (Wells)

22. Statement re Processing of U.S. Origin Nuclear Fuels by EUROCHEMIC.

The Commissioners had no objection to the proposed statement as clarified. (Wells)

23. Senator Anderson's Query re UK Publication of Information on Nuclear Submarines.

The General Manger said he would discuss this matter further with Admiral Rickover.

24. Appointment of Director of the Division of Plans, Analysis and Reports.

The Commissioners had no objection to the General Manager's proposed appointment and requested further consideration and a report on the organizational placement of the Division. (Tackman)

25. Dr. Wilson's Conversation with Messrs. Schoults and Maher, General Electric, re SENA Reactor.

Dr. Wilson reported briefly the General Electric officials' concern that indemnity legislation had still not been approved by the Congress.

26. Procedures for Review of NS SAVANNAH Port Entry.

The General Manager said this matter would hopefully be completed in the next few days looking to discussion with the Commission on Tuesday, July 17. (Secy)

The General Manager discussed briefly the decision to replace the director of the AEC-Maritime Joint Group.

27. GAC Recommendations on the Advanced Gas Cooled Reactor, Oak Ridge.

The Chairman said this matter should be discussed at an early date. (English)

28. Invitation to Visit the USS ENTERPRISE.

29. Agenda for the Week of July 16.

Approved as revised. (Secy)

PRESENT

Dr. Seaborg
Dr. Wilson
Dr. Haworth
Gen. Luedecke
Mr. Hennessey
Mr. Henderson
Mr. Bloch*
Mr. McCool

DISTRIBUTION

Commissioners
General Manager
General Counsel
Secretary

W. B. McCool
Secretary

* Attendance for Item 17 only.

I called Wilburg C. Munnecke (Vice President, Field Enterprises, Inc., Chicago) to ask if he would be interested in accepting membership on the Commission. He said he would like to think about this and would try to give me his decision on Monday.

Bundy called and said there is a possibility that there may be a strong case for one more very high altitude test; and, while he is reluctant about it, he thinks our public posture should be consistent with this possibility. He has talked with Harold Brown about the rocket problem. I asked him if he would like to attend the IAEA Conference in Vienna the latter part of September. He said there is a good chance that he could do this as he will be in Europe at the time.

Lee White called and said he had a call this morning from Senator Jackson and Congressman Holifield regarding the proposed legislation on WPPSS. They feel that they can make some progress and insure a few additional votes by supporting an amendment which would authorize the WPPSS to negotiate with private utilities on a long-range contract for a substantial portion of the power. White said this looks OK to him, since the government has no desire to control the power once it is generated. I said I agreed and will go along with the amendment.

I had lunch with John Finney in the small conference room. We talked mainly about the implementation of the PSAC Panel (Seaborg) Report, how scientists and lawyers on the Commission get along very well, the possibility of a test ban and other items of interest.

I received a wire from Gritta (Acting President and Secretary-Treasurer Metal Trades Department, AFL-CIO) quoting his telegram to President Kennedy asking him to intervene in the impending strike against Dow Chemical at Rocky Flats. President Kennedy is wiring Gritta to ask him to come to Washington on Wednesday to consult with the Mediation Board.

The President approved my letter requesting approval for STORAX I, the Nevada underground test series for July, August and September.

Saturday, July 14, 1962 - D.C.

I spent the morning in the office working on AEC papers.

In the afternoon the Seaborgs and Peerys had a picnic lunch at George Washington's Grist Mill near Mount Vernon and then proceeded to Alexandria, where we visited Christ Church, Light Horse Harry Lee's home, Gadsby's Tavern and Carlyle House.

The SMALL BOY event (a 1-2 KT above ground effects shot) went today in Nevada at 2:30 p.m., EDT.

Sunday, July 15, 1962

The Seaborgs and Peerys visited various parts of the Smithsonian Institution.

I worked on the speech I will give at the State University of New York on October 26th.

Monday, July 16, 1962 - D.C.

I attended a PSAC meeting where Frank Press described the new interpretation of seismic data extending sensitivity of detection of underground explosions which will have an influence on the Geneva Test Ban Conference. Wiesner described last week's meeting with the British on test detection, permissive links, and general

disarmament. Haworth discussed the AEC Study on Civilian Nuclear Power.

I had lunch with PSAC members at the White House Mess which was followed by further discussion of the Civilian Nuclear Power Study. Don Hornig discussed NASA's decision to put men on the moon via a prior moon orbit, which he and Wiesner disagree with. They think it is not feasible and that Webb made the decision on a political basis.

W. C. Munnecke called and said he has given considerable thought to my invitation to him to think about a possible term with the Commission. Strong personal reasons make him think this would be a bad move for him at this particular time.

Clark and Vicky Johnson (Clark is my first cousin) and children, Carol, Bradley and Glenn, arrived from Downey, California (via Philadelphia and New Jersey), to be our house guests.

The Peerys left today to return to Lafayette. They are making the trip by train.

Tuesday, July 17, 1962 - D.C.

I called Holifield and asked if they are voting on the NPR and he said it is expected to come to a vote today. He said he is more optimistic about this than he was last year. They have made certain changes and now have Hosmer, Bates and Westland for it, but Van Zandt is still against it. He said they have worked very hard on it, and he thinks it will be a tight fight because a lot of people who have been contacted think it is the same proposal as was pushed last year. I told him if they don't vote today I think he will find the lapse of time will be on his side. He said they have put it off so many times he thinks they will go ahead with it.

At 10 a.m. I attended a PSAC meeting to hear a discussion of the report by the Gilliland Committee which is to be an implementing report for the PSAC Seaborg Panel Report (November 1960) on Basic Research and Graduate Education.

I had lunch with Bill Foster and Lee Haworth at the Metropolitan Club to discuss the U.S. and ACDA position at the Geneva Conference which is opening today.

I had a call from Senator Bible who said he has so many complaints from the news media in Nevada regarding the AEC policy of secrecy surrounding the last two shots in Nevada, he called to find out our reasoning. I explained one of these was the SEDAN test which is not classified; however, the problem was not having any place to use for the detonation other than Nevada. Since the shot was partially atmospheric, we used Nevada which placed it in the middle of secret weapons tests, which, by order of the President, have been declared off limits except to a few. He asked me to write a letter along the lines of our conversation which he could pass on to people who have complaints.

LITTLE FELLER I, a DOD atmospheric shot of Davy Crockett with troop participation, went at 1 p.m., EDT, in Nevada.

We received the information that the House defeated, 160-135, the WPPSS version of NPR conversion upon which the AEC, BPA and WPPSS had reached agreement in principle; this seems to kill this conversion project again this year. I passed this information along to Ralph Dungan in the White House.

I sent a letter to Congressman Jensen (copy attached) in response to his letter of June 28th concerning the NPR.

901207

DC FILE

OFFICE DIARY
GLENN T. SEABORG
Chr USAEC, 1961-72
FOLDER-PAGE 19067

JUL 27 1962

Dear Mr. Jensen:

This is in reply to your letter of June 28 concerning the New Production Reactor (NPR) now under construction at Hanford.

We have apparently provided insufficient detail in answering your previous questions. However, I can assure you that we have no intention whatsoever of not being fully responsive to your questions.

Before replying to your specific questions, the answers to which are attached, I feel it would be helpful to review the history of the NPR project briefly. In the spring of 1958, the General Electric Company completed a preliminary study of a number of possible production reactors, and the results of this study were summarized in an AEC report to the JCAE on April 1, 1958. In June of that year, several of these possible reactor types were discussed in hearings before the JCAE, in the course of which, two principal designs were discussed: (a) a plutonium-only reactor, involving relatively low temperatures and pressures, and (b) a convertible reactor involving higher temperatures and pressures compatible with potential future power recovery operations. The convertible design was estimated to cost about $25 million more than the plutonium-only design, principally because of the higher temperature and pressure of the cooling water. Subsequent to the hearings, the AEC was authorized to proceed with construction of the convertible reactor, and no further consideration or study was given to the low-pressure type.

It is important to make clear that the design pressure of the primary coolant system of the convertible NPR has not been changed between June 1958 and the present time. Therefore, the problems and extra costs that have arisen in connection with the primary loop piping have not been the result of revisions in scope of the authorized reactor. It is now clear, however, that there was undue optimism concerning the procurement and fabrication of acceptable high pressure pipe. For example, it was assumed that relatively standard industrial techniques could produce pipe of the requisite quality. As it happened, however, inspection of the pipe produced using these techniques uncovered numerous metal discontinuities and required the development of more stringent manufacturing and testing procedures than originally contemplated. In answer to

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AUTHORITY: DOE-DPC
BY R.G. BOGER DATE 6/2/84
Carlson 6/14/86

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Chr USAEC, 1961-72
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the question "would we have found this problem in a Pu-only reactor", it is not possible to say, since we did not build such a reactor. Pressure conditions should not have been too dissimilar to those in our K reactors, which were constructed in 1955 without difficulty, but temperatures would have been higher because a recirculating primary coolant was specified in the design study. This and many other design features would have been different.

The piping problems mentioned above are occurring in the primary loop. The changes in pressure noted in the first paragraph of your letter are in the secondary loop, which is a separate system. Conventional low pressure boiler house practice is quite satisfactory for handling the secondary loop steam and no difficulty is being experienced in fabrication and installation of suitable pipe.

I would like to emphasize again that it is not really possible to determine what share of the $43 million cost increase is due to the convertibility feature. In the main, the cost increases have resulted from the sort of problems that often arise in building a new design incorporating new technology. We would also have been involved in many of the same or similar problems if the plutonium-only reactor design had been authorized, since that also would have been a new design concept relative to our previous experience in production reactor construction.

Please let me know if I can provide any further information.

Sincerely yours,

(Signed) Glenn T. Seaborg

Chairman

Distribution:
1 & 2 w/enc - Addressee
3 & 4 " - Chairman
5 " - GM
6 " - AGMPP
7 & 8 " - Cong. Liaison
9 " - OGC
10 " - Cons
11 " - Controller
12-14 " - Pd Files
15 " - Lindsey
16 " - Suspense (NPR 3b)

Honorable Ben F. Jensen
House of Representatives

Enclosure:
Information in Answer to Questions

/ CONS 1
see attch.

PI 2553 attch as backup

44

PRR:LINDSEY:acs P:DIRECTOR OGC CONG. LIAISON AGMP

7/13/62

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INFORMATION SUPPLIED IN ANSWER TO QUESTIONS

Answer to an Unnumbered Question

Q. Will you please furnish me with a breakdown of the eight items shown for the $43 million increase, so as to show how much of each relates to the September 1961 increase of $20 million and how much of each relates to the February 1962 additional increase of $23 million?

A. With respect to the estimated $43 million increase in the cost of the HWR, the following table shows the breakdown between the estimates made in September 1961 and in February 1962:

Breakdown by Functional Elements of the
$43 Million Increase Cost of the HWR Project

	$ Million		
	Increase* 9/61	Increase 2/62	Total
Piping	1.9	9.5	11.4
Instrumentation	1.1	2.0	3.1
Miscellaneous	4.8	1.5	6.3
Estimated Change Order Allowance	7.0	0.0	7.0
Indirect Construction Costs	2.5	3.4	5.9
Engineering Costs	3.3	2.2	5.5
Project Startup Costs	0.0	2.0	2.0
Contingency	-0.7	2.5	1.8
TOTAL	19.9	23.1	43.0

Answers to the Numbered Questions

1. Piping

Q. Is the entire $11.4 million increase for the primary coolant piping? If not, how much?

A. The increase is due to the following:

Nozzle Assembly	$ 555,000
Connectors	1,136,000
Primary Piping	9,720,000
TOTAL	$11,411,000

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*The increases shown herein for 9/61 represent changes from an estimate prepared in January, 1961, at which time the reactor cost was still estimated at $145 million.

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Q. It has been indicated that the considerable increase in temperature and pressure required for the contemplated convertibility was primarily responsible for the increase in cost of the primary piping system. Is this true?

A. The convertible reactor was designed from the start to operate at higher temperature and pressure than would have been the case in a non-convertible reactor. No change has been made in the design pressure of the primary loop since authorization of the convertible design in 1958. Therefore, the problems and extra costs that have arisen in connection with the primary loop pipe have not been the result of revisions in scope of the authorized reactor. A large part of the $11.4 million cost increase is due to difficulties in procuring suitable high pressure pipe. However, I feel it would be equally appropriate to ascribe a portion of the cost increase to earlier estimating errors and technical optimism, as to the fact that the reactor is convertible. Had the designers and procurement people fully recognized at the outset the technical problems which have had to be solved, the cost estimate would have been somewhat higher, but considerably less actual expenditure would have been involved than is now expected, since pipe rework and construction schedule changes could have been avoided.

The primary loop will be subject to high stresses during reactor operation, and requires the use of heavy wall pipe. Generally accepted, non-destructive methods of testing the pipe during its production were used, and a considerable portion of the piping had been manufactured and accepted on the basis of these testing methods. However, these procedures proved to be inadequate as minute, previously undetected cracks were observed when the pipe was being prepared for prefabrication into assemblies. New specifications, involving destructive testing of selected samples, and revised manufacturing procedures had to be developed in order to assure suitable pipe for safe operation of the NPR. The vendors have now demonstrated their ability to produce piping of the required quality, and current pipe manufacture is on schedule.

Q. Was any of the NPR piping fabricated and/or installed before it was determined that such piping would not be satisfactory? If so, to what extent?

A. A considerable portion of the pipe had been manufactured, but very little had been prefabricated into assemblies and none had been installed in the project at the time it was determined that more stringent specifications had to be applied. Most of the off-specification pipe can be repaired.

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2. Instrumentation

Q. What was the primary reason for the $1.3 million increase in instrumentation?

A. The initial estimate was based, necessarily on incomplete design. As detailed design progressed, the complexity of the project was more fully realized. This resulted in instrumentation requirements at higher cost than had been expected. A smaller portion of the increase has been due to premium labor to meet the construction schedule.

3. Miscellaneous

Q. Can you give some detail on just what is included in the $6.3 million increase shown under this heading?

A.

	$ Million		
	Sept. 1961 Increase	Feb. 1962 Increase	Total Increase
a. Reactor			
Moderator, Thermal Shield, Auxiliary Process Piping, Electrical System Power, Equipment Usage	$2.2	$0.0	$2.2
b. Reactor Building			
Structural, Pressure Relief System, Other Miscellaneous Equipment	2.1	0.5	2.6
c. Filter Stack	0.1	0.0	0.1
d. Heat Dissipation Facilities			
Heat Exchangers, Primary Loop Auxiliary System, Pump House, Heat Exchanger Bldg., and Equipment Usage	-0.6	1.0	0.4
e. Auxiliary Facilities			
Auxiliary Facilities, Yard System & Electrical Plant	1.0	0.0	1.0
TOTAL	$4.8	$1.5	$6.3

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Question 4 and Question 6

Since the answers to these separate questions are closely related, they are answered together as follows:

4. Estimated Change-Order Allowances

Q. Will you describe in some detail just what change orders were necessary at a cost of $7.0 million?

6. Engineering Costs

Explain in some detail just what additional engineering was necessary at a cost of $5.5 million.

A. Within the first year after the project started, the General Electric Company determined that some redesign was necessary in order to provide certain additional conservatism to increase assurance of technical performance of the reactor. This included substantial modifications to the reactor itself and additional cooling capacity. Since this redesign resulted in an increase in estimated cost, further redesign of auxiliary facilities was undertaken in an attempt to stay within the previous project cost estimate. The redesign was substantial and resulted in delays which in turn could affect the overall construction schedule and cost. In order to reduce the effect of these delays, fixed-price construction contracts were let based on incomplete drawings so that construction start would not be delayed. On such complex facilities it is normal to expect that there will be design changes resulting in change orders in the course of execution of construction contracts. However, on the NFR, as construction and the detailing of the incomplete drawings proceeded concurrently, the effect of such detailing resulted in many more change orders than had been anticipated.

Q. (4) Had there been any actual fabrication, construction or other work done which has had to be changed, torn out, or replaced?

A. Nothing of substantial nature. With the exception of the piping discussed elsewhere, such rework was confined generally to several pipe expansion joints damaged after installation by subsequent construction operations, and minor rearrangements and rework to correct deficiencies and conflicts, such as jack-hammering concrete for installation of small pipes, drains, electrical conduits and equipment anchor bolts. This rework experience has not been of abnormal quantity for a job of this magnitude.

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Q. (6) What is total engineering cost for the NPR and what total fixed fees are included?

A. The total estimated engineering cost for the NPR is $19,500,000, essentially 10% of the total estimated construction cost. Fees are $529,000.

5. Indirect Construction Costs

Q. What is covered by this item of $5.9 million? Give details.

	$ Million		
	Sept. 1961 Increase	Feb. 1962 Increase	Total Increase
Management Services*, Overhead and Fee	$0.9	$3.0	$3.9
Temporary Construction	0.7	0.2	0.9
Other Distributed Construction Costs	0.9	0.2	1.1
TOTAL	$2.5	$3.4	$5.9

* Covers following construction accounts:

Field Supervision
Warehouse Administration
Handling Materials
Construction Management
Purchasing and Expediting
Field Engineering
Non-Manual Services
General Office Services
Miscellaneous

Increases are due to extending overhead costs over the longer construction period, more extensive expediting and intensified engineering liaison and inspection in connection with fabricated equipment.

7. Project Start-up Costs

Q. Why is $2.0 million additional needed for this purpose? What is total for the project?

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A. The total allowance of this item is $2 million, which was not included in previous estimates. By early 1959, this contingency had been substantially reduced. The January 1961 estimate included a contingency of $3.7 million. In view of the complexity of this piping system, the need for such correction must be anticipated. In addition, funds from this allowance will be used for the correction of any other troubles arising during the startup tests. Deficiencies in such systems as instrumentation and controls can be expected in a reactor as large and complex as the NPR.

8. Contingency

Q. What contingency figure was included in the original $145 million estimate?

A. An estimate of $13,800,000 was included in a letter transmitted to the JCAE on June 23, 1958. By early 1959, this contingency had been reduced essentially to zero.

At 5:30 p.m. Ann Ewing called to tell me that I received a patent on the method of preparing element 95 (americium). This was a surprise since the application was filed about 1946. The patent number is 3044944.

Wednesday, July 18, 1962 - Germantown

I gave the introductory remarks at a meeting of people involved in the ROVER program. The meeting was called to investigate the bottlenecks to keep the program on schedule.

There is a serious possibility of a teamster strike (which could lead to other strikes) at the Nevada Test Site. The difficulties center around peripheral items such as travel pay, portal to portal pay, etc.

I worked with Commissioners Wilson and Haworth and Frank Pittman on the Civilian Nuclear Power report which is due at the White House on September 1st. This report is behind schedule and needs to be speeded up.

I mailed draft copies of my high school book on Man-Made Transuranium Elements to Perlman, Hyde, Cunningham, Thompson and Katz for their review.

Secretary Rusk called to ask if we are working on a project for utilization of nuclear energy in connection with heat from sea water. I told him we are not; that we have had a number of starts on such projects but they are just too uneconomical. I explained that nuclear energy for this purpose is no better than heat from the cheapest possible source; and, in the amounts needed in the types of projects so far considered, it is not competitive. However, on the far horizon, we are thinking about a tremendous project in the range of millions of kilowatts at which point nuclear energy begins to look good.

I said at one point we did have a joint project with Interior whereby they were to use our Oak Ridge Laboratory on such a venture and it almost got under way before we realized how uneconomical it would be. He then asked if at this moment we are working on solar heat. I told him we are not.

Secretary Goldberg called with regard to the labor trouble at our Rocky Flats installation. He said he thinks Dow is playing games with us. He furnished Dow with the letter they are requesting covering the following two questions: 1. should we accept, and 2. if we do accept, how can we be safeguarded against the same kind of happenings at our other operations. He said, if the Union does not accept the Panel's recommendation, they feel they will have to invoke the Taft-Hartley Law. He said that actually Dow doesn't complain about the economics of the Panel recommendation; that the arbitration is not compulsory, but he feels our people should talk to Dow before the meeting of Dow with the Labor Department representatives tomorrow. I told him we will try to arrange this.

Lou Agnello of Chemical and Engineering News called me and asked if I wish to comment on the New York Times article (copy attached) in which reference is made to a budget difference in renewal of contracts with the University of California for running three of the national laboratories. I told him there is no "difference" on running the California laboratories--there is a unanimous position on that. Replying to another question I said there is a difference over the matter of a fee for the University of Chicago, explaining that the University has requested an increase in the allowance for direct and indirect costs, from $600,000 to what they think is the actual $1,600,000 level. The Commission compromised on a figure of $1.2 million, which the University thinks is too small. It seems to me that some of the Commissioners think that is too high. It was, therefore, a compromise. Lou quoted the Times article about the University of California contract. I said the

2 NON-SCIENTISTS SOUGHT FOR A.E.C.

2 Lawyers Depart, Leaving 3 Specialists in Control—Successors a Problem

By JOHN W. FINNEY
Special to The New York Times.

WASHINGTON, June 30—The resignation of the two lawyer members of the Atomic Energy Commission, effective today, leaves the vast atomic energy program under the complete control of scientists for the first time.

In seeking replacements for Commissioners John S. Graham and Loren K. Olson, the two lawyers, Administration officials believe that it is important to continue a counterbalance to the scientific majority. The expectation is that both vacancies will be filled by non-scientists.

The search for candidates, however, is being complicated by the Administration's intention to press in the coming year for replacement of the five-man commission with a single administrator. As can be expected, few of the individuals approached have expressed much enthusiasm for coming to Washington to take a job that may be abolished before a year is out.

When it took office, the Kennedy Administration was determined that more scientists should be raised into policy-making positions, particularly in such research agencies as the Atomic Energy Commission.

One of its first moves in this direction was to appoint Dr. Glenn T. Seaborg, a Nobel laureate in chemistry, as chairman of the commission. A few weeks later, Dr. Leland J. Haworth, a physicist who headed the Brookhaven National Laboratory on Long Island, was named a commissioner.

The two appointments gave scientists a majority on the commission. The third member of this majority was Dr. Robert E. Wilson, an Eisenhower appointee.

Dr. Wilson was formerly chief executive officer of the Standard Oil Company of Indiana, but as a former associate professor of chemical engineering at the Massachusetts Institute of Technology, he takes pride in being counted as a scientist member of the commission.

Never before had the scientific community gained such control over the civilian agency, which it was so influential in creating in 1946. By tradition, although not by legal requirement, there had always been a scientist on the commission. Except for a brief period in 1956, however, there had never been more than one scientist at any one time.

Discord Evolved

As is now being acknowledged within the Administration, this experiment in scientists' majority control over a Government agency with a $2,500,000,000-a-year budget has not been completely effective.

For the last six months the work of the commission has become bogged down in a division, sometimes personally acrimonious, between the scientist and lawyer factions.

In fact, one of the reasons for the resignation of the two lawyers was a growing feeling of frustration over constantly being in the minority when decisions were made.

Underlying the division was a clash of philosophies between the two professions—between scientists and their dedication to the pursuit of scientific truth, and lawyers and their dedication to the principle of a government of laws.

Illustrative of this clash of philosophies was a dispute that went on for months over renewing the contract with the University of California for running three of the commission's national laboratories.

Controls Debated

The scientists argued that in line with the principle of freedom of scientific research, a minimum of controls should be imposed on the university. The lawyers contended that if the commission was [illegible] to give the university $500,000,000 a year, the Government should exercise tighter controls over how the university and laboratories spent the money.

Another illustration was the debate last fall over the size of the commission's budget for the coming fiscal year. The two lawyers fought against any increase in the budget. The scientists are reliably reported to have expressed amazement that the lawyers should question the proposition that an ever increasing amount of money should be spent on scientific research.

In the arguments within the commission, the two lawyers formed an effective legal team of counselor and advocate. Mr. Graham, a slow-speaking, story-telling North Carolinian, was the counselor; Mr. Olson, an energetic, fighting Minnesotan, the advocate.

In these contrasting but complementary roles, the two lawyers made a significant impact upon commission policy.

As a man who pridefully views himself as a politician as well as lawyer, Mr. Graham has served as the political peacemaker between the commission and the often hostile Joint Congressional Committee on Atomic Energy.

One of his first acts after being appointed in 1957 was to have the commission and committee members sit down at a chicken dinner in the Metropolitan Club in a partly successful effort to heal the breach that had developed between committee Democrats and Lewis L. Strauss, who was then chairman of the commission.

In a quiet, deliberate way that attracted little public attention, Mr. Graham also seized upon certain policy issues and over a period of years was successful in winning the commission and the Executive branch over to his position.

One of his particular concerns was the safety of atomic weapons and reactors. He succeeded in bringing about a gradual tightening of the safety procedures. In alliance with Vice Admiral Hyman G. Rickover, for example, he was able to prevent the Navy from taking over the control of the safety procedures for operation of atomic submarines.

philosophies were right--that is the way the scientists and lawyers think. The contract was by one of the lawyer Commissioners--that is, the critical parts were revised by one of the lawyers and agreed to by the scientists.

He again quoted from the article about the budget debate and I said it is overstated. The lawyers questioned the need for an increase in some of areas. It ended with a unanimous vote. I explained that these items were taken up at Commission meetings where everyone was pretty much in agreement. However, once in a while there is a split vote but I do not recall a split vote in this case and would have to look it up. He asked if I feel the scientists have a different outlook on management from the lawyers and are freer with funds on scientific matters. I said I would not use the word freer; they may have more feeling for basic research than the lawyers, but I feel they are pretty careful not to overdo it and are able to draw the right line between what should be done and what a sensible budget should be. That is, a budget in line with what our economy and nation can afford.

Another point he asked about was the statement in the article, "For the last six months the work of the Commission has been bogged down in a division, sometimes personally acrimonious, between the scientific and lawyer factions." I said that is completely incorrect. He again quoted from the article, "..as is now acknowledged within the Administration, this experiment..." and I said I do not think the Administration feels this way; in fact, I am quite sure it does not. He thanked me and said he feels I have answered his questions. I inquired if he is using this as background information for the article about the Commission, and he replied that in a sense he is, but on the three different areas about which we have spoken, leading to the resignations of the two Commissioners and my views, and the rumors about my resignation. In reply to my question if he intends to refer directly to the Times article, he said he is planning to do that. I told him I think it would be better not to do so in Chemical and Engineering News. He said he will work something up and try to get it to me on Thursday so that I can make corrections or changes.

Attached is memo from Ferguson re Everyman I.

At 5:10 p.m. Phillips Talbot (Assistant Secretary of State for Near Eastern and South Asian Affairs) called about the meetings between AEC personnel and Indians of the Tarapur project. He wanted me to know that AID is examining this project also. He is concerned about AEC discussion of funding and wants to warn us that AID's funds are limited. I told Talbot our discussions were not supposed to involve funds but I would be alert to this concern. I also mentioned that there are other conditions, including safeguards, on which our people are instructed not to give ground.

Thursday, July 19, 1962 - D.C.

I met with Ralph Dungan at the White House and recommended Max Isenbergh and Howard Brown for commissionerships.

At 11 a.m. I attended a meeting of the Net Evaluation Committee at the Pentagon to hear a report on this year's project by Air Force General Johnson. Others present were: McDermott (OEP), McCone (CIA), Whitson (FBI), and John F. Doherty (Interior Committee on Internal Security).

Commissioners Wilson, Haworth and I, along with staff, had a luncheon meeting with Harry Smyth, Professor R. J. Woodrow, M. B. Gottlieb and Lyman Spitzer of Princeton to hear their case for AEC support of tenure faculty (long-term) on the plasma physics program. I was sympathetic but indicated that an answer will have to wait for the determination of a government-wide policy.

At 3:15 p.m. I presided over Commission Meeting 1862 (action summary attached).

GT FILE
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NOV 86.

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

July 18, 1962

MEMORANDUM FOR CHAIRMAN SEABORG
COMMISSIONER WILSON
COMMISSIONER HAWORTH

THROUGH THE GENERAL MANAGER

SUBJECT: EVERYMAN I

Late yesterday Mr. Waterman, the attorney in the Department of Justice handling the EVERYMAN cases, called to say that he had a request from the United States Attorney in San Francisco that he be authorized to seize the EVERYMAN I under a statute empowering confiscation of ships used by persons preparing to commit an offense against the United States. Mr. Waterman wanted to know our reaction, he being inclined not to authorize the U. S. Attorney to seize the boat because of the imminent cessation of the test series.

We advised Mr. Waterman today that we felt strongly that even if authorized by the statute the boat should not be seized, not only for the reason he stated, but because we thought such an action was not warranted as an enforcement measure and because of the possible repercussions and adverse publicity that would result.

Edwin E. Ferguson
Acting General Counsel

D. C. Files

OPTIONAL FORM NO. 10
5010-104

UNCL. BY DOE
NOV 86

UNITED STATES GOVERNMENT

Memorandum

TO : A. R. Luedecke, General Manager

DATE: July 20, 1962
(Revised July 23, 1962)

Approved _____
A. R. Luedecke

FROM : W. B. McCool, Secretary Original signed W. B. McCool

Date 7/24/62

SUBJECT: ACTION SUMMARY OF MEETING 1862, THURSDAY, JULY 19, 1962, 3:15 P.M., ROOM 1113-B, D.C. OFFICE

SYMBOL: SECY:WLW

Commission Business

1. Proposed Procedures for Review of N.S. Savannah Port Entries

Discussed.

The Chairman requested that if the criteria for port entry are published they should be identified as applying only to interim port operations. (Pittman)

The Commission requested revision of the criteria to point out that average reactor power will be restricted to 50% for 10 hours before the ship enters the port area. (Pittman)

Commissioner Wilson requested the identity of the authorizing group responsible for approving the operation of the N.S. Savannah in ports be clarified. (Pittman)

The Commission requested clarification of total population exposure in the basic criteria (paragraph 1 c of the Draft Request for Authorization). (Pittman)

2. Minutes of Meeting 1855

Approved, as revised.

3. AEC 25/208 - Proposed Navy Safety Rules

Approved. (Betts)

4. AEC 289/38 - Proposal of Edgerton, Germeshausen and Grier, Inc.

Approved, as revised.

The staff noted that a more detailed letter had been prepared to the JCAE. (Naiden)

5. AEC 811/104 - Plowshare Program (Project Chariot)

Approved, as revised. (Kelly)

6. AEC 132/55 - Periodic Report to the Commission by the Division of Inspection

Noted.

Other Business

1. Add-On Physics Experiment in Storax I

The Commission requested consideration of the inclusion of an Add-On Physics Experiment in Storax I. (Kelly)

2. Possible Strike at Dow Chemical Company, Rocky Flats

The Commission requested Dow be urged to accept the recommendations of the Conciliation Panel. (Smith)

The Commission approved standards for the NS Savannah visits to U.S. ports which will be presented to the ACRS next Wednesday. The Commission decided to put Project CHARIOT (Plowshare) in a standby status (but not abolish it) in view of SEDAN and proposed followup shots in Nevada.

Friday, July 20, 1962 - D.C.

I had a call from Dr. Eugene Fubini (Office of the Secretary of Defense, Research and Engineering) who is concerned with the possibility that the URRACA shot may severely interfere with TELSTAR, even to the point of demolishing it. He asked if someone in AEC could talk directly with the TELSTAR people. I told him we will carry it from here.

I called Wiesner to ask him if he thinks we should make a general well-timed statement to the public covering the results of the tests. He said he thinks we should do so but only after a thorough internal review. I told him I think this should be done fairly soon, because on March 2nd the President gave his candid opinion on testing and now the press is beginning to push on whether the tests were really necessary. We are now in the process of review and will have information for the press.

At 9:40 a.m. I presided over Information Meeting 178 (notes attached).

At 11 a.m. I met at the State Department with Harlan Cleveland, Walter Whitman, Smyth, Wells, Thomas, Stanger and Skolnikoff (Wiesner's representative), to discuss further the implementation of the Smyth Committee report (summary attached on May 24, 1962) on the IAEA. We decided to have 1. an ad hoc group, augmented by people from Fowler Hamilton's AID office, study the Committee recommendation that the U.S. support construction of reactors in underdeveloped countries as an instrument of foreign policy, and 2. to draw up a written plan, for comment, on bringing the IAEA in as a third partner to U.S. bilaterals to administer safeguards.

At 2:30 p.m. Commissioners Haworth, Wilson and I, accompanied by General Luedecke, Howard Brown, Spof English and John Abbadessa, met with BOB Director David Bell and his staff in Bell's office at the E.O.B. to discuss the FY 1964 budget. BOB suggests a level well below the AEC submission which we, in many instances, tried to get them to raise.

Secretary Goldberg called to thank me for my cooperation in the negotiations between Dow and the unions. The Panel recommendation was accepted and everything is fine. He said the President is also pleased with the outcome and appreciates our cooperation.

We had as dinner guests, (the Johnsons and Karen Wagner), Hilma Howser (my mother's cousin), Louise (Hilma's daughter) and Robert Price and their children, Marianne and Roberta, Hilma's daughter Adelaide and husband Jack Gittins and Esther Arnott. We looked at movies and heard a tape recording by Farfar (my father).

Saturday, July 21, 1962 - D.C.

I spent the morning in the office.

We had a picnic lunch with the Clark Johnsons at the picnic ground on Mt. Vernon Highway just south of Alexandria. We then visited the George Washington Masonic National Memorial, the Stabler-Leadbeater Apothecary Museum, a Presbyterian meeting house, a grave of an unknown Revolutionary War soldier, and an old cobblestone street unchanged since the 18th century, as well as other old landmarks, all in Alexandria.

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

UNCL. BY BOB
NOV 86

COPY NO. 13

July 20, 1962

INFORMATION MEETING 178

9:40 a.m., Friday, July 20, 1962 - Chairman's Office, D. C.

1. Interaction of Telstar and URRACA.

The Chairman said Mr. Fubini, DOD, had telephoned him and suggested AEC discuss this matter with Mr. Dickinson (Telstar representative). (Betts)

2. Management Planning for SNAP-50 Systems.

The Chairman commented that in light of BOB comments on FY 1964 budget estimates, the AEC should take the initiative in management planning. The Commissioners requested early consideration of the proposal discussed by the General Manager. (Pittman)

3. Summary Results of Operation DOMINIC.

The Chairman requested preparation of a summary technical report. (Betts).

4. NASA Annual Space Program Review - 8:30 a.m. - 1:00 p.m., Saturday, July 21.

The Chairman noted the invitation and his conflicting commitments. Commissioners Wilson and Haworth will attend and suggested that Dr. Pittman might wish to accompany them.

5. Discussion of AEC Nuclear Power Reactor Study with Joint Committee and Others.

The Chairman noted the desirability of early discussion of the study with the Joint Committee, the Bureau of the Budget and Senator Anderson's National Fuels and Energy Study Group. Dr. Haworth said he would arrange to personally review the study with Joint Committee staff.

6. Discussions of Tarapur Reactor Project.

The Chairman said Assistant Secretary Talbot, Department of State, had telephoned him to discuss AEC encouragement of the representatives of India re U.S. support of the Tarapur project. The Chairman said he had responded that to his knowledge Commission representatives had emphasized the safeguards, funding, and other requirements as agreed in prior discussions with the Department of State.

7. Chairman's Morning Meeting with Assistant Secretary Harlan Cleveland, Department of State, to Discuss Interagency Subgroup Report on Ambassador Smyth Report on the IAEA.

8. AEC 1095/6 - Long-Range Plan and Associated Policy Issues.

The Chairman commented on the study and suggested review for later discussion. (Henderson - Secy)

9. Review of Government Space Program.

10. Lightening Damage to IRBM Installation in Italy.

The General Manager made a preliminary report of the incident.

11. Plans for Project DRIBBLE.

The Chairman noted the Howard Simons' Washington POST article today, discussing the proposed experiment and suggested some reference be made to funding plans in the discussion with the BOB this afternoon.

12. Negotiations with Dow Chemical Company.

The General Manager reported that it appears that the company will accept the panel's recommendation for settlement.

13. Agenda for the Week of July 23.

Approved. (Secy)

PRESENT		DISTRIBUTION
Dr. Seaborg	Gen. Luedecke	Commissioners
Dr. Wilson	Mr. Ferguson	General Manager
Dr. Haworth	Mr. Henderson	General Counsel
	Mr. McCool	Secretary

W. B. McCool
Secretary

Clark Johnson family
visiting at the Seaborg
Washington home,
July 21, 1962

L to R: Bradley, Carol, Vicky
(holding Glenn) and
Clark Johnson

Sunday, July 22, 1962

I worked on AEC papers.

At 4 p.m. I appeared on "Issues and Answers" (ABC-TV Channel 7 and WMAL radio) with Jules Bergman and Bob Lodge (transcript attached). The result of the Russian decision to resume atmospheric testing was one of the main issues. Clark and Vicky Johnson accompanied me to the TV studio.

Helen and I attended a dinner given by Mr. and Mrs. Robert Wilson at the Westchester for Sir Roger Makins, Sir Claude Pelley, and Sir Solly Zuckerman. Others present were John McCone, Mr. and Mrs. Jerry Johnson and Mr. and Mrs. William Martin (Federal Reserve Board).

Dan Wilkes arrived from California today.

Monday, July 23, 1962 - D.C.

At 9:30 a.m. I attended a stock-take meeting (an exchange of weapons information) with Sir Roger Makins, Sir Claude Pelley, Sir Solly Zuckerman, and others from the U.K. Also present were John Foster, Jane Hall (both of whom gave reports on the results of U.S. weapons tests), Commissioner Wilson (who acted as Chairman), Commissioner Haworth, General Betts and others.

I had lunch with Dan Wilkes and Chris Henderson to talk about my forthcoming IAEA speech and other matters.

I attended a stag dinner at the Mayflower Hotel hosted by Commissioner Wilson for the participants of the stock-take meeting. Ambassador Ormsby-Gore and General West (U.K.) also attended.

The Clarence Johnson family left today by train to return to Downey, California.

At 3 p.m. I saw the first scheduled TV broadcast to Europe via Telstar (a presidential news conference, Mt. Rushmore figures, San Francisco and New York scenes, a Chicago baseball game--Cubs vs. Phillies--plus other items of interest). At 6 p.m. I saw the first Telstar broadcast from Europe to the United States (the Cern Laboratory, the Rome Coliseum, a Swedish scene above the Arctic Circle, and scenes from Paris, London, Germany, etc.).

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PLEASE CREDIT ANY QUOTES OR EXCERPTS FROM THIS ABC RADIO AND TELEVISION PROGRAM TO "ABC'S ISSUES AND ANSWERS."

I S S U E S A N D A N S W E R S

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SUNDAY, JULY 22, 1962

GUEST: Dr. Glenn T. Seaborg
Chairman, Atomic Energy Commission

INTERVIEWED BY: Jules Bergman, ABC Science Editor
and
Robert Lodge, ABC Defense Department Correspondent

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~~THE ANNOUNCER: From Washington, D. C.,~~ the American Broadcasting Company brings you ISSUES AND ANSWERS. With the answers, Nobel Prize-winning scientist, Dr. Glenn Seaborg, Chairman of the Atomic Energy Commission, one of the most important jobs in the world.

Dr. Seaborg, here are the issues.

QUESTION: What does Russia's resumption of nuclear testing mean to the United States?

QUESTION: Who has the advantage now in nuclear weapons?

QUESTION: Can we detect all nuclear explosions?

QUESTION: Have we improved our weapons technology in the current test series?

THE ANNOUNCER: To interview Dr. Seaborg here is ABC Defense Department Correspondent, Robert Lodge, and with the first question, ABC's Science Editor, Jules Bergman.

MR. BERGMAN: Dr. Seaborg, why do you feel Russia is resuming nuclear tests, and why do you think Moscow called these new tests a step it was forced to take.

DR. SEABORG: I suppose Khrushchev wants the last word and I suppose it is in part sort of in retaliation for the American series. But further than that I feel that Russia, Khrushchev and the leaders have a genuine concern, they feel their security demands it. That they are afraid we may have obtained in our tests results that would make the future dangerous for them.

That is one of the difficulties in this testing business. I think it is a symetrical situation. Each side is afraid of the other, that the other has been getting ahead in the test series and that is what makes it so difficult to call an end to it.

MR. BERGMAN: Dr. Seaborg, U.S. scientists I have talked to feel the Russians tested new weapons concepts last fall,

went back and designed the actual weapons and are now ready to test the weapons. Do you agree with that?

DR. SEABORG: Yes, to some extent. It is a little short. Let's see, they ended their test series on November 4 of last year so this is some eight months later. I would be inclined to think also that they are concerned about the effects, the defense against nuclear weapons, perhaps they are especially concerned about that, the development of anti-missile missiles, nuclear warheads for this purpose, the effects of nuclear warheads on in-coming weapons and on communications and radar and so forth.

MR. LODGE: Dr. Seaborg, who do you feel is ahead in nuclear weapons technology as of today?

DR. SEABORG: Well, this is a very complicated question and I am afraid it demands a rather -- requires a rather complicated answer. And it is very difficult to be precise on this because the matter of who is ahead is an indefinite concept. It has to do with the numbers of weapons, the numbers of tactical weapons, the numbers of strategic weapons, nuclear weapons technology in both of these areas, methods of delivery of these weapons and methods for defense against the weapons.

So that it is very difficult to give what I would call a precise answer with any meaning. I think that in the aggregate, taking into account the complexity of the question,

that the United States is still ahead. That would be my assessment.

MR. LODGE: You say you think the Soviets are concerned about the effects of nuclear explosions on particular anti-missile missiles. You don't apparently go along then with the statement by Premier Khrushchev -- several statements -- that they have an anti-rocket that could hit a fly in the sky?

DR. SEABORG: Hit a fly in the sky as far away as the moon or something like that.

No, I don't think so. I think that statement was overdrawn. That was an exaggeration of their capability.

MR. BERGMAN: Well, Dr. Seaborg, do you feel the United States can keep the lead we apparently have in nuclear weapons, with this new Soviet test series?

DR. SEABORG: Can we keep the lead with this new test series?

MR. BERGMAN: Will this new test series project them ahead of us in nuclear weapons superiority?

DR. SEABORG: Well, I don't know. I would have to say I don't know the answer to that. We will have to watch the series, make our analyses of the individual tests as we did last fall, and then make an assessment taking into account the advances that we have made in our own series, and of course all this against the background of the advances that the Russians made in their series last fall. This will be their

second series, of course, since the moratorium.

MR. BERGMAN: But as of now in your estimation with our series now about two-thirds through, you feel we are ahead?

DR. SEABORG: We are ahead in this complication situation that I just assessed for Mr. Lodge, taking into account all the factors and realizing that one can not be very precise in assessment that involves so many factors. Actually one would need to analyze it factor by factor. But in the aggregate I would say Yes, we are ahead.

MR. BERGMAN: Now I assume just as we analyze their tests they have been busy analyzing our tests, and there have been reports of Soviet submarines and stuff off Island and Johnson Island and Christmas Island.

Do you think the new tests may have been triggered by what the Russians have already learned about our Pacific test series?

DR. SEABORG: I doubt that they have finished their analysis of our tests by now. This was certainly a factor. I would think, however, that once we announced the resumption of atmospheric testing and began atmospheric testing they probably made their decision soon thereafter. It was probably then only a matter of when -- the time that was most to their advantage, and I suppose they would regard this rather -- or in the near future a rather advantageous time

from that point of view, from the standpoint of world opinion, to start their tests and carry it as far as they can while we are still testing or at least while people remember that we have been testing recently.

MR. LODGE: Dr. Seaborg, we have asked the Soviet Union to continue negotiating on a nuclear test ban treaty. Do you feel if after this upcoming series of Soviet tests, acceptable terms for a test ban treaty could be found that would be agree able to both sides that we could go along without testing again that we could afford to let Russia test last?

DR. SEABORG: This would depend upon the assessment of the Russian tests, a comparison of their position with our position. We haven't completed the assessment of our tests yet. And weighing that against the strong desire of the United States to put an end to this business, to find a satisfactory test ban, a ban that will insure that neither side is in fact testing, it will be an assessment between those factors: a strong desire on our part to put an end to this business, weighed against our national security with respect to the relative positions and the kind of test ban treaty that it seems the Russians would be willing to sign.

MR. BERGMAN: And whether we will test after this series is something that can not be decided now, but must await the evaluation of the Russian testing? ...

DR. SEABORG: That is right, the evaluation of the Russian tests and the status of the test ban treaty negotiations at that time. The kind of treaty it might be possible to put into effect. The kind of a treaty that the Russians would be willing to sign. The amount of safeguards and enforcement in the treaty.

MR. BERGMAN: Dr. Seaborg, how soon do you expect the Russians might begin these new tests?

DR. SEABORG: I don't know. I have pondered that. I have been rather curious about it. It is difficult to make that assessment because the situation certainly isn't quite analogous to the situation last fall where apparently it was at least thought by them to be the best procedure to make the announcement and then start right away.

It could be that they might wait a little longer this time.

MR. BERGMAN: Turning to the subject of a nuclear test ban and detection, sir, U.S. scientists have made what have been called minor breakthroughs in detecting underground nuclear blasts What can you tell us about these breakthroughs?

DR. SEABORG: Well of course this VALA? program, this program for the seismic detection of underground nuclear explosions is the responsibility of the Department of Defense and earlier this month -- July 7 or 9, or some such date, the Department of Defense did issue a rather

complete and I thought good description of the present situation and this release did describe certain, as you call them, minor break-throughs. They have to do with such things as putting the seismograph deep down in the ground. I think something on the order of 10,000 feet in abandoned oil wells. The use of arrays, many seismographs lined up so they can improve discrimination between the signal from the seismic event and the nuclear explosion. An increased ability to discriminate between seismic events and nuclear explosions so that it is possible to eliminate more than what had at one time been possible, as seismic events. Some depth of focus results -- that is some increased ability to discriminate where the event originates since most underground nuclear explosions -- well all of them would originate near the surface, say within a mile, where as the earthquakes originate many miles down. All of these factors have led to minor improvements which are in the right direction.

MR. BERGMAN: Do you feel with these improvements and with further continued technical progress it will be possible to get a fool-proof nuclear test detection system?

DR. SEABORG: No, I think not a fool-proof nuclear test detection system. And of course we should be very careful to distinguish between detection of tests or detection of an event, and verification that it is a nuclear underground

test and not a seismic event. And therefore in spite of these minor break-throughs in the improvement of the situation with respect to detecting underground tests and discriminating them from earthquakes, it will still be necessa have the right to inspect, to go and see in the area -- in Russia in this case -- whether there was indeed an underground nuclear explosion.

MR. LODGE: It is not possible for us now to agree to a test ban treaty without calling for on-site inspection?

DR. SEABORG: The present position of the United States is that we must have, in order to be sure that the treaty is being abided by, on-site inspections and at the present time also this means there must be a certain number of on-site control posts. That is seismographs internationally manned within the Soviet Union.

MR. LODGE: Dr. Seaborg, turning to our Pacific nuclear test series, the effects of nuclear explosions on weapons has been called the most important phase of that series. Have we found nuclear explosions would prevent our missiles from reaching the target?

DR. SEABORG: Well, we have had really only one test that relates to that, the high-altitude test of July 9, I believe the date was. And all of the data hasn't been analyzed on that as yet so it would be premature, too early to try to answer that question.

MR. LODGE: Are estimates so far encouraging? Can you tell us that?

DR. SEABORG: I think it is too early to even attempt to answer that.

MR. BERGMAN: Dr. Seaborg, in our specific test series what are the major things we have learned so far?

DR. SEBORG: The major things we have learned in our pacific test series? Well, I don't think I would be free to answer that in any detail at all. You will recall in the statement that President Kennedy made on March 2nd in which he anncunced that we were going to undertake the atmospheric test series beginning late in April, that he mentioned our aims were, oh, essentially three-fold: To learn about the effects of nuclear weapons, particularly; to conduct tests that would increase the ratio of the yield to wei That is, increase the yield for a given weight of weapons so that it would be possible to introduce penitration aids into the missile carrying the weapon, decoys and other means of aiding the penitration of the weapon and then the proof testing of a number of weapons. All I can say is that the series went ahead and tests were devised in order to obtain information in each of those three areas.

MR. BERGMAN: Could you say, sir, whether nuclear explosions could be used to create a screen against in coming missiles?

DR. SEABORG: Well this is one of the questions that the effects tests are designed to answer.

MR. LODGE: In the problem of anti missile defense, won't NIKE-ZEUS have to be given a full scale test, with both the anti missile missile and the in coming target vehicle armed with an atomic warhead to effectively prove it is an effective anti missile defense?

DR. SEABORG: I don't know that one can, in a case like that, say what has to be done and what is essential. There will be those who feel this must be tested in that way with the complete system. There will be those who feel there is a strong almost certain probability that if all the components work then they will add together and the result will be satisfactory, without the complete systems test.

MR. LODGE: Will the NIKE-ZEUS be tested in this series? Is there time enough, I mean, in the current series, to give it a full test?

DR. SEABORG: There hasn't been a plan to test -- do you mean the nuclear warhead for the NIKE-ZEUS?

MR. LODGE: Yes.

DR. SEABORG: No -- in a test of the type you suggest with an in coming missile and so forth, no, that hasn't been contemplated in the present series.

MR. LODGE: It is not programmed?

DR. SEABORG: No.

MR. BERGMAN: Dr. Seaborg, would a nuclear explosion caused by an anti-missile, a nuclear warhead striking an incoming nuclear missile, throw other anti-missiles off their target?

DR. SEABORG: That is another version of the same question. That is, can an anti missile destroy an in coming missile and then give this blackout in radar and communications and so forth and that, as I say -- the answer to that question has been one of the chief purposes for these high altitude tests, which have not been completed. One has been made. The results haven't been analyzed enough to answer that question yet.

MR. LODGE: Dr. Seaborg, originally this series was scheduled to last from two to three months. The three months will be up sometime this week. Will it go past that deadline or wasn't it a deadline?

DR. SEABORG: Well, we don't know yet.

MR. BERGMAN: Do you think the Russians might stage such striking weapons advances in their new tests that we will have to come back with another test series?

DR. SEABORG: Well that is really just another variation, really, of the previous question. I would say that we will have to analyze the results of the Russian tests. We have a stron desire, the United States does, to have a workable, enforceable test ban treaty. We will have to weigh what is possible, what is available at that time to see whether we can get that treaty.

MR. LODGE: This may be a policy question not within your perview but do you think the public will likely learn as much about the testing and what was learned as the Russians did

through their trawlers and spy ships that they have had out there in the Pacific?

DR. SEABORG: Well we are, of course, in the area of weapons technology, there. I don't know what the Russians have learned, of course. It certainly hasn't been the policy to disclose that weapons technology. For example, not knowing what the Russians have learned, if we disclose that much information then we know the Russians would have it, so that would be a difficult question to answer.

MR. BERGMAN: Putting aside the anti missile for the moment -- and I am sure you are glad to -- we have talked a lot about harnessing the atom to blast out harbors and dig deep oil wells.

DR. SEABORG: Yes.

MR. BERGMAN: How close are we to this rather practical application of atomic peacetime uses for nuclear energy?

DR. SEABORG: This will depend upon what type of a research program it will be possible to carry out. Whether it will be possible to carry out this program, which as you know we call the "Plowshare" program. I would say, though, that it would be a matter of years, anyway. A number of years before the technology would advance to the point where we could put it into actual application for digging a canal or blasting our harbors. We really only had one explosion with that view. One really large-scale or applicable scale nuclear explosion and that was the Sudan shot earlier this month.

MR. LODGE: Dr. Seaborg, we have offered to join the Soviet Union or invited them to join us in the peaceful exploration of the uses of nuclear energy. How have they responded to this invitation?

DR. SEABORG: Well, a mixed response. We have had exchange visits. Soviet scientists over here and then approximately equal groups, numbers and types of scientists to visit the Soviet Union on a number of occasions. However, like many of our other negotiations and relationships with the Soviet Union, it has gone rather slowly.

MR. LODGE: Didn't we invite them to observe Plowshare?

DR. SEABORG: Yes. They were invited as a part of the overall invitation and they didn't accept. They didn't sent any observers.

MR. BERGMAN: Dr. Seaborg, you have lived through a scientific revolution with the atom just in these last 20 years. If you could project ahead 20 years, say, what do you expect to see in new uses of nuclear energy?

DR. SEABORG: Well, I would -- in 20 years I would expect to see -- this may not be in the category of new uses, in a sense -- I would expect to see a much broader scale use of nuclear energy in developing civilian electrical power. Surely by that time we will have a rather large-scale use of energy in this way. Also I expect to see quite a large use of nuclear energy in space. Both for the

propulsion of space vehicles -- to which our Rover Project is devoted -- and sources of auxiliary electric power in the satellites, to which our SNAP Project is and then I look to see continuing almost spectacular uses of the radioactive isotopes in all kinds of ways, particularly in medicine where they are used so successfully now in diagnosis and therapy, but also in industry and in basic scientific research and engineering programs.

MR. LODGE: Speaking of the scientific revolution that has exploded around us, I think you said in a recent speech the scientists should be elevated to the role of a participating partner in the government rather than being just in a limited or advisory role.

Do you think for instance the AEC Chairman should be at Cabinet level status?

DR. SEABORG: No, I didn't have that in mind. I think that the AEC Chairman has just about the right position in the government. My point there was that there should be a greater proportion of people with scientific know-how, scientific literacy in government in the legislative as well as in the executive branches, and I did make the point that this scientific literacy can be obtained both ways. That is it must be combined with political competency and I have seen many instances where the person with the political competence has picked up the scientific competence

and has come up with the right combination of scientific and political competency in my view. But I think more, starting with the scientific background, should also try to obtain this ideal combination of scientific and political competency.

MR. LODGE: You would like to see scientists run for office?

DR. SEABORG: I would like to see more scientists run for office, yes.

MR. LODGE: Are we attracting the most talented scientists into our vital government programs?

DR. SEABORG: Well, I don't know, again, that every scientist wants to or would particularly do well in any government office. I think that there is certainly a much larger number of scientists in such positions, in government positions in Washington now then there have ever been. I can at least say that with assurance.

MR. BERGMAN: I see where Russia is outpacing us now in the number of scientists and engineers she is turning out each year. Do we need to get more young people into science?

DR. SEABORG: Yes, I think so. More young people who are good, who are competent, and who can go on and get advanced degrees. We don't need just much larger numbers of ordinary scientists, we need larger numbers, however, of competent people who are qualified and will go on and get

advanced degrees in science, very definitely. Because we are as I have indicated many times, essentially a scientific society now, and our whole future, our economic development, our future prosperity depends on having a national competence in this area.

MR. LODGE: We need good people, but do you feel science as now taught in the colleges is alluring enough to young people?

DR. SEABORG: Well, I think so. Well, it certainly can be improved. When you say "start at the colleges," there is all levels of college teaching and many different kinds of colleges. I think the real room for improvement -- or I should say there is great room for improvement in the high schools and even in the elementary schools, I think science should be taught beginning at the first grade.

However, in the high schools much progress is being made as you probably know in these curriculum community studies that are being supported by the National Science Foundation.

MR. LODGE: You are working on a new chemistry curriculum for the high schools?

DR. SEABORG: Yes, I am chairman of a group centered at the University of California where I was previously situated, and at Harvey Mudd College in Claremont, California, on a high school course called the Chemical Education Material

study, or "Chem Study," for short. And this group which has Professor Campbell and Professor George Primentel? and other prominent scientists and high school teachers are developing a modern course, a course in modern high school chemistry based in a laboratory experiment. This is one of the difficulties, this is one of the unfortunate trends in high school chemistry and physics and biology, that the courses have gotten away from the laboratory.

MR. LODGE: Dr. Seaborg, back on the subject of testing, do you think Russia and the United States can continue to test indefinitely without this having some harmful genetic effect on both this and coming generations?

DR. SEABORG: I do not think they could test indefinitely without it having some harmful effect.

MR. BERGMAN: Is there a cutoff point we are nearing where fallout --

DR. SEABORG: No, it is much more complicated than that. You get into the matter of statistics.

MR. LODGE: I am sorry to interrupt, Dr. Seaborg, at this point, but our time is up.

Thank you very much for being with us today on ISSUES AND ANSWERS.

THE ANNOUNCER: This has been another in ABC's news-making series which brings you the answers to the issues of today.

Our guest was Dr. Glenn Seaborg, Chairman of the Atomic Energy Commission.

We hope you will be with us again next week at this same time for more ISSUES AND ANSWERS.

ISSUES AND ANSWERS is produced by Peggy Whedon. Directed by Charles Stopak. A presentation of ABC News.

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Tuesday, July 24, 1962 - D.C.

At 9:30 a.m. I met with Sir Roger Makins (Chairman, UKAEA). He said that the optimistic statements in the press regarding U.K. detection capability with the seismic array system are exaggerated.

In response to his query, I said we have no termination date for our underground tests at present. He said they may want to ask us to cooperate with them in the conduct of another underground test.

He raised the question, in connection with our request that the U.K allow us to use, for civilian purposes, the high Pu-240 that we get from them and whether we really want this plutonium or whether we would just as soon not have it. I said that I will look into this, presumably through Joseph Stephenson, and let him know.

He said that he has had difficulty with the U.K. Ministry of Defense with respect to the method proposed by the USAEC for furnishing information on submarine cores. The U.K. wants a preliminary meeting at the governmental level, say, between Rickover and the Controller of Navy, Le Fanu, before the meeting between Westinghouse and Rolls Royce representatives. They would apparently be embarrassed to have the full discussion in front of the Rolls Royce representatives. Unless we object, the new U.K. Minister of Defense will write to McNamara proposing this. I am to let Stephenson know whether this is satisfactory.

At this point we were joined by Algie Wells, Chris Henderson and by Donald Avery and Joseph Stephenson of the British Embassy We discussed further the problem of plutonium acquisition from the U.K. Makins said that the U.K. anticipates problems with Euratom if the U.K. agrees to the U.S. proposal and their Foreign Office is not prepared to take these risks. We said we will check with our State Department in order to explore this further.

Makins raised the question of whether the U.K. might be allowed to reprocess the U-235 from the Materials Testing Reactor. We said we would consult with State and the Joint Committee and give the U.K. our response to this request.

The U.K. intends to try to amend the IAEA Charter so that the budget can be supported by an assessment procedure. Makins indicated that the Russians will oppose this and will have much support in their opposition, but the Russians might support it if a ceiling is put on the budget. We indicated that the U.S. will support the U.K. on this. Makins indicated that although he will introduce the amendment, it might turn out to be expedient to withdraw it later.

I gave Makins a copy of the Smyth report on the future U.S. position toward the IAEA.

Makins said that the U.K. intends to continue its research program on the centrifuge (for the separation of isotopes) for two more years.

At 11 a.m. I addressed the professional staff of the Office of Education in the auditorium of the Department of Health, Education and Welfare, North Building (330 Independence Avenue, S.W.). My talk, "Education in the Age of Science--the Role of the Federal Government," seemed to be well received.

I had lunch with McMurrin and his top staff in a room just off his office.

At 2 p.m. I attended a meeting (resume of actions taken attached) of the Federal Council for Science and Technology in the E.O.B. Others present were: Wiesner,

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FEDERAL COUNCIL FOR SCIENCE AND TECHNOLOGY

Minutes and Record of Actions

Meeting of July 24, 1962

The meeting was convened at 2:05 p.m. in Room 206 of the Executive Office Building.

Attendance - Members of the Federal Council: Dr. Jerome B. Wiesner (Chairman); Dr. Allen V. Astin and Mr. John Stillman (for Dr. J. Herbert Hollomon - Commerce); Mr. William Carey (for Mr. Elmer B. Staats - BOB); Dr. E. C. Elting (Agriculture); Dr. Eugene Fubini and Mr. J. B. Macauley (for Dr. Harold Brown - DOD); Mr. Boisfeuillet Jones (HEW); Dr. Roger Revelle (Interior); Dr. Glenn T. Seaborg (AEC); Mr. R. J. Shank (for Mr. N. E. Halaby - FAA); Dr. Alan T. Waterman (NSF); Mr. James E. Webb (NASA); Dr. Walter G. Whitman (State).

Guests: Messrs. Harold Leich and Phillip Sanders (Civil Service Commission); Messrs. Hugh Loweth, Russell McGregor and J. Lee Westrate (BOB); Dr. Henry W. Riecken (NSF); Messrs. David Z. Beckler and Michael Michaelis (Office of Science and Technology); and Dr. Alvin Weinberg (PSAC).

Resume of Actions

Item 1 Chairman's Report

a) The Chairman announced that Dr. Frank J. Welch has resigned from the Department of Agriculture and that Dr. E. C. Elting is representing that agency on the Federal Council in the interim.

b) June 26 minutes, page 5 line 1, were corrected with a slight change in phraseology, regarding institutional grants.

c) After two years of devoted service and leadership as Chairman of the Standing Committee, Dr. Leonard Carmichael has found it necessary to resign. His successor, beginning August 1, is Dr. Allen V. Astin.

d) Publication and imminent public release was noted of several reports previously approved by the Council.

Item 2 Standing Committee presented two items of business for Council review and action: a) incentive awards and b) appointment of a new Council Committee on Behavioral Sciences.

After receiving presentation on the high variability in agency practices regarding incentive awards, the Council accepted the recommendation that the Civil Service Commission develop a study of existing practices so as to stimulate agencies to extend and improve their use of this award:

program. The Standing Committee was requested to follow through on this action.

Although agreeing that a proliferation of Council Committees was undesirable, it was the consensus that a new Committee on Behavioral Sciences be appointed, particularly to follow up recommendations of the PSAC report considered by the Council at its March 15 meeting. Council Committees were urged to invite behavioral scientists as observers, where appropriate.

Item 3 National Medal of Science - In response to an invitation by the President's Committee on the National Medal of Science, nominations were received from the Standing Committee, approved and forwarded -- of six career employees and six advisers to the Government who have outstanding histories of accomplishment.

Item 4 Interagency Issues in Environmental Health - In discussion led by Mr. Boisfeuillet Jones concerning the increased public attention to effects of chemicals in the environment, the need for a vigorous research program and for interagency coordination in this area, it was decided that an ad hoc panel should be appointed to examine the hazards, present mechanism for stimulating and coordinating research and adequacy of regulatory authority. Agencies were requested to clear in advance any press releases concerning their own policies and practices, to assure consistency.

Item 5 Status Report of PSAC Panel on Scientific and Technical Manpower - The Chairman reviewed issues and positions tentatively taken by the PSAC Panel and invited discussion. The proposed action program dwells on a number of policy issues before the Council and would involve implementation by a number of agencies. A draft copy will be circulated for more intensive study and comment.

Item 6 Spring Budget Review - With guidelines on agency budgets now developed by BOB, Council members were requested to check on any impact these may have on those programs that are being developed on a Government-wide basis.

Item 7 New Business - Dr. Revelle proposed review of an expanded program of PL 313's, but it was decided to defer any action until present pay reform legislation is decided upon.

Dr. Whitman discussed a recently completed PSAC report on International science, and it was agreed that it would be made the subject of Council discussion at a future meeting.

Revelle, Wenk, Jones, Astin, Carey, Waterman, Webb, Whitman, McCauley, Miochaellis, and others.

Astin was named the new head of the Standing Committee. The Committee discussed the matter of giving incentive awards to government employees, as well as discrepancies in this area, and the matter of the Civil Service Commission analyzing, publicizing and providing statistics to government laboratories.

It was agreed the National Medal of Science be recommended for the following: Hugh Dryden (NASA), Herb Friedman (NRL), Karl Guderley (WADC), Robert Huebuer (NIH), William Meggers (NBS), Wendell Woodring (Geological Survey), Charles Draper (aeronautical engineer), Howard Robertson (mathematics), Charles Townes (Physics) and Theodore von Karman (Aerodynamics). Jones reported on the problem of environmental health. A committee will be appointed to make a study of this report.

Wiesner reported on the Gilliland Panel report. Wenk reported on the spring preview of the FY 1964 budget.

I called Larry Hafstad at 5:30 p.m. and he told me that he could now accept my offer to serve on the General Advisory Committee.

I sent my biweekly report (attached) to the President today.

The family and Karen Wagner had dinner at the Metropolitan Club.

Wednesday, July 25, 1962 - D.C.

I had lunch with Frank Pittman at the Metropolitan Club to discuss and outline a report to the President on Civilian Nuclear Power which is due September 1st.

The Commissioners met with the ACRS to discuss their position on the visits to the ports of the NS Savannah, which is a followup meeting to the July 6, 1962, meeting the Commission had with the ACRS and the Maritime Administrator in Alexander. They still have a problem with running the hotel load on the reactor while in port. Their report is expected to be finished tomorrow.

I talked with Hal Hollister, Howard Brown and Chris Henderson about the Net Evaluation report. Hollister heads the new AEC group studying biological effects of radiation from nuclear war.

Wilkes returned to California after having worked on my forthcoming IAEA and other speeches.

Since my family was visiting the Shenandoah Mountains during the afternoon and evening I had dinner at the Mayflower Hotel with Commissioner Haworth.

Thursday, July 26, 1962 - D.C.

At 10 a.m. I talked with George Weil who said that the business of being a consultant to the nuclear industry has become very slow and that he would like to offer his services for some assignment with the AEC.

I had lunch with Lee Haworth and George Kavanagh at the Roger Smith Hotel.

From 2 p.m. to 3:30 p.m. I attended a meeting of the Principals. Those present were: Secretary Rusk, Wiesner, Murrow, Haworth, Keeny, Foster, McNamara, Nitze, McNaughton, McCone, Taylor, Bundy, Fisher, Webb, Rostow, Kavanagh and others. (Attached is a copy of the first page of the draft Comprehensive Test Ban Treaty we discussed.)

FILE

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NOV 86

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

July 24, 1962

PERSONAL AND CONFIDENTIAL

Dear Mr. President:

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

1. Labor Situation (Unclassified)

I reported to you on July 10th that labor difficulties at the Nevada Test Site (NTS) might lead to a work stoppage. This situation reached a climax on July 20th. On this date, the Atomic Energy Commission notified its cost-reimbursed contractor at the NTS, namely, the Reynolds Electrical and Engineering Company, not to put into effect at the NTS the changes in travel and subsistence provisions which had been set forth in a new labor agreement negotiated between Teamsters Local 631 and the Nevada Chapter of Associated General Contractors. The Commission took this action for the reason that the agreement imposed discriminatory conditions and excessive costs on the Government work at the NTS. Secretary Goldberg was in agreement with this action, and he is being kept advised. There is no indication of any threatened work stoppage at this time. However, we are informed that a local teamster official has notified Reynolds Electrical and Engineering Company that his Union is contemplating legal action to force payment of $1.50 per day increase in travel and subsistence as provided by the new agreement referred to above. We will keep you advised of any further developments.

In my last report to you, I also mentioned the labor difficulties at the Commission's Rocky Flats plant, operated by Dow Chemical Company at Boulder, Colorado. Through the good offices of Secretary Goldberg and his personal intervention, I am pleased to report that the matter has been resolved and settlement reached.

2. U.S.-U.K. Stockpile Meeting (Unclassified)

On July 23rd and 24th, representatives of the United Kingdom and the United States met in Washington to discuss and to review progress under the U.S.-U.K. Agreement for Cooperation on the Uses of Atomic Energy for Mutual Defense Purposes. While these meetings are held periodically, this meeting was especially important since it provided an opportunity to jointly discuss the results of the U.S. nuclear tests conducted at Christmas Island. Particular attention was given to those tests bearing on future U.K. nuclear weapons development.

At the meeting I presented to Sir Roger Makins, the senior U.K. representative at the meeting, a letter which expressed the Commission's appreciation for the assistance given by U.K. personnel to General Starbird and Joint Task Force Eight at Christmas Island. This letter had been suggested and endorsed by General Starbird who felt that while arrangements with regard to Christmas Island involved certain disadvantages to the United States, the U.S. could not have asked for a better group with which to work. For this reason, General Starbird suggested that appreciation for this cooperation be recorded at a high level.

3. Hearing Schedule (Unclassified)

For your information, the following hearings by the Joint Committee are scheduled in the immediate future:

(a) The JCAE has scheduled an open hearing for July 30th to hear State Department and AEC witnesses on the status of U.S. participation in the International Atomic Energy Agency. The recent report of Dr. Henry D. Smyth, U.S. Representative to the IAEA, urging greater U.S. support for the Agency, will be discussed.

(b) The JCAE has indicated its intention to hold hearings in the near future to review the program for the installation of safety devices on U.S. nuclear weapons overseas.

(c) Other JCAE hearing plans during the current session involve review of the Rover nuclear rocket program, and nuclear undersea warfare.

Respectfully submitted,

(Signed) Glenn T. Seaborg

Glenn T. Seaborg

The President
The White House

Draft of July 24, 1962

UNCL. BY DOE
NOV 86

COMPREHENSIVE TEST BAN TREATY

PREAMBLE

The Governments of the Union of Soviet Socialist Republics, the United Kingdom of Great Britain and Northern Ireland, and the United States of America,

Desirous of ending permanently all nuclear weapon test explosions,

have agreed as follows:

ARTICLE I

OBLIGATIONS TO DISCONTINUE

1. Each of the Parties to this Treaty undertakes, subject to the provisions of this Treaty:

a. to prohibit and prevent the carrying out of nuclear weapon test explosions at any place under its jurisdiction or control; and

b. to refrain from causing, encouraging, or in any way participating in, the carrying out of nuclear weapon test explosions anywhere.

Foster began the discussion by mentioning the improvements in detection which he thinks are beyond the preliminary stage. He described the deep interest in Congress and his discussion with Congressional representatives. He asked whether the best interests of the U.S. is served by trying to get a test ban treaty based on detection improvements in order to stop the leapfrogging of the test series. He said that the ACDA prefers a modified comprehensive treaty, using an international-national system of detection with a fall-back position of an atmospheric test ban. The Agency prefers to prepare the groundwork with a technical evaluation of the detection improvements, whereas the Delegation to Geneva feels that the treaty should be put before the technical evaluation.

Rusk asked what data are still tentative. McNamara said that the question of the level at which tests could be detected is tentative, but the most important question is what can be done by clandestine underground testing. Rusk asked me to describe this. I described the new limit of detection in the alluvium and said therefore it is a question of what can be learned in tests below this level.

The U.S. has obtained information on tactical weapons and on primaries for intermediate and large scale thermonuclear weapons, and can obtain information on all fusion weapons and effects in this range. However, most important is the effect on the vitality and the viability of the weapons laboratories. A ban on underground testing violated by the Russians would give them a big advantage in starting atmospheric testing again in the event of abrogation of a treaty.

Rusk asked McNamara and I if we would want a treaty if we knew neither side could test and we said we would.

Rusk said that the Russians say they will tolerate no onsite inspections and raised the question of why we should go on discussing in terms of numbers. He suggested we offer an atmospheric test ban. McCone said we had already done this, but I pointed out that these offers included inspection in Russia. Rusk again said that as long as the Soviets will tolerate no inspections, why go ahead with a comprehensive test treaty, and Murrow agreed. Wiesner suggested that a reason for first trying for a comprehensive treaty is to stop the proliferation of weapons and McCone agreed. There was a consensus that the U.S. position is that there should be more than zero inspections.

McNamara said he would like to see the risks to the U.S. of Soviet testing clandestinely and also the risks in terms of weapons proliferation of continued testing by both sides put down on paper.

Nitze suggested offering an atmospheric test ban to the Russians with the understanding that it would be extended to an underground test ban whenever they would agree to inspection.

Rusk said that he thinks the comprehensive test ban treaty with specific number in it, would have difficulty in Congress at this time, and that it would be better to settle with the Russians first the question of inspection.

Wiesner felt that Ambassador Dean has committed the U.S. to study the proposal of the neutrals, whereas Keeny felt that if we don't have a proposal with numbers in it, the neutrals will come in with a proposal suggesting very small numbers of inspections.

Foster and McNamara both reiterated that we should go ahead with the two written analyses mentioned by McNamara earlier. Murrow asked why it is necessary to announce an end to the current series. We agreed we are not going to do so.

McNamara said he understands that our policy will be to continue underground testing. He suggested that we also prepare for atmospheric testing. Wiesner made the point that we could counter the disadvantages of stopping testing by the developing more missiles than would otherwise be the case.

Rusk said that if it is OK with McNamara and me that they should set down on paper the categories of atmospheric test readiness in order to analyze the steps which could be taken.

The meeting then went on to a discussion of two items on disarmament, i.e., the recommendation on production limits and reduction of military bases in Stage I. These plans were described by Fisher and Foster. McNamara said he accepts the reduction of weapons by types. In response to a question by Rusk, McNamra said the DOD is planning to give up something on the order of 20 to 40 bases out of a total of some 500.

After the meeting Webb, Haworth and I discussed the matter of organization for SNAP-50. I said that his proposal for this organization is unsatisfactory to the AEC. I suggested an organization in which AEC, NASA and Air Force would have a joint office for SNAP-50, headed by an AEC man with NASA and Air Force men as associate directors, and operating through a single contractor, namely, Pratt and Whitney. Webb said that he will discuss this with his people. He also said he will let us know whether their interest in time scale was such that it will be satisfactory for the AEC to make bilateral arrangement with the Air Force. He suggested that the AEC give NASA an Air Force briefing on the technical aspects of the SNAP-50 project, commenting in particular on the Silverstein paper, and giving the reasons why AEC wants to go forward now. We agreed to do this.

I received a letter (attached) from Governor Nelson Rockefeller of New York. He enclosed an agreement between the USAEC and the State of New York for the transfer of certain regulatory responsibilities.

Frances Heppe, Helen's cousin from California, came to stay with us for a few days.

Friday, July 27, 1962 - D.C.

From 10:20 to 11:30 a.m. I attended a meeting with the President in the White House. Others in attendance were Rusk, McNamara, Nitze, Lemnitzer, Foster, Fisher, Long, McCone, Keeny, Wiesner, Haworth, Webb, Vice President Johnson, Taylor, Murrow, Bundy, McNaughton and Rostow.

Rusk opened the meeting by telling us that at the Meeting of the Principals yesterday, there was agreement that we need a treaty with controls, and in spite of the rush in such a treaty, it is desirable because the risk of proliferation of weapons in the absence of a treaty is also great. He described the new comprehensive treaty as involving national control posts and 12 onsite inspections, etc. He mentioned the need to educate Congressional leaders and the Joint Committee about the treaty.

One alternative is to table this treaty at Geneva. Another alternative, preferred by Rusk, would be to start with a declaration that the United States wants a comprehensive treaty, but since the present position of the USSR is that there

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NOV 86

NELSON A. ROCKEFELLER
GOVERNOR

STATE OF NEW YORK
EXECUTIVE CHAMBER
ALBANY

7/20/62

July 20, 1962

Dear Chairman Seaborg:

As you know, federal legislation enacted in 1959 and corresponding New York legislation enacted in 1960 authorize the execution of an agreement between the Atomic Energy Commission and this State whereby the Commission will discontinue certain regulatory authority within the State over byproduct materials, source materials and special nuclear materials in quantities not sufficient to form a critical mass.

The regulatory agencies within this State, in cooperation with the State Office of Atomic Development, have adopted modifications of the regulatory program which has been in effect in the State since 1955 in order to accommodate the additional responsibilities which these agencies would assume upon such discontinuation of regulatory authority by the Commission. The regulatory agencies have also provided specialized training to personnel to permit them to discharge their responsibilities under the proposed program, particularly with respect to the administration of a licensing system.

Now that the preparation of the modified program and the training of personnel have been completed, I am pleased to submit a narrative description of the program for radiation control in the State of New York, as well as the revised provisions of the State Industrial Code, State Sanitary Code and New York City Health Code, which form the underlying basis of this program, and a proposed agreement to be executed between this State and the Commission. I am particularly pleased to make this submittal in view of my firm belief that the execution of an agreement between the Commission and this State is in the best interest of the public health and safety and of the growing atomic energy industry.

The enclosed proposed agreement was developed by representatives of the State in cooperation with members of the Commission's staff. It differs from similar agreements previously executed by the Commission and several states in that it contains a Commission obligation to use its best efforts to cooperate with the State and other agreement States in the formulation of standards and regulatory programs of the State and the Commission for protection against hazards of radiation and to assure that State and Commission programs for protection against hazards of radiation will be coordinated and compatible. This provision is generally derived from the statutory requirements imposed upon the Commission by Section 274.g. of the Atomic Energy Act of 1954, as amended. The proposed agreement also contains an obligation of the State to use its best efforts to cooperate with the Commission and other agreement States in the formulation of standards and regulatory programs of the State and the Commission for protection against hazards of radiation and to assure that the State's program will continue to be compatible with the program of the Commission for the regulation of like materials. These joint obligations of the Commission and of the State are set forth in lieu of the provisions in previous agreements which unilaterally required the State to use its best efforts "to maintain continuing compatibility between its program and the program of the Commission for the regulation of like materials". In our judgment, the proposed agreement reflects more accurately the prospective cooperative relationship between the Commission and agreement states.

The proposed agreement also deletes a whereas clause, found in varying form in previous agreements, which stated generally that the agreement was entered into pursuant to the provisions of the Atomic Energy Act of 1954, as amended. We find such deletion desirable since we believe that this clause was unnecessary and might conceivably have been construed in such a manner as to reflect upon regulatory matters which are not the subject of the proposed agreement.

We are very pleased that, with the cooperation of the Commission's staff, a proposed agreement has been developed which satisifies the requirements of the Commission and the State and provides a suitable framework for assurance of the continuing compatibility which we believe to be extremely desirable.

As required by Section 274 of the Atomic Energy Act of 1954, as amended, I hereby certify that the State of New York has a program for the control of radiation hazards adequate to protect the public health and safety with respect to the materials within the State covered by the proposed agreement enclosed herewith, and that the State of New York desires to assume regulatory responsibility for such materials.

The revised provisions of the New York City Health Code, State Sanitary Code and State Industrial Code are scheduled to go into effect on October 15, 1962. In order to permit the execution of an agreement between the Commission and this State with an effective date of October 15, 1962, I would appreciate the cooperation of the Commission in taking action on this submittal, including the publication of the proposed agreement in the Federal Register, as promptly as possible.

I would like to express the appreciation of this State for the helpful assistance tendered by your staff with respect to the training of personnel and in reviewing and commenting on proposed modifications of the State's program.

Sincerely yours,

Nelson A. Rockefeller

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

UNCL. BY DOE
NOV 86

PROPOSED AGREEMENT
BETWEEN THE
UNITED STATES ATOMIC ENERGY COMMISSION
AND THE
STATE OF NEW YORK
FOR
DISCONTINUANCE OF CERTAIN COMMISSION REGULATORY AUTHORITY
AND
RESPONSIBILITY WITHIN THE STATE

WHEREAS, The United States Atomic Energy Commission (hereinafter referred to as the Commission) is authorized under Section 274 of the Atomic Energy Act of 1954, as amended, (hereinafter referred to as the Act) to enter into agreements with the Governor of any State providing for discontinuance of the regulatory authority of the Commission within the State under Chapters 6, 7, and 8, and Section 161 of the Act with respect to byproduct materials, source materials, and special nuclear materials in quantities not sufficient to form a critical mass; and

WHEREAS, The Governor of the State of New York is authorized under Section 462 of the New York State Atomic Energy Law to enter into this Agreement with the Commission; and

WHEREAS, The Governor of the State of New York certified on _____, 1962, that the State of New York (hereinafter referred to as the State) has a program for the control of radiation hazards adequate to protect the public health and safety with respect to the materials within the State covered by this Agreement, and that the State desires to assume regulatory responsibility for such materials; and

WHEREAS, The Commission found on _____, 1962, that the program of the State for the regulation of the materials covered by this Agreement is compatible with the Commission's program for the regulation of such materials and is adequate to protect the public health and safety; and

WHEREAS, The State and the Commission recognize the desirability and importance of cooperation between the Commission and the State in the formulation of standards for protection against hazards of radiation and in assuring that State and Commission programs for protection against hazards of radiation will be coordinated and compatible; and

WHEREAS, The Commission and the State recognize the desirability of reciprocal recognition of licenses and exemption from licensing of those materials subject to this Agreement;

NOW, THEREFORE, It is hereby agreed between the Commission and the Governor of the State, acting in behalf of the State, as follows:

ARTICLE I

Subject to the exceptions provided in Articles II, III, and IV, the Commission shall discontinue, as of the effective date of this Agreement, the regulatory authority of the Commission in the State under Chapters 6, 7, and 8, and Section 161 of the Act with respect to the following materials:

A. Byproduct materials;

B. Source materials; and

C. Special nuclear materials in quantities not sufficient to form a critical mass.

ARTICLE II

This Agreement does not provide for discontinuance of any authority and the Commission shall retain authority and responsibility with respect to regulation of:

A. The construction and operation of any production or utilization facility;

B. The export from or import into the United States of byproduct, source, or special nuclear material, or of any production or utilization facility;

C. The disposal into the ocean or sea of byproduct, source, or special nuclear waste materials as defined in regulations or orders of the Commission;

D. The disposal of such other byproduct, source, or special nuclear material as the Commission from time to time determines by regulation or order should, because of the hazards or potential hazards thereof, not be so disposed of without a license from the Commission.

ARTICLE III

Notwithstanding this Agreement, the Commission may from time to time by rule, regulation, or order, require that the manufacturer, processor, or producer of any equipment, device, commodity, or other product containing source, byproduct, or special nuclear material

shall not transfer possession or control of such product except pursuant to a license or an exemption from licensing issued by the Commission.

ARTICLE IV

This Agreement shall not affect the authority of the Commission under Subsection 161 b. or i. of the Act to issue rules, regulations, or orders to protect the common defense and security, to protect restricted data or to guard against the loss or diversion of special nuclear material.

ARTICLE V

The Commission will use its best efforts to cooperate with the State and other agreement States in the formulation of standards and regulatory programs of the State and the Commission for protection against hazards of radiation and to assure that State and Commission programs for protection against hazards of radiation will be coordinated and compatible. The State will use its best efforts to cooperate with the Commission and other agreement States in the formulation of standards and regulatory programs of the State and the Commission for protection against hazards of radiation and to assure that the State's program will continue to be compatible with the program

of the Commission for the regulation of like materials. The State and the Commission will use their best efforts to keep each other informed of proposed changes in their respective rules and regulations and licensing, inspection and enforcement policies and criteria, and to obtain the comments and assistance of the other party thereon.

ARTICLE VI

The Commission and the State agree that it is desirable to provide for reciprocal recognition of licenses for the materials listed in Article I licensed by the other party or by any agreement State. Accordingly, the Commission and the State agree to use their best efforts to develop appropriate rules, regulations, and procedures by which such reciprocity will be accorded.

ARTICLE VII

The Commission, upon its own initiative after reasonable notice and opportunity for hearing to the State, or upon request of the Governor of the State, may terminate or suspend this Agreement and reassert the licensing and regulatory authority vested in it under the Act if the Commission finds that such termination or suspension is required to protect the public health and safety.

ARTICLE VIII

This Agreement shall become effective on October 15, 1962, and shall remain in effect unless, and until such time as it is terminated pursuant to Article VII.

Done at _____, in triplicate, this_____ day of _____, 1962.

FOR THE UNITED STATES ATOMIC ENERGY COMMISSION

_____

Glenn T. Seaborg, Chairman

FOR THE STATE OF NEW YORK

_____

Nelson A. Rockefeller, Governor

shall be no on-site inspections, it is impractical to talk about the details of such a treaty. Therefore, the U.S. should propose an atmospheric test ban now while continuing to work toward a comprehensive treaty.

The President inquired as to the effect of the results of the Russian tests on such a procedure. Rusk said that we might protect ourselves by indicating that we would not go ahead with such an atmospheric test ban after a certain stage in their contemplated atmospheric testing program.

The President asked whether we might wait until the end of the Russian tests before offering such a treaty, and Rusk indicated that we could possibly proceed sooner but modify our position if the Russians made a large number of tests before responding.

The President then asked why, if there has been a reduction from about 2,200 to 350 interfering earthquakes per year, we still need 12 to 20 onsite inspections. Foster indicated that a different system is now contemplated; namely, some 25 stations with possibly zero or five in the USSR, whereas the previous Geneva system contemplated 180 stations with 19 internationally manned in the USSR.

I indicated the importance of the threshold, below which nuclear explosions might not be detected especially in the alluvium. Bundy indicated that satellites might show the alluvium shots due to the depressions formed. I explained what can be accomplished by low yield underground tests in the areas of: 1. tactical weapons, 2. primaries for intermediate and large thermonuclear weapons, 3. development of all fusion weapons, 4. tests on effects and vulnerabilities and 5. experiments to verify new ideas which come out of the laboratories with their consequent effect of keeping the laboratories strong.

McCone agreed with the assessment of what might be accomplished in underground testing but pointed out that the continuation of underground testing leads to the proliferation of weapons. He mentioned 1. the proposal of Eisenhower to Khrushchev for an atmospheric test ban, and 2. because the U.S. ridiculed a proposal by the USSR in 1958 to stop testing after they had completed their series, that perhaps we would be ridiculed for similar reasons now.

The President said that we may want an atmospheric test ban even after their tests. Rusk said that perhaps both countries could agree on a cutoff date at some point before the atmospheric testing is finished. McNamara said that he doesn't think we are in a position at the present time to talk about numbers in the comprehensive treaty. He also said that we should assess the risks attendant both with and without a test ban treaty. He emphasized that the five points in alternative one on the agenda for today's meeting should be considered as a package.

Bundy said he doesn't know whether the U.S. should agree to a treaty without international posts in the USSR. Rusk pointed out that we could have a neutral scientist present at the USSR posts, and the President thought that this was a good proposal. He emphasized again that we need a better balance of the dangers between a test ban treaty and a no test ban treaty.

Bundy asked if we could have a delay in the negotiations in Geneva. Rusk felt that we should brief the Geneva people on the technical data, and I indicated I feel that the threshold problem and what could be tested clandestinely below the threshold is not generally understood by the public. Wiesner thought this

threshold problem is more complicated than I indicated.

The President feels that since the U.S. has worked itself into a deplorable situation by spreading information on detection at too early a time before the country has had a chance to make policy, he asks whether we could get Dean back for this weekend to stay three or four days to go over the situation. We agreed to this.

Bundy inquired as to what should be announced to the press as a result of this meeting, and the President wondered whether there might be a background briefing of the press. He asked Bundy, Foster, Wiesner and others to discuss this possibility after the present meeting. Such a briefing should make it clear that we still need onsite inspections. he mentioned that the U.K. would agree to this, but might disagree on the need for internationally manned posts in the USSR, although the presence of a neutral observer might mitigate this.

The President then went back and reviewed the five points on the program that were being agreed to. He asked me to prepare, before the meetings early next week, a memorandum on readiness for atmospheric testing. Bundy indicated that the immediate problem in this connection is the availability of Christmas Island and also suggested that Ambassador Ormsby-Gore be briefed. The President agreed and requested a memorandum for a talk with Gore later today. He suggested that there should be a meeting of today's group with Dean on Monday or Tuesday.

The President asked whether the two-way assessment of risks could be ready in less than the scheduled two weeks, and McNamara indicated it can with the implication that it can be ready early next week. The President reiterated again the need for an early summary on the risks to the U.S. of clandestine Soviet testing (that is, one-half of the two-way assessment), and I indicated that this summary can be ready early next week.

The President raised the question of what might be told to the press, and Bundy suggested that it be said that the President has reserved on a final decision pending consultation with Dean. I indicated that it would be worthwhile to point out that the so-called controversy within the Administration over a position on a test ban treaty had been overdrawn.

The President asked Bundy to prepare a memorandum summarizing the various conclusions and projected actions.

I had lunch at the Metropolitan Club with Manson Benedict to explore with him why the GAC objects to giving a Fermi Award to both Teller and Oppenheimer (they recommend Teller). Apparently the main problem is the feeling that AEC is interfering with their prerogative in making the suggestion; some oppose Oppenheimer in any case. I suggested a possible compromise by announcing Teller late this year and Oppenheimer early next year.

At 3:45 p.m. I presided over Information Meeting 179 (notes attached).

I received a phone call from John McCone, who said he was disturbed by one statement made by the President at this morning's meeting, and that was, "that the benefits to be derived from where they are testing were infinitesimal." I asked if the President had really said this, and John said that he had. John wondered why someone hadn't questioned it at the time as the benefits are not infinitesimal, particularly in view of RIPPLE or ASHCAN. I told him that we have a memorandum in the mill now which emphasizes the DOMINIC series, and that we would have an

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

COPY NO. 13 UNCL. BY DOE NOV 86

July 28, 1962

INFORMATION MEETING 179

3:45 p.m., Friday, July 27, 1962 - Chairman's Office, D. C.

1. Personnel Matter.

The Commissioners had no objection to the appointment proposed by Mr. Price.

2. Davidson Chemical Company.

It was agreed that Davidson's application for a facility license would be referred to the ACRS, and that handling of this case on an ad hoc basis would be discussed informally with the Chairman, ACRS. (Price)

3. N.S. SAVANNAH.

Mr. Price advised that the ACRS recommendations on operation of the SAVANNAH on its visits to ports from Savannah, Georgia through Galveston, Texas has been received, and the staff expected to have a proposed order ready for Commission consideration on Tuesday, July 31, 1962. General Luedecke said the Maritime Administration objected to the provision for shutting down the reactor while in port, and if the Commission approved the ACRS recommendations he would seek Maritime Administration approval of them on Monday, July 30. The Chairman said the Commissioners approved the ACRS recommendations, and that General Luedecke and Mr. Price should proceed on that basis. (Luedecke-Price)

The Chairman said the AEC would object to a proposed State Department message to the American Embassy in Tokyo relative to an early visit of the SAVANNAH to Japan. (Henderson)

Relative to Commission representation at ceremonies at Savannah, Ga., on August 22, Commissioner Haworth said he could attend if necessary, but that he would discuss the matter with Commissioner Wilson.

4. Visit of USS ENTERPRISE to Medeterranian Ports.

With the use of maps of the respective ports, Mr. Ink discussed a proposed letter to the Secretary of the Navy. The Chairman signed the letter for dispatch. (Henderson)

5. Chairman's Meeting with Sir Roger Makins.

The Chairman noted the following matters which had been discussed with Sir Roger:

a. The U.K. feels an amendment to the U.S.-U.K. military agreement is necessary to cover U.S. use of high-240 content plutonium for civil purposes.

b. Sir Roger raised the question as to whether the U.S. really wanted this material, or was it just keeping its part of a bargain. The Chairman requested that this matter be reviewed on a high priority. (Luedecke)

c. The U.K. would prefer to initiate discussions on exchange of information on submarine cores at a Government-to-Government level, probably between Admiral Rickover and his U.K. counterpart. General Luedecke said he would discuss this point with Commissioner Wilson. (Luedecke)

d. The U.K. is interested in reprocessing U-235 for European users, under an arrangement similar to the Commission's recently approved policy on third-party fabrication. Sir Roger was advised the AEC would look into the matter and inform them.

e. The U.K. plans to introduce at the next IAEA Board of Governors meeting a proposal to provide funds for the IAEA budget through an assessment procedure. The USSR probably will oppose such a proposal.

f. The U.K. is continuing research on the centrifuge process.

6. SNAP-50.

The Chairman said that as a result of discussions he and Dr. Haworth had with Mr. Webb, the AEC may provide a briefing on SNAP-50 similar to the recent Air Force briefing, and at that time the AEC could respond to Dr. Silverstein's paper.

7. Announcement of USSR Tests.

The General Manager said it was proposed to handle the announcement of any future USSR tests as in the past--to announce certain of them, but to let it be known we were not going to announce all of them.

8. Gaseous Diffusion Data to the French.

The Commissioners agreed the information in question should not be declassified.

9. Summary of Operation DOMINIC for the President.

The Chairman said Mr. Bundy wants to see a written report before deciding on an oral briefing, and that Mr. McCone has recommended an oral briefing. The Chairman requested that the summary which the General Manager has in preparation be brief with emphasis on the positive achievements of the tests.

10. Production of Enriched Uranium.

The General Manager said he would brief the Commission at the 9:30 a.m. Information Meeting on Monday, July 30.

11. Contract with AUI.

The Chairman asked that he be kept informed of the progress of negotiations with AUI. (Vinceguerra)

The Director, BOB has called a meeting on July 31 to discuss the general question of fees for universities, and either Mr. Henderson or Mr. Brown would attend from the Chairman's office.

12. Personnel Matter.

The Chairman said we should keep the offer in mind and use the individual if possible.

13. Meeting of Federal Council for Science and Technology.

The Chairman noted the items discussed.

14. Agenda for week of July 30.

Approved as revised. The AEC-MLC Conference Agenda was also approved.

15. AEC Authorization Bill.

16 Resolution by American Dairy Science Association.

17. Extension of Prices for Plutonium and U-233.

The Chairman requested this be discussed with Commissioner Wilson upon his return. (Luedecke)

...

18. Contract for water for Stanford Linear Accelerator.

The General Manager said he had authorized the staff to proceed with execution.

PRESENT		DISTRIBUTION
Dr. Seaborg	General Luedecke	Commissioners
Dr. Haworth	Mr. Price*	General Manager
	Mr. Ferguson	General Counsel
	Mr. Ink*	Secretary
	Mr. Henderson	
	Mr. Anamosa	

Harold D. Anamosa
Acting Secretary

* Partial attendance.

evaluation for DOD in time to use with their input when Dean returns. John thought this was important enough for me to consider writing a personal memorandum to the President and McNamara about the breakthrough from RIPPLE. I said I would like to think about this.

I received the report of the 80th meeting of the GAC (attached) from Manson Benedict.

I attended a farewell reception for Mr. and Mrs. Donald Avery at the British Embassy. Avery will be replaced by Joseph Stephenson as Scientific Attache.

Saturday, July 28, 1962

The entire family and Karen Wagner drove up to Gettysburg where we toured the Battleground with a government-sponsored guide. We saw the Peace Memorial (with the burning flame), the High Water Mark, Devil's Den, Peach Orchard, Culp's Hill, Little Round Top, the cemetery where Lincoln gave his Gettysburg Address, the area of Pickett's charge, etc.

We also visited the new National Museum (Cyclorama) with it huge 360° mural painted more than 50 years ago, the Civil War Wax Museum and the Wills' home (now a museum) in downtown Gettysburg where Lincoln spent the night of November 18, 1863, and worked on his Gettysburg Address. We also saw the railroad station where Lincoln arrived from Washington on November 18, 1863.

Sunday, July 29, 1962

With the exception of Dianne, who stayed home with Mrs. Schulke, the family and Karen Wagner attended the Washington Senators-Boston Red Sox baseball game (the Red Sox won by a score of 4-2) as the guests of Pete Quesada (President of the Washington Senators). The boys met many of the Senators in the dressing room after the game.

We drove Karen Wagner to Friendship Airport where she caught a 6:30 p.m. plane to San Franciso and home.

Monday, July 30, 1962 - D.C.

At 10:15 a.m. I presided over Information Meeting 180 (notes attached).

I received a letter (copy with my response attached) from A. M. Petrosyants (Chairman, State Committee of USSR Council of Ministers for Utilization of Atomic Energy) in which we agreed to support the 1964 Conference on the Peaceful Uses of Atomic Energy now under UN sponsorship with IAEA participation.

I had lunch with Phil Abelson at the Metropolitan Club to discuss his views on giving the Fermi Award to Oppenheimer, if not simultaneously with Teller this year, then early next year. He is not enthusiastic but he will not oppose it.

I was interviewed by Henry Simons of Newsweek for background material for an article that he is writing on the Test Ban.

I sent a letter to Eldon Haines with copies to Stan Thompson and Iz Perlman, approving Haine's thesis, telling him he had done a good job.

From 5 p.m. to 6:40 p.m. I met with the President in the Cabinet Room of the White House. Others present were: Vice President Johnson, Rusk, McNamara, Foster, Dean,

OFFICE DIARY
GLENN T. SEABORG
Chr USAEC, 1961-72
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GENERAL ADVISORY COMMITTEE
to the
U.S. ATOMIC ENERGY COMMISSION
P.O. Box 3523
WASHINGTON 7, D.C.

JUL 27 1962

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

Dear Glenn:

The 80th Meeting of the General Advisory Committee was held at the Berkeley and Livermore sites of the Lawrence Radiation Laboratory on July 9, 10 and 11, 1962. All Committee members were present at all sessions. The present members of the Committee are Philip H. Abelson, Willard F. Libby, Eger V. Murphree, K. S. Pitzer, Norman F. Ramsey, J. C. Warner, Eugene P. Wigner, John H. Williams, and Manson Benedict, as Chairman. Also present were Robert A. Charpie, Secretary, and Anthony A. Tomei, Assistant Secretary.

(1) Weapons Matters

The Weapons Subcommittee met in Washington on June 18 to review the status of test results from Nougat and Dominic. During the present meeting the full GAC heard briefings on several weapons matters, including the latest test results, from representatives of the Division of Military Application, Los Alamos Scientific Laboratory, and Lawrence Radiation Laboratory - Livermore. The report of the Weapons Subcommittee on all these briefings is transmitted as an appendix to this report.

The most important accomplishments of the current test series in the GAC's opinion are the following:

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BY AUTHORITY OF DOE/OC
REVIEWER BY 6/24/86 DATE
J Diaz 6/24/86

Reply letter sent on 11/3/62

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Chr USAEC, 1961-72
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H. The clean Sedan experiment suggests that relatively large cratering experiments, of the Plowshare type, can be performed successfully in Nevada.

The current test series have produced many important successes. They have also yielded some surprises and some failures which confirm that we are indeed experimenting at the frontiers of weapons technology. The test successes vindicate, in a large measure, the elaborate computational and certification procedures which were developed during the moratorium. The surprises and failures serve to remind us that our theories and procedures are, at best, only approximate, particularly in the very important limit represented by fully optimized warhead designs.

We want to call attention to the current Livermore opinion that it is probably practical to test weapons with yields up to one megaton in Nevada. We recommend that the AEC investigate this possibility vigorously by undertaking a program of relatively clean tests of ever-increasing yield which will establish the true limitations on yield which must be imposed on testing at NPG.

Finally, we were pleased to learn of at least two techniques [redacted] which can probably be utilized to build a weapon of the [redacted] It is our opinion that the AEC should undertake the design and preparation of such a device in order to be ready for a test, when and if such a test becomes desirable.

(2) Dangers of a Second Test Moratorium

The Committee learned from Dr. Haworth that current disarmament negotiations between the United States and Russia might well lead to an agreement on a partial or complete ban on nuclear weapons testing. As we have in the past, we wish to transmit to you again our conviction that such a weapons test ban would have a seriously detrimental effect on U.S. nuclear weapons capability.

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Experimental confirmation of theory, design principles and predicted weapon performance through weapons testing is an essential element of a weapons development program. The results of the current U.S. test series show that even our best laboratory computers and sophisticated theory can never develop as reliable information as can be obtained from experimental testing of weapons.

The loss of talented personnel from the weapons laboratories and the decrease in the laboratories' sense of mission during the previous test moratorium, followed by the resurgence in their morale after the current test series was authorized and initiated, show how essential the ability to test is to maintenance of the competence and vitality of these laboratories.

It is now all too obvious that while Russia was making preparations for an elaborate and effective series of tests during the moratorium, the U.S. was losing its capability for testing. After the Russian violation we were slow to resume testing, particularly in the atmosphere, and our test series, valuable as it has been, did not include such critically important events as the Russian 58 MT clean test and their very sophisticated study of weapon effects and defense penetration.

If the U.S. and Russia agree to another test ban, our laboratories should be prepared to resume testing promptly if the Russians should again violate the agreement, and we should announce in advance our intention to test under such conditions. Maintenance of readiness to test should include having weapons on hand for test, sites prepared, instrumentation ready and personnel trained through practice exercises. Such preparation would help maintain the vitality of the laboratories and would permit us to test more quickly and more effectively following Russian violation.

(3) Plutonium Value

Dr. Paul Fine, Gen. A. W. Betts and Dr. Lawrence Germain presented information on the cost of producing plutonium in AEC facilities and the value of plutonium as reactor fuel and in weapons.

It is recommended that the AEC make a firm commitment for a number of years to buy all plutonium produced in U.S. power reactors at a minimum price set at its estimated value as fuel. If the AEC should need more plutonium for weapons than is being produced in AEC facilities and offered from power reactors at this minimum fuel price, it is recommended that the AEC establish a higher price for plutonium on a year-to-year basis. The price should be set no higher than necessary to bring in the amount of additional plutonium needed, and should not be higher than the lower of the value of plutonium in weapons and the incremental cost of producing plutonium in AEC facilities.

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(4) Lawrence Radiation Laboratory

Dr. John Foster summarized for the Committee the research programs on weapons and related topics at Livermore, and Dr. Robert L. Thornton and his associates described the principal areas of research at Berkeley. In addition, the Sherwood Subcommittee inquired in detail into the Sherwood research program at Livermore. Speaking generally, the Committee was very favorably impressed by the productivity of both Lawrence Radiation Laboratory sites, and the imagination, originality and high calibre of their research.

Livermore's excellent work on weapons has been cited earlier; here mention will again be made only of the notable [redacted]ries of experiments on pure fusion explosions. This is of great significance both in weapons and in the Plowshare program. Some of Livermore's Sherwood work ranks with the best in the world.

Berkeley's research in high energy physics, nuclear chemistry, inorganic materials and radiation chemistry is without equal. The Committee was pleased to note that the strength and prestige of the Laboratory were being maintained despite Dr. Lawrence's untimely death. Its direction is evidently in good hands. The interaction between the Laboratory and the University of California and the extensive involvement of graduate students in the Laboratory programs are important elements of strength.

(5) Sherwood Program

The GAC has completed an intensive review of the AEC's controlled fusion program. After hearing briefings at its last two meetings from the Division of Research and from each of the four major laboratories involved in the Sherwood program, the CAC organized an Ad Hoc Sherwood Subcommittee. This Subcommittee visited each of the four laboratories for more detailed discussions, and gave intensive consideration to the entire Sherwood program. The Subcommittee wishes to record here its sincere appreciation for the assistance which it received from Dr. Marshall Rosenbluth who served as an expert consultant to the Subcommittee during its deliberations. The report of the Subcommittee, which has been received and approved by the full GAC, will be transmitted to you in the near future. The following statement summarizes the principal views and recommendations of the GAC regarding the controlled fusion program.

The initial hope of the Sherwood program that a machine producing thermonuclear power in practical amounts could be developed in a few years, by the realization of stable confinement of a hot plasma undergoing thermonuclear reactions, will be very difficult to achieve. Much additional experimental work must be undertaken and better theoretical understanding of plasmas must be secured before a practical thermonuclear machine can be developed. Nevertheless, the GAC believes that the AEC's Sherwood effort is fully justified. The AEC's program is attacking the experimental and theoretical problems of fusion vigorously and is producing useful and important results. Furthermore,

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recent engineering studies of possible thermonuclear reactor configurations have reinforced the opinion that, if it is possible to obtain a hot confined plasma, it may be possible to produce electricity at costs of the order of those which will prevail in thermal or nuclear plants in the same time period.

We recommend that the AEC -

1. Continue to support Project Sherwood vigorously.

2. Require that the Princeton Stellarator Project produce a plasma in the kev temperature range with a ratio of material pressure to magnetic pressure, β, of at least 1% within three years, or, if unable to do so, the Model C portion of the Princeton program should be closed out. Plasma confinement by the Stellarator principle, or a related closed geometry, appears to be necessary for a practical thermonuclear power system. It is, therefore, unfortunate that the Princeton organization has not been adequately effective in dealing with the major engineering and construction problems of the Stellarator project. Men experienced in constructing major hardware (examples are Livingston, Jacobus or Green) should be brought into the Princeton project and given a reasonable time either to get the Model C Stellarator into satisfactory operation or demonstrate that it cannot be done.

3. Redistribute the effort at Oak Ridge by (1) shutting down the DCX-1 facility as soon as feasible, (2) emphasizing the DCX-2 and increasing the strength of experimental and theoretical physics effort on the Sherwood program.

4. Determine that Astron is not part of the AEC Sherwood program. Transfer responsibility for the Astron accelerator to ARPA for DOD-supported research programs.

5. Discontinue construction of the Toy Top 2X experiment until such time as there is clear-cut justification from Toy Top and Table Top experiments currently planned (especially in regard to stability) for going to such a large scale in the magnetic compression and transfer work.

6. Increase moderately the size of the LASL program provided this can be done without increasing the size of the Laboratory or decreasing the weapons effort.

7. Expand support of high-quality plasma research at universities. This could desirably constitute as much as 25% of the total Sherwood budget.

8. Support high-quality investigations of the systems engineering, chemical and other non-plasma development problems of

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full-scale fusion power plants. Systematic investigation of these non-plasma problems is an essential element of a complete fusion power development program. This effort could desirably constitute as much as 5% of the total Sherwood budget.

9. Explore means for making AEC management of the Sherwood program more effective, in view of the changed character and emphasis of the program.

(6) Civilian Power Reactor Program

The Committee discussed with Dr. Haworth the review of the civilian power reactor program being undertaken by the Commission. The Reactors Subcommittee, which had participated actively in the technical seminars in power reactors which the AEC had conducted, presented its report. This report was approved by the full GAC and is transmitted as an appendix to this letter. The principal conclusions and recommendations are given in the first three pages of the report. Two general conclusions are apparent: (1) the momentum of the AEC's program for developing more economic power reactors should be maintained by encouraging construction of large power reactors incorporating substantial improvements, and (2) the primary emphasis in developing more advanced reactors should be on systems capable of burning fertile material more completely.

(7) Civil Defense

In the Committee's opinion, the AEC is the Federal agency best qualified to develop technology for protecting the civilian population against the effects of nuclear attacks. Development of monitors, shelters, protective clothing and wholly new protective measures are examples of tasks which could be undertaken by the AEC. The Committee recommends that the AEC seek responsibility for this phase of civil defense and that responsibility for this effort be then delegated to one of the large AEC laboratories. This laboratory should necessarily maintain a constant liaison with the agencies responsible for other parts of the Civil Defense effort.

(8) Election of Acting Chairman

Inasmuch as Dr. Benedict's appointment to the GAC terminates on August 1, 1962, the Committee has elected Dr. K. S. Pitzer as Acting Chairman for the period between August 2, 1962 and the start of the 81st Meeting of the GAC or the date of Dr. Benedict's reappointment to the Committee whichever date is earlier.

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Chr USAEC, 1961-72
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(9) 81st Meeting

The 81st Meeting of the GAC will be held in Washington on October 4, 5 and 6. The agenda will include the following topics:

1. Briefing by DMA on results of weapons test series.

2. Briefing on educational matters --

   a. AEC's education and training program, by Dr. Poor and associates.

   b. Educational role of Laboratories, by Dr. Weinberg and, possibly, representatives of Los Alamos and Argonne.

3. Briefing on Civil Defense --

   a. AEC's role in development of civil defense technology.

   b. BREN reports.

4. Informal meeting with Dr. English and program division directors who report to him.

(10) 82nd Meeting

The 82nd Meeting of the GAC is tentatively scheduled for January 7, 8 and 9, 1963, in Washington.

Sincerely yours,

Manson

Manson Benedict
Chairman

Attachments (2)
Weapons Subcommittee report.
Reactors Subcommittee report.

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

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NOV 86

COPY NO. 13

July 30, 1962

INFORMATION MEETING 180

10:15 a.m., Monday, July 30, 1962 - Chairman's Office, D. C.

1. N. S. SAVANNAH

The Commissioners discussed briefly the ACRS letter of July 27 with particular reference to the recommendation on the reactor shutdown and depressurization in port. The General Manager said he is working with Mr. Price and staff with the view to some modification of such a requirement and the Commissioners agreed that the proposed procedure should be modified if acceptable. The General Manager will discuss the matter with Mr. Alexander and the Commission will consider it at 11 o'clock tomorrow morning.

2. Briefing on Reactor Study for Joint Committee, Tuesday, July 31, 3:30 p.m.

The Commissioners and staff will attend.

3. Meeting of the Standing Group, Friday, August 3, 2:15 p.m.

The Chairman said the following matters will be discussed at the meeting:

a) materials production;
b) restricted data and former restricted data; and
c) organizational matters.

Commissioner Haworth, the General Manager and Messrs. Quinn and Marshall will attend with the Chairman.

4. Report to the President on Operations DOMINIC and NOUGAT

The Chairman requested review of the draft letter by the Commissioners, looking to early transmittal to the White House. He noted briefings by JTF-8 representatives and laboratory representatives will be held in late August or early September.

- - - - - - - - - - - - - - -

(The meeting recessed briefly to reconvene in Room 1113-B with Messrs. Brown, Quinn, Baranowski, Bartels, Miller, Johnson and Faulkner present)

5. Briefing on Production Requirements

The Chairman suggested review of the draft letter to Mr. Bundy and transmittal by Wednesday in preparation for the Friday meeting. The Commissioners requested discussion in the letter of an additional Case based on previous conversations with Dr. Gerald Johnson. Additional information on ore concentrate requirements is also to be included. The General Manager pointed out the need for early discussion with the Congress if the Commission wishes to move forward with the uranium procurement stretch-out. (Quinn)

PRESENT

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

DISTRIBUTION

Commissioners
General Manager
General Counsel
Secretary

W. B. McCool
Secretary

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State Committee of the
Council of Ministers of the
USSR on Utilization of Atomic
Energy - Moscow

ISSD 7/19/62

14 June 1962

Respected Professor Seaborg

I carefully acquainted myself with your proposals in regard to implementing the Third Conference on Utilization of Atomic Energy for Peaceful Purposes, proposals which you made in your letter of 3 April 1962, and I would like to express my opinions on this matter.

I agree with you that it would be reasonable to plan the convocation of the Third Conference for 1964.

Incidentally, I believe that it would be desirable to hold this conference under the aegis of the United Nations with the participation of the International Agency for Atomic Energy and specialized bodies of the UN. This would permit to attract as participants in the conference a significantly larger number of member-nations of the UN, nations which are not members of the International Agency for Atomic Energy.

In regard to the program of the conference, I assume that it could have a general nature similar to the previous two conferences on utilization of atomic energy for peaceful purposes, conferences which occurred in 1955 and 1958. The 1964 conference could be held in Geneva.

I would like to hear your opinion on this matter.

Sincerely,

A. Petrosiants

/s/ A. Petrosiants

To: Professor G T. Seaborg
Chairman of the Atomic Energy
Commission of the US
Washington

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

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JUL 30 1962

Dear Mr. Petrozlantz:

I was pleased to receive your letter of June 14, 1962, and it appears that we both favor planning for a Third Conference on the Peaceful Uses of Atomic Energy in Geneva in 1964.

As you know, it was my opinion that it would be preferable to hold the Conference under the auspices of the International Agency for Atomic Energy in association with the United Nations, so that the UN could also contribute to the support of the Conference. However, in view of the importance of holding this Conference, I am happy to go along with the suggestion that it be held under the sponsorship of the United Nations if the Agency is assigned its proper scientific role.

I believe we are also in general agreement on the scope and program of the Conference and that these details can be settled once preparations are in progress.

I hope that action will be taken by the United Nations at the earliest appropriate opportunity so that we may proceed with our plans.

Sincerely yours,

(Signed) Glenn T. Seaborg

Chairman

Mr. A. M. Petrozlantz
Chairman
State Committee of the USSR Council
of Ministers on the Utilization of
Atomic Energy
Moscow, USSR

bcc: Chairman (2)
Commissioner Wilson
Commissioner Haworth

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Fisher, Long, Wiesner, Haworth, McCone, Webb, Murrow, Kaysen, McNaughton, Lemnitzer, Nitze, Luedecke, Keeny, Bromley Smith, Bundy, Taylor and Robert Kennedy.

The President asked me how long it will take to repair the Johnston Island launch site and finish the three high altitude tests. I said that it would take until about the end of September for the repairs and until about the end of October to finish the tests.

Nitze then gave the report requested by the President at last Friday's meeting on the problem of proliferation of weapons in the absence of a test ban treaty. He said that many countries such as Sweden, India, possibly the Union of South Africa, in addition to China and probably West Germany and Italy, could have the bomb in some seven to ten years. He said that a test ban would be a necessary, but not sufficient, condition for inhibiting the spread of nuclear weapons, and that such a spread could be inhibited only with the collaboration by the U.S. and the USSR. He said an atmospheric test ban would not inhibit the spread of nuclear weapons.

The President asked how much more it would cost and how much longer it would take for a country to develop a nuclear weapon when confined to underground testing. Several, including me, thought that the cost would be comparable. I felt that it might take a couple of years longer, but a number of others doubted that it would take any longer.

The President inquired as to the value of the fusion bomb, which might be developed by underground testing; and McNamara said it would be difficult to put this down on paper. Lemnitzer felt it would be advantageous having a fusion bomb. Wiesner indicated that there would also be disadvantages because many of the people who received radiation would be doomed to future death but perfectly capable in the meantime to carry out kamikaze tactics.

Haworth then gave the report on readiness for atmospheric testing and the report on the relative technical and military advantages of testing or non-testing under various testing constraints, both following the lines of the memoranda of June 29, 1962, requested by the President at last Friday's meeting.

Foster then talked on the basis of his memorandum of July 30, 1962, entitled "U.S. Program Regarding a Treaty to Ban Nuclear Weapon Tests and Other Disarmament Proposals." This proposes the tabling of an atmospheric test ban and an expression of willingness to accept a comprehensive test ban treaty involving internationally monitored national control posts on Soviet soil and a possible reduction in the number of on-site inspections.

This was followed by a detailed discussion on the need for inspections, which all concluded are needed, and on the number of inspections in view of the reduction of the number of interfering seismic events in Russia.

Dean said that he believes that the USSR would turn down an atmospheric test ban proposal. He said that all eight of the neutrals feel that the July 7, 1962, memorandum of the DOD on revised data for seismic detection was a diplomatic signal that we were going to table a revised comprehensive treaty; and, if we don't do so within two or three weeks, someone else, like the Swedes, will do so.

The President asked why we couldn't declassify the yields of the French and Russian underground explosions that were picked up by our seismograph network, and it was concluded that this apparently could be declassified, at least to the extent of

saying that the seismic signal was equal to magnitude 5.3 which means 90 kt. in tuff, or 40 kt. in granite.

Dean again said that he thinks the U.S. will be in a bad position at the meeting of the U.N. General Assembly in September if we haven't tabled some comprehensive treaty, even if it is one containing blank spaces. Dean thinks he can explore with V. A. Zorin alone for a couple of days the proposition to see whether they would accept any inspection at all.

Fisher and others said that the proponents of a test ban in the Senate, such as Humphrey, feel that it should be taken in two steps: first, exploration without actual numbers and then a treaty.

Dean said that we have had the new AFTAC data for more than a year, but McNamara explained that it depends on an analysis of the French and USSR underground tests, and that Romney didn't get the important idea concerning correlations with earthquakes until about the end of June.

The President at this stage seemed to agree that the best procedure would be to explore with the Russians the matter of whether they would agree to any inspections and that we would not table a comprehensive treaty with numbers in it.

The President asked how the delegates of the neutral nations at Geneva might be briefed on the new data, and Foster said that Long and Wiesner, and possibly Haworth, might go over this purpose.

Foster reiterated that he would like to table the atmospheric test ban treaty, and Bundy reiterated that Congress would be troubled if a comprehensive treaty were tabled at this stage depending solely on national detection posts.

Vice President Johnson said that many Senators have talked to him about their concern about opposition to such a treaty.

The President concluded that the same group should meet again, possibly tomorrow or the next day. He reiterated that Dean will need some changes to suggest when he goes back to Geneva.

Dean mentioned that Zorin has felt him out about the possibility of a future cut-off date, either next January 1st or July 1st, on all types of testing, to be agreed to now or very soon. This is essentially the course suggested by the Mexican delegate, Luis Padillo Nervo.

Attached is a copy of a memorandum sent by Haworth to Bundy.

Tuesday, July 31, 1962 - D.C.

I had lunch at the Metropolitan Club with Richard Reston (son of Scotty Reston, New York Times Washington correspondent) the Washington correspondent for the San Francisco Chronicle . We discussed his inaccurate article on AEC reorganization and future relationships that appeared in the San Francisco Chronicle on July 10th.

Commissioners Haworth (who made the main presentation), Wilson and I briefed the JCAE on the present status of our forthcoming report to President Kennedy on the AEC study of and recommendations on civilian nuclear power.

Susan Stamps (daughter of Sigrid Stamps who was Helen's secretary at the University of California at Berkeley), arrived by bus at 1 a.m. from a Girl Scout camp in New England. She will be our house guest for a few days.

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

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JUL 29 1962

Dear Mac:

Attached are two memoranda requested in the meeting with the President on July 27, 1962. They are:

1. An AEC prepared "Memorandum on Maintaining Readiness to Test During a Test Ban". It has been concurred in by Dr. Gerald W. Johnson, Assistant to the Secretary of Defense (Atomic Energy).

2. "Memorandum on Relative Technical and Military Advantages of Testing or Non-Testing Under Various Testing Constraints" signed by Dr. Johnson and myself. not attached

Sincerely yours,

Leland J. Haworth
Commissioner

Honorable McGeorge Bundy
Special Assistant to the President
on National Security Affairs
The White House

July 29, 1962

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NOV 86

MEMORANDUM ON MAINTAINING READINESS TO TEST DURING A TEST BAN

An important aspect of our national capability that must be evaluated in relationship to our policy with respect to a test ban, is the degree of readiness to test which we can expect to be able to maintain during a test moratorium. While we have had some experience in this regard from the 1958-1961 moratorium, it must be recognized that that period was the result of voluntary action on our part, not the result of a treaty. There is a subtle difference between these two situations which must be considered, since it will certainly be taken into account by the scientists and engineers who work in our weapons laboratories and will influence their personal motivations in varying measure.

A corrollary to the question of what testing readiness can be maintained, is obviously the question of what capability to test should be maintained, with or without a test ban. Since the actions we take will largely determine the testing capability that will exist, it is appropriate to discuss these steps, before discussing the more hypothetical question of testing capability under a moratorium.

Under conditions of a test ban agreement, atmospheric or comprehensive — or under conditions in which negotiations toward such a treaty are under way — the actions necessary to establish and maintain any particular state of readiness appear to be essentially the same. They are dictated primarily by:

a. Nature and location of the site or sites to be used.

b. Method of testing to be employed.

c. Nature of the testerical programs and technical competence which can be maintained in the weapons and weapons effects laboratories during such period.

It is clear that availability of Christmas Island is a primary key to the maintenance of a capability to conduct significant weapons development tests in the atmosphere — at least until such time as another method of testing (fully airborne or seaborne) is developed and proven. There does not appear to be a land area, other than Christmas Island,

available to the United States for atmospheric testing which is acceptable from the point of view of geographic location and isolation, physical characteristics and size, absence of indigenous population and sovereignty status. It has the further important asset that substantial facilities necessary to the conduct of a test operation are in existence on the Island, even though such facilities will require supplementation. The Island has good aircraft landing and some seaport facilities in need of improvement, reasonably good housing, plenty of land area for weapons test instrumentation, as well as effects tests, and in general has proved to be a satisfactory test site.

Our present short-term agreement with the United Kingdom for the use of Christmas Island will expire in February, 1963. It will be necessary that we enter into negotiations for a longer-term agreement which should assure its continued availability for this purpose and, hopefully, under conditions less restrictive than the present agreement. The ideal solution would be to acquire the Island if such a course of action is feasible. This would have obvious advantages: we would be in complete and unhindered control, both technically and administratively; we would be free to test on whatever time scale we chose without reference to the political concerns of the United Kingdom; and we would not be obligated to furnish the U.K. information relating to either the new designs we propose to test or the results of these tests. If acquisition of the Island is not feasible, the agreement should make provisions for use of the Island by either country for testing, with exclusive operational control by the respective country for its own tests, removal of the native population during test periods, and more flexibility in determining the condition of detonation -- i.e., on balloons, on the surface or on barges, as well as by air drop. The degree of its usefulness to us and the additional improvements in facilities to be made on the Island would be dependent upon the outcome of such negotiations.

It should be noted that the limitations for weapons testing at Christmas Island were more artificially imposed than physical, although this prevented the construction of certain technical facilities that would have somewhat improved our test capabilities. The major operational limitations were those occasioned by the presence of natives which severely restricted the amount of radioactive fallout that could be permitted to fall on the Island and required that special arrangements be made to assure their welfare.

If removal of these restrictions is not feasible, assurance that the Island would remain available to us, if only as an advance staging base, would be valuable in conjunction with an airborne-seaborne capability or in conjunction with detonations on Leased Islands (Howland-Baker-Jarvis), if this latter method should be our only alternative.

Whether or not Christmas Island remains available to us, Johnston Island can fulfill an important role in the maintenance of a capability for atmospheric testing, particularly high altitude effects testing. Its small land area limits its usefulness. However, even with these limitations, its location and the existence of limited facilities provides a unique capability for the conduct of rocket launched test operations. It would also serve as a valuable supplement to Christmas Island, airborne-seaborne capability or, if necessary, operations on other small Islands (Kwajalein-Baker-Jarvis). Our readiness posture would be enhanced substantially by improvements to harbor facilities, construction of at least one additional launch pad and extension of the landing strip. Even with these improvements, the Island will still have definite limitations due to the small land area. For this reason, the Department of Defense is studying the feasibility of ship-launched high altitude test capability which may ultimately improve this situation by providing a flexibility for rocket launching in conjunction with or independent of a fixed site.

During the conduct of Operation DOMINIC a great deal has been learned about the feasibility of conducting atmospheric tests through employment of an airborne capability, and more development effort has been directed toward suitable instrumentation for diagnostic information. The airborne testing capability would require the use of C-135 (long-range jet) aircraft for instrumentation as well as other long-range aircraft for radiochemical sampling, and possibly some ship-borne instrumentation. We believe that, if a program were undertaken now to develop such capability, aircraft, airborne diagnostic instruments and other essential elements of such a capability could be realized within six months to one year and that by this method sufficient data could be obtained to satisfy most of the requirements for developmental atmospheric testing.

The availability of an airborne testing system would lessen the requirement for overseas logistic support, would provide operational forces more flexibility in that they can move to test there weather is clear, would reduce the cost of maintaining overseas facilities and would eliminate some of the test limitations inherent in sole dependence on Christmas Island under the conditions of the present agreement. The advantages of such a testing capability are obvious, especially if the instrumentation and sampling aircraft can have sufficiently long range to be completely free of dependence on an airbase near the testing site. Weather that limits ground optics will rarely interfere with airborne optical instrumentation.

This approach offers sufficient promise that the development program should be pursued and the capability established even if Christmas

Island remains available to us. The availability of Christmas Island as a base of operations for this capability would be highly desirable, although bases in the Hawaiian Islands could also be used if necessary.

A major element — and by far the most difficult one — essential to the maintenance of an atmospheric test capability is that of maintaining a technical program and scientific competence in the AEC laboratories which will be conducive to maintaining a vigorous and imaginative effort in atomic weapons development. Maintenance of such a condition is essential in order to assure that when tests are undertaken they will be meaningfull in a weapons development sense and that highly qualified personnel will be available and willing to carry them out. The extent to which underground testing may be continued, the position taken by the United States in disarmament and test ban negotiations and the provisions of any test ban treaty negotiated will be important factors in the attitudes and, hence, capabilities of the laboratories. With the passage of time, the capabilities of these laboratories will become the controlling factor in the timing and effectiveness with which atmospheric test programs could be undertaken. This question is treated more fully in a companion memorandum of "Relative Technical and Military Advantages of Testing or Non-testing Under Varying Conditions of Agreement."

In the weapons effects area, the problem of laboratory readiness is somewhat different. Laboratories analogous to those of the AEC do not exist. Programs are implemented primarily through contractors to the Defense Atomic Support Agency. The same question of how to maintain vigorous and imaginative programs that faces the AEC exists for the DASA; however, it is not as apparent due to the more scattered nature of the effort. Continued underground testing does little to alleviate this problem for effects research.

After present roll-up operations at Christmas Island are completed, and after tests are completed at Johnston Island, it is our estimate that, with some prior planning, adequate field maintenance and the maximum readiness posture, weapons development atmospheric testing could be resumed in a period of sixty to ninety days. This period could be shortened somewhat if facilities are improved at Johnston and Christmas Islands; it might be reduced to as little as thirty days for development tests after an airborne capability has been developed, provided instrumented aircraft and other facilities were kept continuously available. We believe that, if clearly stated as national policy, this condition could be made to obtain even under conditions of a test ban for a period of at least two years; thereafter, it would be dependent upon many factors which cannot now be assessed.

To maintain a readiness capability for the conduct of weapons effects tests poses additional and in many ways more complicated problems than weapon development tests. As the DOMINIC experience has clearly indicated, to maintain a high altitude short-lead-time capability requires development of facilities, firing of missiles in the planned experimental configuration, and the check-out of the range safety control systems prior to initiation of the tests. As time passes, revisions in technical objectives will lead to the need for modification of the field installations.

To be ready to conduct such experiments, and their complexity will increase as we focus more and more on penetration and ABM problems, will require the detailed design of experiments and the field installation of measuring equipment. The development and installation of equipment to measure such high altitude effects may require preparation time of up to eighteen months.

The following specific courses of action are recommended:

a. Explore with the United Kingdom the feasibility of acquiring Christmas Island. If acquisition is not feasible, initiate negotiations for future use of Christmas Island on terms less restrictive to the United States than in the present agreement. Such improvements to the facilities as may be appropriate would be undertaken upon completion of the agreement.

b. Proceed with development of instrumentation for diagnostic measurement, with the equipping of suitable aircraft and with planning and logistic support requirements which will result in realization of an airborne atmospheric test capability with, at most, a thirty-day readiness reaction time.

c. Initiate construction at Johnston Island to provide for additional high altitude missile launching facilities, improvement of the harbor and certain other support facilities.

d. Development of full test facilities including instrumentation, firing of missiles in the planned experimental configuration without nuclear warheads, and check-out of the range safety control systems.

e. Proceed with development of instrumentation and equipping of two suitable ships for the creation of a seaborne capability, particularly for effects testing and as a supplement to the airborne capability.

f. Maintain the nucleus of a test organization with the capacity to assure maintenance and improvement of plans, facilities and equipment required for this readiness posture.

Wednesday, August 1, 1962 - D.C.

At 9:35 a.m. I presided over Information Meeting 181 (notes attached). Apparently we face strikes at Rocky Flats (Dow Chemical), at the Nevada Test Site (iron workers) and possibly on the NS Savannah.

I had lunch with Lee Haworth and General Luedecke at the Roger Smith Hotel.

I called Secretary Zuckert to give him some explanation as to why we have been delaying on the SNAP-50. I said we have been talking to Webb to try to get him to go along with us, and he has said he will give us an answer one way or another very soon. I said I feel, if in the long run we don't have him with us, we might have a poor chance of any getting any agreements to stick. Gene agreed with me. I asked him about Webb's inference that perhaps McNamara isn't about to agree to an interagency agreement. Gene said he doesn't know; that he has been talking to Brown and Rubel and they don't know either. Gene said he will wait this out.

I wrote to Ralph Dungan, Special Assistant to the President, to suggest possible candidates for the Commissioner of Education: William B. Fretter, University of California, Berkeley; O. Meredith Wilson, University of Minnesota; John E. Willard, University of Wisconsin; Edward W. Strong, University of California, Berkeley.

At 4 p.m. I presided over Commission Meeting 1863. We approved Minutes of Meetings 1856, 1857 along with the Minutes of the 135th AEC-MLC Conference. Approval of the Minutes of Meeting 1858 was deferred. The Commissioners approved the following: 1. safety Criteria for storage, handling and transportation of weapons, 2. extension of contract with Holmes & Narver, 3. proposed extension of contract with J. A. Jones Construction Company (approved subject to negotiation of a fee not to exceed $105,000 per annum).

From 4:45 to 5:30 p.m. I attended a meeting with the President on disarmament in the Cabinet Room of the White House. Others present were: Vice President Johnson, Rusk, McNamara, Foster, Dean, Fisher, Frank Long, McCone, Wiesner, Keeny, Haworth, Webb, McCloy, Lovett, Murrow, Taylor, Lemnitzer, Nitze, Bundy, McNaughton, Robert Kennedy and Bromley Smith.

The President read a letter from Prime Minister Macmillan saying that he continues to feel that further nuclear tests are not needed, that a test ban is urgent, and that such a test ban could be fully effective with much less controls than the U.S. seems to think necessary. The letter also indicated that the possible U.S. use of Christmas Island again should be negotiated at the time that it is needed, possibly involving future governments of the two countries.

Dean pointed out that the Swedish delegate, Mrs. Alva Myrdahl, has suggested an atmospheric test ban. The President raised the question whether we should now agree to a future date for such a test ban. It was generally agreed that we could accept such a future cut-off date, but it should not be earlier than June 1, 1963.

The discussion then ranged around the details of a comprehensive test ban that the U.S. might explore at Geneva. For this and other parts of the meeting, the ACDA Memorandum to the President, dated August 1, 1962 (copy attached), entitled, "U.S. Program Regarding a Treaty to Ban Nuclear Weapons Tests and Other Disarmament Proposals (as revised)," served as somewhat of a basis for discussion.

Long indicated that the proposed new detection system, with about 25 seismic

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

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COPY NO. 11

August 1, 1962

INFORMATION MEETING 181

9:35 a.m., Wednesday, August 1, 1962 - Chairman's Office, D. C.

1. Testimony for the Joint Committee August 2 Hearings on the IAEA.

The Chairman noted copies of Dr. Haworth's testimony have been circulated to the Commissioners.

✓ 2. July 31 Press Release on Operation DOMINIC.

The Commissioners requested clarification of statements re test preparations and Dr. Haworth said he would discuss the matter with Mr. Bundy.

8/10 8/15

✓ 3. Draft Letters to the President re DOMINIC and NOUGAT.

The Commissioners requested revised language highlighting the significance of the RIPPLE event and review by Dr. Haworth prior to transmittal. (Betts)

4. Draft Letter to Mr. Bundy re Materials Production.

The Commissioners agreed Dr. Gerald Johnson should see the letter prior to transmittal. (Henderson)

(Dr. Haworth left the meeting at this point)

5. Reply to Oliver Townsend's Letter of July 6, 1962 (see AEC 1035/12 - Agreement Between New York State Atomic Research and Development Authority and Nuclear Fuel Services, Inc.)

The General Manager said discussions have been held with Mr. Townsend and Davison Company representatives, and that a proposed reply will be available soon.

6. AEC Quarterly Report on Reactors.

Dr. Wilson requested consideration of a revised type of reporting. (Pittman)

7. General Manager's Report on Rocky Flats, NTS (Iron Workers), and NS SAVANNAH Strikes.

8. Appointment of AEC Scientific Representative, U.S. Embassy, London, England.

The Commissioners had no objection to the proposed appointment.

9. Request of Government of South Africa for Lease of Heavy Water.

The Commissioners had no objection.

10. Letter to General Lemnitzer re Study of Technical Weapons.

The Chairman signed the letter for dispatch today.

11. Draft Letter to Secretary Celebrezzi re Radiation Guidance for Federal Agencies.

Dr. Wilson said he would review the letter with Mr. Price.

PRESENT

Dr. Seaborg
Dr. Wilson
Dr. Haworth*
Gen. Luedecke
Mr. Henderson
Mr. McCool

DISTRIBUTION

Commissioners
General Manager
General Counsel
Secretary

W. B. McCool
Secretary

* Partial attendance.

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NOV 86

UNITED STATES ARMS CONTROL AND DISARMAMENT AGENCY

August 1, 1962

MEMORANDUM TO THE PRESIDENT

Subject: U. S. Program regarding a Treaty to Ban Nuclear Weapons Tests and Other Disarmament Proposals. (as revised)

The Committee of Principals met on July 26, 1962, and with you on July 27 and 30, 1962, to consider issues which are outstanding in the disarmament negotiations now going on in Geneva. At that meeting, we considered various lines of approach with respect to negotiations for a ban on nuclear weapons tests in the light of recent developments of a technical and political nature.

The principal political development has been the tabling, on April 16, 1962, of a memorandum by the eight non-NATO, non-Warsaw Pact, delegations. This memorandum suggests that nationally-operated seismic stations should be the basis of any test ban agreement and contains a statement on on-site inspections which can be interpreted as either obligatory or invitational.

There have been two technical developments. The first was a reassessment indicating a better capability for long-range seismic detection ~~capability~~ which will make it possible to detect events in the USSR from stations outside that country. The second was the determination that the number of earthquakes which might produce unidentified events comparable to an underground nuclear test of a given magnitude had been substantially reduced above the previous estimate -- by a factor between $2\frac{1}{2}$ and 3.

These developments are significant in three respects. First, the increase in the long-range detection capability makes it possible to develop a system of seventy to eighty stations, including some twenty-five core seismic stations, internationally-supervised but nationally-manned. This system would have a detection capability not significantly different from that originally contemplated for the 180 internationally-operated stations planned for the "Geneva" system. Second, the decrease in the number of unidentified events with which a detection system will have to cope will make it possible to decrease the number of on-site inspections required for verification. Third, these developments do not provide a way of determining from seismic data that a particular suspicious event was an underground explosion and therefore do not eliminate the requirement of on-site inspections as an essential element of any system of verification.

On balance, it is my judgment that the overall risks to the security of the United States would be less under a comprehensive test ban treaty based on the detection system described above and with a number of on-site inspections lower than that we have been discussing in the past than they would be under the indefinite continuation of nuclear testing by the U. S., the U.S.S.R. and other countries. I believe that this conclusion is reinforced by the material submitted to you by the Department of Defense. On balance, however, I would not recommend the tabling of such a treaty at the present time. I have three reasons for this latter conclusion.

First, our thinking on the number of on-site inspections has not progressed to a point where there is any particular number lower than the figure of 12-20, which is now on the table, which we could defend against both the neutrals who would want it lower and the congressional critics who would say it is too low already.

Second, as long as the Soviet Government holds to its present position that there should be no on-site inspections, there are disadvantages to talking specific numbers lower than those discussed before.

Third, domestic opinion, particularly Congressional opinion, is not prepared for such a move. A treaty based

on a reduced number of nationally-operated, internationally-supervised seismic stations with a reduced number of on-site inspections represents a substantial scaling down of safeguards that this administration and the prior administration have been insisting was the minimum necessary for national security. It is based on information which has only been available outside of the Department of Defense since July 3 of this year, and this information has been very skeptically received in the legislative branch of the Government. Our best information is that if a modified comprehensive treaty were to be tabled at this time, Congressional leaders, whose support would be essential at the time of ratification if agreement were to be reached, would take public positions adverse to the proposals. Similarly, the tabling of a modified comprehensive treaty now without further domestic political preparations might result in its becoming an issue in the Fall Congressional elections.

On the basis of these considerations, I recommend the following course of action:

a. Comprehensive Test Ban. The United States should declare its willingness to discuss a comprehensive test ban treaty involving internationally-supervised national control posts on Soviet soil and involving a possible reduction in the number of on-site inspections. We should be prepared to provide the Conference with as much recent data as we can relating to detection, location and identification capabilities of internationally-supervised national systems while making the point that this data does not eliminate the need for on-site inspections. We should avoid proposing specific numbers either of stations or of on-site inspections on the ground that we see no point in suggesting or debating details or numbers until the Soviet Union accepts the principle of on-site inspections. However, at the proper time, we should be prepared to discuss the range of possible numbers of inspection stations, and to indicate in general terms a willingness to relate the number of on-site inspections to the number of unidentified events.

b. Atmospheric Test Ban. If the Soviet Union continues to indicate unwillingness to accept obligatory on-site inspections on Soviet soil, the United States should table an atmospheric - outer space - underwater test ban treaty, possibly around the end of August, taking the position that the Soviet refusal to agree to on-site inspection makes it necessary to go to this type of treaty.

c. Soviet Testing. In the event the Soviet commences an atmospheric series we should continue to

indicate willingness to negotiate in both areas (a) and (b) above but should indicate that we might wish to conduct further tests ourselves if the Soviet series produced extraordinary results.

d. Domestic Political Preparation. The decision to table a revised comprehensive treaty should await the developments both at Geneva and in this country. A major campaign of domestic information and political preparation should be begun as to the new data and its significance.

e. No-transfer Agreement. The United States should press for a world-wide agreement banning the transfer or acquisition of nuclear weapons or nuclear technology. This course of action would be related practically, but not organically, to the other courses of action.

f. Underground Testing. We should continue our underground testing program until a comprehensive treaty has been achieved.

g. Readiness to Test in the Atmosphere. We should, to the extent feasible, maintain readiness to test in the atmosphere. This will involve discussions with the U. K. as to the continuing readiness of Christmas Island as a test site.

The following modifications of U. S. positions on general disarmament have been agreed to by the interested agencies and are recommended for your approval:

Stage I Production. Production of armaments during Stage I should be limited to replacement and repair of existing armaments. Replacement would be "in kind." The amount of production would be reduced at least as much as the reduction of armaments. Production of new types of weapons, of prototypes, and of new armament production facilities would be prohibited.

Bases. The United States should state at the Geneva Conference that it would be willing to discuss the possibility of a Stage I reduction of military bases but that any such discussion should take place only after

substantial progress has been made toward reaching agreement on the central problems of reducing armaments and armed forces and on verification and other measures providing necessary safeguards in a disarming world.

Transition. The decision on transition should be made by a 2/3 vote of the Control Council of the IDO, including concurring votes of at least the United States and the Soviet Union, rather than by the Security Council. Criteria for transition would be better defined than those set forth in the U. S. Outline but would be sufficiently broad to permit a negative vote for reasonable cause.

(signed)

William C. Foster
Director

Enclosure:

U. S. Program regarding a Treaty to Ban Nuclear Weapons Tests. (as revised)

stations, with or without some in the Soviet Union, was about as good as the previous Geneva system (which had a much larger number of stations).

Dean said that, with respect to queries as to the number of on-site inspections that we would insist upon, he could say that we will relate that number in some way to the number of unidentified events in the Soviet Union.

The President raised the question as to whether Dean might say that the U.S. would sign an atmospheric test ban if it were effective tomorrow. If it isn't effective immediately, we will have the problem of determining the effective date.

Kaysen expressed concern that such offers of an atmospheric test ban would undercut the status of the comprehensive test ban.

The group then went on to discuss the adjustments in general disarmament with respect to Stage I production and reduction of military bases. Production would be limited to replacement "in kind;" Lemnitzer had problems with this. Lemnitzer also felt that the reduction of military bases was an unfair contest and that this shouldn't be discussed unless there was substantial progress in the entire field of disarmament.

The President asked Dean what his general plan of technical and political briefing of Geneva delegates would be. Dean said that he would keep it on the political level for about a week and then bring scientists to Geneva about August 9th.

It was agreed that the guidelines for briefing the press regarding this meeting would be to limit what was said to issues covered by the President in his press conference today.

The President suggested that Dean, Foster and Rusk see members of congressional committees tomorrow, such as, the JCAE, Foreign Relations Committee, Committee on Armed Services, Humphrey's committee, etc.

Dean said that he doubts that the Soviets have changed their position with regard to inspection and that they will have problems with the concept of internationally supervised national systems which will be discussed; and, if its attainment seems possible, the U.S. would table an atmospheric test ban treaty. If the Soviets start atmospheric testing, we would reserve the right to conduct further tests ourselves and possibly agree on a future mutually agreeable cut-off date.

Thursday, August 2, 1962 - D.C.

At 10 a.m. I met with Dr. Thomas O. Jones (National Science Foundation - formerly a member of my World War II Met Lab group) who, with his group, has an interesting and important research project in mind for which they need a nuclear submarine to gather data below the ice. I called Rickover's office as a first step in trying to arrange this.

At 11 a.m. I attended an AEC-MLC conference. Others present were: Major General Charles Westover, Rear Admiral William E. Ellis, Brigadier General Ralph L. Wassell, Brigadier General William T. Ryder, Brigadier General John W. Keating, Captain John Beling and Gerald Johnson (MLC), Commissioners Haworth and Wilson, General Luedecke, General Betts and other AEC staff. We heard a briefing on the safety and security of MINUTEMAN and the problem of transmittal of atomic information to France, Italy and the Netherlands. Since the AEC is holding up on this, pending a determination of the dispersal problem by the President, we decided to write a joint letter to the President to obtain a settlement.

I had lunch at the Metropolitan Club with Scotty Reston, John Finney and Tom Carroll (GWU President) to discuss means of building up science at the George Washington University as suggested in my PSAC Panel report.

At 2:30 p.m. I attended JCAE hearings on the Smyth Committee Report on the U.S. program in the IAEA. Haworth, Smyth, Cleveland and others testified. I responded to a few questions.

I met with Ted Brown, Phil Abelson and Charles Robbins to discuss plans for a 20th anniversary observance of the first nuclear chain reaction during the November 16th-18th meeting of the ANS and AIF (in Washington). The plans include inviting President Kennedy and Vice President Johnson to participate. I will explore these possibilities.

Helen and I attended a farewell reception for John McGruder at the Naval Officers Club in Bethesda. Lewis Strauss, General Luedecke, McGruder and I spoke briefly.

Friday, August 3, 1962 - D.C.

The Commission met with Donald Alexander (Maritime Administrator) and we obtained an agreement on the conditions under which the NS Savannah can enter the ports of Savannah and Seattle. The reactor is to be shut down for hotel load in port when there are more than 300 visitors aboard.

I called Gifford and told him of our meeting with Alexander and that we plan essentially to go along with the recommendation of the ACRS. I said the issue, of course, will be what constitutes large numbers of people with regard to shutting down the reactor, but we think it might have to be shut down in Seattle. We told them that by large numbers we meant the normal complement, including visitors, plus crew, that they have about 120 in the crew when they are out, and about half of that number when they are in port, and that they have had up to 150 visitors on cruises. This then would mean that the number on the ship, including crew and visitors, would be no more than the routine number on cruises.

Gifford said this is what he had in mind personally, and he thinks that this carries out the intent of the letter. I told Gifford that, as far as the press is concerned, we intend to be a bit general on the numbers, but we will say that we have had discussions with the ACRS and the Maritime Administration and that we are principally going along with the recommendations of the ACRS, with Maritime concurrence. I suggested that, if they have calls from the press, they might say something along the line that there is no difference of opinion, which I think is essentially true.

I met with Margaret Comer of Hutchinson, Minnesota, who is this year's AEC Chairman of Girls' Nation. I gave her an autographed copy of Elements of the Universe.

At 11:15 I presided over Information Meeting 182 (notes attached).

I had lunch with Howard Brown at the Roger Smith Hotel.

We heard today that the President is appointing Jim Ramey and John Palfrey (Dean of Columbia Law School) to fill the vacancies on the Commission. The announcement will be made Monday.

From 2 p.m. to 3 p.m. I attended a meeting of the NSC Standing Group in the Situation Room of the White House. Present were: Alexis Johnson, Dave Bell, Ros Gilpatric, Bromley Smith, Mac Bundy, Charles Johnson, General Luedecke, Willis Shapley, Fred Schuldt, Jerry Johnson, Ray Cline (CIA) and others. It was decided

Girl's Nation 1962

Seaborg with Margaret (Peg) Comer, 1962 AEC Chairman of Girls' Nation, AEC H Street Office, August 3, 1962

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

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COPY NO. 13

August 3, 1962

INFORMATION MEETING 182

11:15 a.m., Friday, August 3, 1962 - Chairman's Office, D. C.

1. Letter to BOB Director Bell re $23 Million of FY 1963 Weapons Production Funds Held in Constraint.

The Chairman signed the letter for transmittal.

2. July 3 Letter from Mr. Doan re Commissioner's Speech at Atomic Industrial Forum, November 1962.

The Chairman noted that Dr. Haworth will deliver the speech.

3. Report re DOMINIC and NOUGAT.

The General Manager said he is reviewing the letters.

4. Management of Advance SNAP-50 System.

The Chairman reported that in a conversation with Secretary Zuckert, Mr. Zuckert agreed that the management proposals must include further discussions with Mr. Webb.

5. Agenda for the Week of August 6.

Approved as revised. (Secy)

6. GAC Report on Project SHERWOOD.

Dr. Wilson drew attention to the GAC comments on the SHERWOOD project and the Chairman noted the need to follow up on the matter.

7. Reactor Study Comments.

The Chairman requested consideration of the use of the GAC seminar reports and suggested review of Commander Bausser's analysis.

8. Chairman's Call to Dr. Gifford, ACRS.

9. Report on the Economics of Manufacture of Isotopes by the Centrifuge Process.

Dr. Wilson commented on the report of De Gussa's decision.

10. Status of Gas Cooled Reactor Project (EGCR).

Dr. Wilson commented on the status of the project.

11. Chairman's Afternoon Meeting with Mr. Bundy to Discuss Materials Production and Other Matters.

12. Exchange of Information with the UK re Nuclear Core Development.

The General Manager said he had discussed this matter with Admiral Rickover and a draft letter from the Chairman to Sir Roger Makins is in preparation.

13. Labor Situation at NTS and Rocky Flats.

The General Manager reported a number of iron workers were not on the job yesterday at NTS and that the labor force is still on the job at Rocky Flats but the matter is not settled.

14. Rice University Symposium on Natural Radiation Environment.

The Commissioners had no objection to the General Manager's proposal for AEC support.

15. Third International Symposium on Immunopathology, La Jolla.

The Commissioners had no objection to the General Manager's proposal for AEC support.

16. General Manager's Report on Accidential Release of PU-238 at Mound Laboratory.

17. Radiation Incident at Clarksville, Tennessee.

The General Manager reported on the rupture of barrels in transport from Texas Southwest Medical School to Oak Ridge and said AEC representatives had cleaned up the area and that a report had been made to L and R.

18. NS Action Memorandum No. 176 dated August 1, 1962.

Noted.

19. Proposed Amending Authorization re Third Round Reactor Proposals.

Mr. Hennessey reported on Senator Pastore's statement in the Senate, indicating that the Joint Committee considers the present authorization contains flexibility for the AEC to proceed.

PRESENT		DISTRIBUTION
Dr. Seaborg	Gen. Luedecke	Commissioners
Dr. Wilson	Mr. Hennessey	General Manager
Dr. Haworth	Mr. Brown	General Counsel
	Mr. Henderson	Secretary
	Mr. McCool	

W. B. McCool
Secretary

that, if at all possible, the weapons budgets for 1965 and 1966 should be determined this fall. It was also determined that the question of power requirements for the immediate future for uranium enrichment and the matter of procurement of uranium ore after 1966 should also be resolved. The AEC is to prepare a letter to the President, based on Case I of the memorandum I sent to Bundy on August 1st, but also mentioning the possibilities of Case II and another case in the opposite direction of smaller production. This letter should also mention the possibility of uranium stretch-out on the incentive basis for the purchase of additional uranium at lower prices.

With respect to the reorganization of the Commission, the Commission is to prepare a plan, which will be hopefully ready by October. The actual form of the presidential recommendation to Congress remains to be determined. The best procedure might be to allow the initiative to come from within the JCAE.

With respect to the restricted data problem, the AEC is to prepare a paper for review by BOB, DOD and State as a basis for action to improve the situation. More than mere gentle improvements are required, and it is urgent that things that can be done within the law be done immediately.

It was pointed out that there will probably be another executive hearing before the JCAE on the NATO question and permissive links, perhaps as early as August 9th.

From 3 p.m. to 4:30 p.m. I attended a meeting of the Space Council in Vice President Johnson's office. Present were: Vice President Johnson, Webb, McNamara, Robert Wilson, McGhee, Harold Brown, Dryden, Welsh, Halaby, Fritsch and others.

Halaby made a presentation on the problems facing the introduction of production of advanced aircraft, such as supersonic aircraft. Discussed were production problems and costs and the amount of government subsidy that might be needed. The Vice President suggested that DOD, NASA and FAA get together and work out a market and cost estimate for three-mach supersonic aircraft within two or three months so that the data could be used in connection with the 1964 budget.

Dryden then gave a summary of the aeronautical research in NASA and in the former NACA.

I sent a letter to Pete Quesada to thank him for taking all of us to the baseball game last Sunday.

Saturday, August 4, 1962 - D.C.

I worked at the office in the morning. In the afternoon and evening I read journals, worked on AEC papers, on the civilian nuclear power report, on speeches and on my high school book on transuranium elements.

There was a small Russian nuclear test in the atmosphere today which we may not announce.

Sunday, August 5, 1962

I spent the day at home working on the civilian nuclear power report, which is due on September 1st and on the high school book on transuranium elements. I also worked on the draft of the speech prepared by Dan Wilkes which I will give at the IAEA General Conference in Vienna.

The Russians detonated a large nuclear weapon (20-40 MT range) in the atmosphere over Novaya Zemlya at 5:25 a.m., EDT. This is the beginning of their atmospheric

testing series.

Helen and the kids went to Great Falls in the late afternoon.

Monday, August 6, 1962 - D.C.

The AEC announced that the size of yesterday's Russian explosion was about 30 MT and that it was preceded by several low KT explosions during the past few days.

Frank Pittman came in, and we worked on the civilian nuclear power report.

At 10:15 a.m. I presided over Information Meeting 183 (notes attached). We learned that essentially all the iron workers are back to work at NTS, that work is proceeding at Rocky Flats although no settlement has been made, and that the crew of the NS Savannah is essentially on strike.

I had lunch at the Lawyers Club with Larry Olson.

I called Wiesner and told him that ANS-AIF would like to have the President participate in their 20th anniversary celebration of the first chain reaction and that the AEC would like to have him make the Fermi Award presentation on December 3rd.

I called Jim Webb about the SNAP-50 program. He doubts that we should get on with the matter of an organization until some technical problems are solved. On the other hand, I told him that the organization is necessary because AEC already has the old ANP indirect cycle program going on SNAP-50 and will keep it going, and that the users (NASA and Air Force) should get in on the planning. He questioned whether Brown and McNamara think this is worth spending money on. After reiterating my feeling, I said that I would call Brown to determine his position. Webb feels that the first step is for the AEC to come up with written comments on Abe Silverstein's document, distributed at the recent Air Force briefing. Following, Haworth and I will comment on the state of the art of the SNAP-50 program. I pointed out that there is a limit on how much time Haworth and I can devote to this but that Frank Pittman and others are well acquainted with the details. In summary, I told him I will check on the Silverstein document and talk to Brown to determine his feelings.

I called Harold Brown and told him that I have been talking with Webb and Zuckert about the SNAP-50 program. I told him that Webb isn't convinced that he (Brown) feels that SNAP-50 should go forward. Brown said that, on a purely personal basis, he feels that both NASA and the Air Force are wrong. NASA wants to go ahead with component development and Air Force wants a system. He said he told Air Force that he would go ahead with it if they can work out an arrangement with the AEC and NASA. I said I have been talking to Zuckert and on that basis I have decided not to sign the bilateral agreement with Air Force (not that I wouldn't if Webb definitely signed off as being not interested). Otherwise, nothing we sign would stick. Brown said that he is willing to have an organization but he would not agree to commit now to an expenditure by the Air Force of, say, $70 million over the next four years. Brown says he doesn't think Zuckert would agree either, and if he did, McNamara would insist on checking it. I said we are proposing a three-sided office, an administrator from AEC and an associate administrator from both NASA and Air Force. Brown said he will go along with this and thinks Zuckert will too. Brown suggested I write up a proposal and send it to Webb and Zuckert to see what happens.

I was interviewed by Owen Scott (Executive Editor), Carson Lyman (Managing Editor) and Marvin Stone (atomic energy writer) of U.S. News and World Report, in their

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

UNCL. BY DOE NOV 86

COPY NO. 13

August 6, 1962

INFORMATION MEETING 183

10:15 a.m., Monday, August 6, 1962 - Chairman's Office, D. C.

1. USSR Tests.

2. Meeting of the Standing Committee.

The Chairman reported on his and the General Manager's attendance at the meeting of the Standing Committee on Friday, August 3.

3. JCAE Hearings on NATO and Permissive Links.

4. Labor Problems.

The General Manager reported: a) he had no information concerning an agreement with the crew of the NS SAVANNAH; b) essentially all iron workers are back to work at NTS; c) negotiations are continuing at Dow Chemical but work has not been interrupted yet.

5. Meeting of Space Council.

6. Hearings re Government Contracting for Research and Development.

7. Measurement of Fundamental Properties of Gravity.

The Chairman suggested the proposal be reviewed at UCRL.

8. Dedication of Canadian MPD Reactor.

The General Manager said he planned to attend and would so advise Mr. J. L. Gray.

9. Exemption of Attorney Members of Patent Compensation Board.

The Commissioners had no objection to the General Manager's proposal.

10. IAEA Inspection of Thai Reactor.

11. Contract for Design and Construction of Stanford Linear Accelerator.

The General Manager noted the two points on which negotiation was continuing.

12. Presentation to BOB on Reactor Study.

13. Draft Statement for IAEA General Assembly.

The Chairman requested review with the Department of State of several policy questions noted in the draft. (Henderson)

PRESENT

Dr. Seaborg
Dr. Wilson
Gen. Luedecke
Mr. Hennessey
Mr. Brown
Mr. Henderson
Mr. Anamosa

DISTRIBUTION

Commissioners
General Manager
General Counsel
Secretary

Harold D. Anamosa
Acting Secretary

building at 2300 N Street. They asked me questions on nuclear testing, nuclear power for civilian uses, nuclear power in space, isotopes, etc., for publication in U. S. News and World Report magazine.

Jerry Johnson came in to see me and told me that Harold Brown and Secretary McNamara want me to know that they would like the AEC to consider the possibility of developing a nuclear device weighing 10,000 lbs. for use as a warhead on the TITAN II missile of maximum possible yield, to be tested as an air drop, possibly with airborne instrumentation in the Johnston Island danger area during the period of the three forthcoming high altitude tests.

I called Webb again to tell him of my conversation with Harold Brown, etc. Webb proposed a meeting of AEC and NASA experts--possibly a two- or three-day workshop to be held at one of our laboratories. I agreed to such a meeting, but asked it be held at the AEC office here in Washington. He said maybe the Air Force could be drawn in on the meeting which would be for the purpose of seeing where our people agree and where they disagree. Webb and I would then get together on the basis of that report and go on to the problem of organization.

The appointments of Ramey and Palfrey to the Commission were announced in the newspapers this morning. Wilson agreed to remain on for a month or two with the possibility he visit European and U.S. atomic energy sites. He insists he will resign at the end of that time.

Helen drove Susan Stamps to Friendship Airport where she boarded a plane to San Francisco.

Peter, Lynne, Dave and Steve attended a youth concert on the White House south lawn. President Kennedy addressed the group.

Tuesday, August 7, 1962 - Germantown

I called Wiesner to tell him I just learned that Secretary Celebreeze is to make a statement at 10:30 a.m. on the Utah radioactive milk situation (diverting milk supplies from certain areas so they won't be used as fresh milk).

I said that the bothersome point is that Celebreeze will state that this action is based on the guidelines recommended by the FRC, drawn up during the nuclear test moratorium and accepted by President Kennedy last September. I said that the point should be clearly made that these are so-called normal peacetime standards. Wiesner said he will check with the White House regarding this statement.

Wiesner called me back later to tell me that Pierre Salinger checked and learned that this is not an automatic statement, but rather will be held in reserve in case Celebreeze is questioned on the matter at his press conference.

Chris Henderson had a call from Dr. Thomas Jones (NSF) who told him that he talked with Admiral Rickover regarding the use of a nuclear submarine for his research project. Jones said that Rickover is very interested and said he would support it, but he is not in a position to approve the project. Jones said they will prepare a paper and present it to the White House.

I called Zuckert regarding my telephone conversations yesterday with Jim Webb and Harold Brown on the SNAP-50 program. I told him of the meeting that Webb proposed and he agreed to it.

I had lunch in the cafeteria with Ed Bloch, Paul McDaniel and Dan Miller.

I met with the assistant general managers to further discuss policies in connection with long-range planning.

I wrote a letter to Dr. Lindon Seed to thank him for the Certificate of Honorary Membership in the Society of Nuclear Medicine.

Wednesday, August 8, 1962 - Germantown

At 10:15 a.m. I presided over Information Meeting 184 (notes attached). The Commission discussed the memorandum from Jerry Johnson which proposed an AEC-DOD agreement on how to conduct weapons effects tests. Jerry also passed on to me a request from Gilpatric for AEC reaction to the U.S. selling France a skipjack type nuclear submarine. There will be problems with this, but we won't interpose objections at this point. Livermore Laboratory has requested permission to test two more advanced, large yield weapons, via air drop and with airborne diagnostics in the Johnston Island area. AEC will explore this with the White House before proceeding further.

We agreed with the White House on the procedure of announcing Soviet tests--those above 20 KT underground and above 10 KT in the atmosphere.

Wiesner called and said he sent my letter regarding the November ANS-AIF meeting to the President with the recommendation that he participate. Wiesner then asked me about several names he has recommended for the directorship of NSF, i.e., Melvin Calvin, Bill Fretter, John Wilson (Beadle's assistant at the University of Chicago).

I was interviewed by Richard Reston (San Francisco Chronicle) on AEC accomplishments since I became Chairman.

I had lunch with Joseph Stephenson (Scientific Attache, British Embassy), Howard Brown and Chris Henderson.

At 3 p.m. I presided over Commission Meeting 1864 (action summary attached).

I was interviewed by Arthur White of Time magazine on the Ramey and Palfrey appointments. I explained to him that there hasn't been a split between scientists and lawyers on the Commission.

Thursday, August 9, 1962 - D.C.

I had breakfast with Congressman Holifield in the Congressional Hotel restaurant. We discussed AEC's plan to announce, in an exchange of letters between Holifield and me, the plan to buy back plutonium at $8 per gram after July 1, 1963.

Commissioner Wilson, Commissioner Haworth and I, accompanied by Frank Pittman, Don Stewart, Arnie Fritsch and others, met with Bell, Staats, Schuldt, Veitch, Hanson, Wiesner and Keeny at the BOB to present AEC's report to the President on civilian nuclear power which is due September 1st. The main presentation was made by Commissioner Haworth. It seemed to go pretty well as they began to understand our proposed emphasis on breeders with a program of government-industry built prototype non-water converters at an adequate rate in the interim.

At noon I met with Staats and Bell in Bell's office and replied verbally to the August 6th letter (copy attached) from Staats. I said that with respect to fees for universities I have in mind large contracts only for universities running large laboratories; situations like AUI and the University of Chicago which run Brookhaven and Argonne. I told them about the AUI request for a fee, and I said

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

COPY NO. 18

August 8, 1962

UNCL. BY DOE
NOV 86

INFORMATION MEETING 184

10:15 a.m., Wednesday, August 8, 1962 - Chairman's Conference Room A-457

1. IAEA General Conference.

Commissioner Wilson will attend as a member of the U. S. Delegation.

2. SNAP-50 Program.

The General Manager is attempting to set up a briefing of Air Force and NASA personnel at 2:30 p.m., August 15.

3. Atomic Industrial Forum - American Nuclear Society Meeting.

The Chairman has referred to the White House the request that the President attend the annual meeting in November.

4. Soviet Tests.

The proposed procedure for announcements was discussed.

5. Plutonium Buy-back.

The Chairman requested preparation of a letter which he could give to Chairman Holifield tomorrow morning proposing extension of buy-back provisions. (GM)

6. Actions Resulting From Meeting of Standing Committee.

The Chairman referred to the three requests for action involving the AEC. (GM)

7. Radiation Protection Guides Established by FRC.

Dr. Haworth will review the proposed letter to Chairman Holifield. (Henderson)

8. Proposed AEC-DOD Weapons Research.

Dr. Haworth will review the proposed reply to Dr. Johnson. (Henderson)

9. Add-ons for DOMINIC.

The Chairman requested review of the memorandum from Dr. Johnson and the laboratory proposals. (GM)

10. Southwest Atomic Energy Associates.

The Commission requested that a letter be sent to SAEA indicating interest in their program and requesting submission of a proposal. (Pittman)

11. Norwegian Halden Reactor Project.

The General Manager will study further the proposed response to Dr. Randers.

12. Third Round Reactor Invitation.

The Commissioners requested copies of the proposed invitation for review. (Pittman)

13. Housing at Oak Ridge.

The Commissioners wished to review the proposed letters regarding racial discrimination in housing at Oak Ridge. (GM)

PRESENT		DISTRIBUTION
Dr. Seaborg	Gen. Luedecke	Commissioners
Dr. Wilson	Mr. Hennessey*	General Manager
Dr. Haworth	Mr. Ferguson*	General Counsel
	Mr. Henderson	Secretary
	Mr. Anamosa	

Harold D. Anamosa
Acting Secretary

* Partial attendance.

OPTIONAL FORM NO. 10
5010-104
UNITED STATES GOVERNMENT

UNCL. BY DOE
NOV 86

Memorandum

TO : A. R. Luedecke, General Manager

DATE: August 9, 1962

Approved
A. R. Luedecke
Date

FROM : Harold D. Anamosa, Acting Secretary
H. D. Anamosa

SUBJECT: ACTION SUMMARY OF MEETING 1864, WEDNESDAY, AUGUST 8, 1962, 2:55 P.M., ROOM A-410, GERMANTOWN

SYMBOL: SECY:JCH

Commission Business

1. Minutes of Meetings 1859, 1860 and 1861

Approved as revised.

2. AEC 25/211 - Proposed Modifications to Air Force Safety Rules

Approved. (Betts)

3. AEC 181/96 - Fixed Fees Based on Estimated Costs of Services for Cost-Plus-Fixed-Fee Architect-Engineer Contracts

Approved. (Vinciguerra)

4. AEC 843/23 - Modifications of the Access Permit Program

Approved. (Tremmel-Pittman)

Commissioner Wilson requested further review of the Program in the event abuses are noted. (Tremmel-Pittman)

5. AEC 780/16 - Additional Awards for Especially Meritorious Contributions to the Development, Use or Control of Atomic Energy

Deferred.

The Secretary will reschedule AEC 780/16 at an appropriate time.

The Commission requested informal review with the White House and appropriate science agencies. (Tackman)

6. AEC 983/3 - Sale or Lease of Heavy Water to Other Government Agencies

The Commission approved your recommendations.

I will schedule the Minutes of Meeting 1858 for approval at the next Meeting.

7. Contract Negotiations with the University of California

The Commissioners had no objection to your proposal. You said you would give a copy of the contract to Mr. John Finney.

8. Controller's 4th Quarter Financial Review

The Commission requested a report on the Training, Education and Information underrun. (Poor)

9. Executive Session

a. Gnome Shot

You said you would check on the White House release on Gnome pictures.

b. Fermi Award

c. Letter to Mr. Bundy re Livermore Proposals

Item of Information

SNAP, ROVER, and PLUTO Hearings - September 5, 6, and 7

UNCL. BY DOE
NOV 86

EXECUTIVE OFFICE OF THE PRESIDENT

BUREAU OF THE BUDGET

WASHINGTON 25, D.C.

AUG 6 1962

SSS 8/8/62

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

Dear Mr. Chairman:

This is in reply to your letter of July 17, 1962, in which you request the Bureau to initiate a study on the question of compensation of universities over and above direct and indirect costs associated with Government contracts.

Bureau staff have had a preliminary meeting on this subject with staff of Atomic Energy Commission, National Aeronautics and Space Administration, and Department of Defense. The background of the fee which NASA pays on its Jet Propulsion Laboratory contract was discussed. The Defense representative was not familiar with the circumstances surrounding the fee paid to the Johns Hopkins University in connection with the Applied Physics Laboratory contract but will supply us with the information. Outside of these two contracts, the NASA and Defense representatives were not aware of any other cases where universities had requested compensation over and above direct and indirect costs. However, they will check further in their respective agencies on this point.

I assume that you believe a change should be made in Bureau of the Budget Circular No. A-21 which deals with cost principles for university research. That Circular states, in part, that "The objective of this Circular and its attachments is to provide to educational institutions recognition of their full allocated costs of research under generally accepted cost accounting principles. Alternative methods are specified permissible in unusual circumstances or to prevent inequities. No provision for profit or other increment above cost is intended."

The President of the American Council on Education on September 29, 1960, transmitted to the Bureau of the Budget suggested changes in cost principles contained in Bureau Circular No. A-21. The proposed changes were developed by a Special Committee of the Council on Sponsored Research. With regard to fee or profit, the communication from the Council stated:

> "In approaching its task, the Special Committee on Sponsored Research has accepted without reservation the general objective stated in Circular A-21: 'To provide to educational institutions recognition of their full allocated costs of research under generally accepted cost accounting principles.' The Committee agrees that Federal grants and contracts in

support of research at colleges and universities should contain no provision for profit or other increment above cost. On the other hand, the Committee firmly believes that participation in such research programs should not constitute a drain on the institutions' own resources which would otherwise be used to increase faculty salaries, replace obsolete equipment, and take other steps necessary to improve the quality of education and to meet the needs of an expanding enrollment."

Although the author is not given, I observe from a letter inserted in the Congressional Record from Princeton University to Congressman Meader the following statement, "I know of no institution which wishes or expects to make a 'profit' from Government-sponsored research." The letter appears on pages 14002-3 of the July 30, 1962, Record.

In view of the above, I think it would be helpful, in order for us to determine more clearly the type of action we should take on your request, if you could supply us with additional information on individual cases where universities have requested compensation over and above direct and indirect costs in connection with on-campus and off-campus work, including as specifically as possible the reasons for each such request.

I wonder if you would clarify also whether it is your personal view that compensation over and above direct and indirect costs should be provided only for large off-campus research projects or whether it would apply to all research and development contracts with universities.

Sincerely yours,

Deputy Director

that I don't see any reason why they don't have as much right to a fee as Union Carbide for running the Oak Ridge National Laboratory. They seemed to agree that this could be very reasonable and encouraged me to go further into it and check it out with them. I mentioned the University of Chicago case where we cut them down from $1.6 to $1.2 million and said that in a case like that I don't have a profit in mind, but I think that we should perhaps pay more attention to the cost claims of universities.

I had lunch with Jim Ramey at the University Club. We discussed his appointment as a Commissioner, the confirmation hearing and swearing-in ceremony. The confirmation hearing for Ramey and Palfrey is set for next Tuesday (August 14th) at 10 a.m. Commissioners Wilson, Haworth and I will not be able to attend since I will be starting on a vacation-business trip tomorrow. Haworth will be in Vienna to discuss seismic detection matters with the British and neutrals, and Wilson will be in New York.

I received from Pitzer (Acting Chairman, GAC) a copy of the Sherwood Subcommittee report (copy of enclosing letter attached).

I conferred with Alvin Weinberg. He and his family are spending six to eight weeks in Washington this summer while Weinberg works on science information problems for Wiesner.

At 4:15 p.m. I presided over Information Meeting 185 (notes attached).

I sent a letter to the President summarizing the results to date in the DOMINIC series.

Bradbury sent a wire indicating that LASL does not favor having more air tests (as air drops) in the Johnston Island area next month. LRL favors these tests.

Friday, August 10, 1962 - Washington - Lake Michigamme, Mich.

Our entire family flew from Baltimore to Chicago on United Airlines flight no 759, leaving at 8:30 a.m. and arriving at 9:15 a.m. We were met by Joe and Sonia Katz who took us through the Loop area to the Field Museum of Natural History where we toured for about one and one-half hours.

We flew to Green Bay on North Central Airlines flight no. 457 (1:15 to 2:40 p.m.) and on to Marquette on North Central flight no. 345 (3:05 to 4:10 p.m.). We were met by Henry and Minnie Seaborg, Viola de Gabriele, Lalla and Ed Cuyler and their grandson Eddy, Elsie and George Sundlie, Helen Swanson and Sam Cohodas. Sam drove us in his and our rented car to his lodge on Lake Michigamme at Champion. We all had dinner at Salvador's at Three Lakes with Sam and Mrs. Cohodas. We spent the night with our hosts at their lodge.

Saturday, August 11, 1962 - Ishpeming, Michigan

The family, except Helen, visited my old home at 802 Wabash Street (at 7th Street) in Ishpeming, my Mud Lake swimming area and the golf course. We drove past the house where I was born (231 New York Street) in the Old Location, the house my father was born and lived in on Division Street at the Cleveland Location, my schools (High Street and grammar) and the graveyard where my grandparents, Aunt Sophie, and others are buried. We also drove around downtown Ishpeming.

GENERAL ADVISORY COMMITTEE
TO THE
U.S. ATOMIC ENERGY COMMISSION
P.O. BOX 3528
WASHINGTON 7, D.C.

UNCL. BY DOE
NOV 86

August 7, 1962

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

Dear Glenn:

I am forwarding herewith the Report of the Sherwood Subcommittee of the General Advisory Committee, which was considered and adopted by the GAC at its 80th meeting, on July 11, 1962. The principal conclusions and recommendations of this Report were discussed with Commissioner Haworth on July 11, and were summarized in Dr. Benedict's letter to you dated July 27.

We wish to acknowledge and express appreciation for the material assistance given the Subcommittee by the staffs of the Research Division and of the four AEC Laboratories engaged in Sherwood research, and by Dr. Marshall N. Rosenbluth who acted as expert consultant to the Subcommittee.

This review of the AEC's Sherwood program was one of the most intensive and interesting assignments undertaken by the GAC. We stand ready to give further consideration to the Sherwood program at any time that the Commission believes that this would be helpful.

Sincerely yours,

/s/ Ken

K. S. Pitzer
Acting Chairman

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

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NOV 86

COPY NO. 43

August 9, 1962

INFORMATION MEETING 185

4:15 p.m., Thursday, August 9, 1962 - Chairman's Office, D. C.

1. Plutonium Buy-Back

The Chairman reported the Commissioners had approved a letter to Chairman Holifield.

2. Testing Program

The Commissioners discussed briefly the telegram from Dr. Bradbury relative to future testing. Dr. Haworth said he would discuss the matter with Mr. Bundy on Friday.

3. SNAP-50 Program

There will be a seminar on August 20-21, and the Commissioners will meet with Mr. Webb and Mr. Zuckert on September 10.

4. Reports on Test Program

The Chairman said he would sign the letter to the President reporting on Operation DOMINIC, but requested review by Dr. Haworth and Dr. Wilson prior to dispatch. (Henderson)

The Chairman requested that Dr. Wilson sign the letter reporting on NOUGAT.

5. Test Program Briefing

The Chairman requested the General Manager to check rescheduling the briefing sometime after September 1. (Betts)

6. Announcement of Soviet Tests

The Chairman noted receipt of a memorandum from Dr. Scoville.

7. Tests at NTS

The Chairman reported on Senator Cannon's reaction to his letter of August 1, regarding opening the Nevada test Site to the press. The Chairman requested the General Manager to check with Mr. Bundy concerning public release of the SEDAN movie. (GM)

8. New GAC Members

9. Contract Negotiations with AUI

Negotiations have been held up due to the illness of Dr. Tape.

10. Fees for Universities

The Chairman reported his conversation with Messrs. Bell and Staats regarding the Chairman's letter of July 17 and Mr. Staat's reply of August 6.

11. Declassification of Yields of Detonations at NTS

The Commission approved the declassification of the yields of the six detonations listed in the Director of Classification's memorandum to the Commissioners dated August 9. (Marshall)

12. Strike at Nevada Test Site

The Commissioners discussed Senator Bible's inquiry.

PRESENT		DISTRIBUTION
Dr. Seaborg	Gen. Luedecke	Commissioners
Dr. Wilson	Mr. Hennessey	General Manager
Dr. Haworth	Mr. Brown	General Counsel
	Mr. Henderson	Secretary
	Mr. Anamosa	

Harold D. Anamosa
Acting Secretary

Seaborgs with relatives at camps on Little Dead River, August 11, 1962

We spent the afternoon and evening at camps on Little Dead River with George and Elsie Sundlie, Gordon and Helen Swanberg and children (John, William and Scott), Hulda Swanberg, Bill and Thelma Swanberg, Harry and Lila Green, George and Aura Green, Jerry and Viola de Gabriele and children (Gregory, Peter, Carolyn and Chris), Helen Hedstrom, Percy and Verna Chinn and son Gordon, Helen Marie Swanson and August and Martha Olson.

Sunday, August 12, 1962 - Ishpeming

Our family went for a motor boat ride on Lake Michigamme with Gordon ELson. We then went to the Winter Sports Lodge in Ishpeming where we had a picnic with Uncle Henry and Aunt Minnie Seaborg, Ed and Lalla Cuyler, Bill and Rosemarie Cuyler and sons Eddy and David, Bill Larson, Sr., Esther Dahl, Mrs. Carl Dahl, her daughter and boyfriend, Edna Dahl Reppala and son Steve. We then went to Mather Inn and visited Edith Ericson in her room where Reverend Marcus and Naomi Johnson and their son were visiting Edith. After dinner in the dining room of the inn, we all visited Edith again

We visited the National Ski Hall of Fame and the museum and then went back to the Cohodas Lodge in Champion where we again spent the night.

Monday, August 13, 1962 - Ishpeming

Under the guidance of Uncle Henry Seaborg we visited the site of Daddy Olcott's fall in the creek, the site of Farfar's escapade in Incline Mine, the flooding of Cleveland Location, Farfar's family home and birthplace, the "Old Ish" statue, etc.

We had lunch with Henry and Minnie at their home.

The family then visited my birthplace at 231 New York Street (a house next to a huge rock) and other places in the Old Location.

Helen, Pete, Lynne and I had dinner at the home of John and Grace Voelker, their daughter Grace and her friend Ann Holingren. Bill and Rosemarie Cuyler and sons Eddie and David stayed at the Cohodas lodge with the other children.

Seaborg with relatives at Winter Sports Lodge, August 12, 1962

Dianne, Dave, Eric, Glenn, Stephen and Peter Seaborg by
Lake Michigamme, Michigan, August 12, 1962

Meeting of the "eleven" cousins at Ishpeming Mather Inn, August 12, 1962
Front: L to R: Pete, Steve, Eric, Dave and Lynne Seaborg
Back: L to R: Helen holding Dianne Seaborg, Marcus and Naomi Johnson
with Johnson's dog, Edith Ericson and Glenn

Sundlies' house on Bank Street, Ishpeming, Michigan, August 14, 1962

Front: George and Elsie Sundlie, Helen Seaborg, Seaborg (holding Dianne and Dave Seaborg)
Back: Steve, Eric and Lynne Seaborg

Seaborg and Clarence Larson families, August 14, 1962

Seaborg at 231 York Street,
Ishpeming, August 13, 1962

Statue of "Old Ish" in background
Eric, Dave, Glenn, August 13, 1962

Tuesday, August 14, 1962 - Ishpeming - Palmer

We visited my childhood friend, Clarence Larson, his wife Janet and their children, in the nearby town of Palmer.

We had lunch (which was a birthday party for Steve who is 11 years old today) with Elsie and George Sundlie.

In the afternoon we visited Suicide Hill, Jackson Mine (where iron ore was first discovered in 1845), the inside of my father's home at 639 E. Division Street (Cleveland Location). Mr. Kurin, a member of a family who has occupied the house ever since the Seaborgs moved out, still lives there.

Pete and I went to a dinner meeting of the Ishpeming Rotary Club as the guests of Sam Cohodas. It was held at the Ishpeming National Ski Hall of Fame and Museum. The rest of our family had trout for dinner given us by John Voelker.

After dinner Bill and Helen Peterson came over to the Cohodas Lodge to visit with us.

Wednesday, August 15, 1962 - Michigan - Seattle, Washington

The family flew from Marquette to Green Bay on North Central flight no. 340 (7:32 to 8:35 a.m.) and on to Chicago on North Central flight no. 450 (9:05 to 10:45 a.m.). Henry and Minnie helped drive us from the Cohodas Lodge to the airport, where Ed and Lalla Cuyler, Elsie and George Sundlie and Helen Marie Swanson saw us off.

We had lunch at the O'Hare Inn in Chicago with Jay and Betty Rigby (she is Uncle Henry Seaborg's daughter) and their children Barbara, Karen, Gwen and James.

We then flew to Seattle on United flight no. 837 (1:30 to 3:45 p.m.). We checked into the Queensborough Apartments (101 West Olympic) and then went to the World's Fair. We saw part of the U.S. Science Pavilion, and the Space Show (i.e. the journey into space to the furthest galaxy and back).

We had a hamburger sandwich dinner and wandered through the Gayway and other areas.

Seaborg and Rigby families near airport, Chicago, Illinois, August 15, 1962
Front: Karen and Gwen Rigby; Middle: Steve Seaborg, Barbara Rigby, Eric and Dave Seaborg, Betty Rigby; Rear: Lynne, Peter, Helen (holding Dianne) Seaborg, and Jason Rigby (holding James)

Thursday, August 16, 1962 - Seattle

We met with Joseph Gandy (President of the Seattle World's Fair) in the Fair headquarters to discuss plans and logistics for our visit. We saw the U.S. Science Pavilion and other exhibits with Hans Pelusa, a Fair guide, furnished by Mr. Gandy.

While the rest of the family visited the Fair, I attended a dinner in connection with the International Seminar for Science Writers which has been held in Seattle for the last four days under the auspices of the American Institute of Physics, the American Chemical Society, the U.S. Science Exhibit, the University of Washington and the National Science Foundation. Despite my suffering from a rather severe migraine headache, I gave a two-minute talk on the importance of scientific literacy and the contribution of science writers.

Friday, August 17, 1962 - Seattle

From 11 a.m. to 11:30 a.m. I held a press conference at the Press headquarters of the Fair. The questions asked concerned science exhibits at the Fair, civilian nuclear power, the SNAP program, prospects for a test ban, a future permanent science exhibit in Seattle, scientific literacy, etc.

I had lunch at the Tennis Club with Dean Joseph McCarthy of the University of Washington. We discussed the future of the AEC biological program at the University, a possible tie-in with the Hanford research program and my possible membership on the Board of Trustees of the Pacific Science Center Foundation (which aims to perpetuate the Fair's Science Pavilion).

I visited the Science Pavilion, the NASA exhibit, the Century 21 Theme exhibit and others. The rest of the family visited a number of other areas, separately and in

groups, aided by Hans Pelusa. The entire family visited the observation tower of the Space Needle.

Pete, Lynne, Dave and I had dinner in the revolving dining room of the Space Needle.

Saturday, August 18, 1962 - Seattle

We spent the day at the Fair.

All of us were the guests of Ewen Dingwall at a luncheon hosted by Ed Stimson at a harbor restaurant.

I visited the Theme Center in the Coliseum, all the foreign exhibits (Great Britain is especially good), the industrial exhibit and many others.

In general, the family separated into groups to visit the various exhibits.

Sunday, August 19, 1962 - Seattle - Lafayette

We flew on United flight no. 895 to San Francisco (8:30 to 10:15 a.m.). After arriving in Lafayette we stayed at the Perlmans who live next door to our house. We visited the McPeaks who are leasing our house.

I worked on the high school book, The Man Made Transuranium Elements, and on the civilian nuclear power report to the President.

Pete stayed overnight with the Peerys and Lynne at Karen Wagner's home. The rest of us stayed at the Perlmans.

Monday, August 20, 1962 - Lafayette - Berkeley

I spent most of the day at the Chemistry Building of the Lawrence Radiation Laboratory. I participated in an 18-minute film on Transuranium Elements in connection with the CHEMStudy high school course.

I had lunch at the Faculty Club with Harvey White, Lee McLean, Don McLaughlin, Harry Wellman, Iz Perlman, Tom Cunningham, Earl Bolton, Bill Fretter and Ed McMillan to discuss progress, especially fundraising for the Lawrence Hall of Science.

Pete stayed overnight with the Peerys, Lynne with the Wagners and Dave at the home of Mark Alexander. The rest of us were guests of the Perlmans.

Tuesday, August 21, 1962 - Lafayette - Berkeley

I again spent a good part of the day being filmed for the CHEMStudy high school course. Stan Thompson and Burris Cunningham also participated.

I had lunch at the Faculty Club where I met many friends.

The Seaborg family, the Perlmans, Peerys and Wagners had dinner with the Albert Alexander family.

Our overnight accommodations were the same as Monday night except that Eric stayed with his friend Mike Cummock (son of Dick and Joyce Cummock).

Wednesday, August 22, 1962 - Lafayette - Berkeley

I met with the associate directors of the Lawrence Radiation Laboratory at their regular weekly meeting.

I had lunch with Ed McMillan, John Foster, Wally Reynolds and Harold Fidler.

I spent most of the day at the Radiation Laboratory working on various AEC matters and on the high school book, The Man Made Transuranium Elements. I checked with John Foster my description (as it occurs in the book) of how nuclear weapons work.

Thursday, August 23, 1962 - Lafayette - Berkeley

I visited the Chancellor's office and saw Kitty Malloy, Akiko Owen, Errol Mauchlan, Bill Fretter, A. Miller, Margaret McConnell and others.

I visited Ellison Shute at the AEC San Francisco Area Office on Bancroft Street.

I had lunch at the Faculty Club where I met many old friends.

I spent the afternoon at the Radiation Laboratory and talked to Emilio Segrè, Luis Alvarez and members of the Chemistry Group.

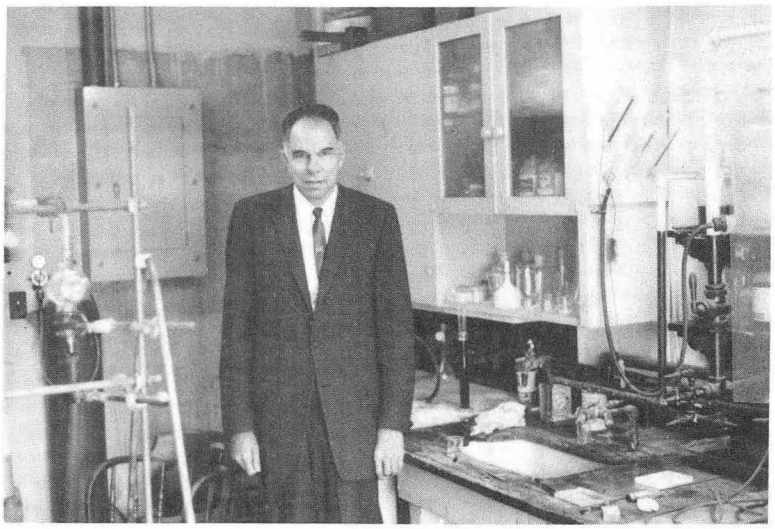
Friday, August 24, 1962 - Lafayette - Berkeley

Pictures were taken on the University of California campus of me in Room 307 Gilman Hall, where plutonium was discovered on February 24, 1962. This room will be changed soon to make way for chemical engineers.

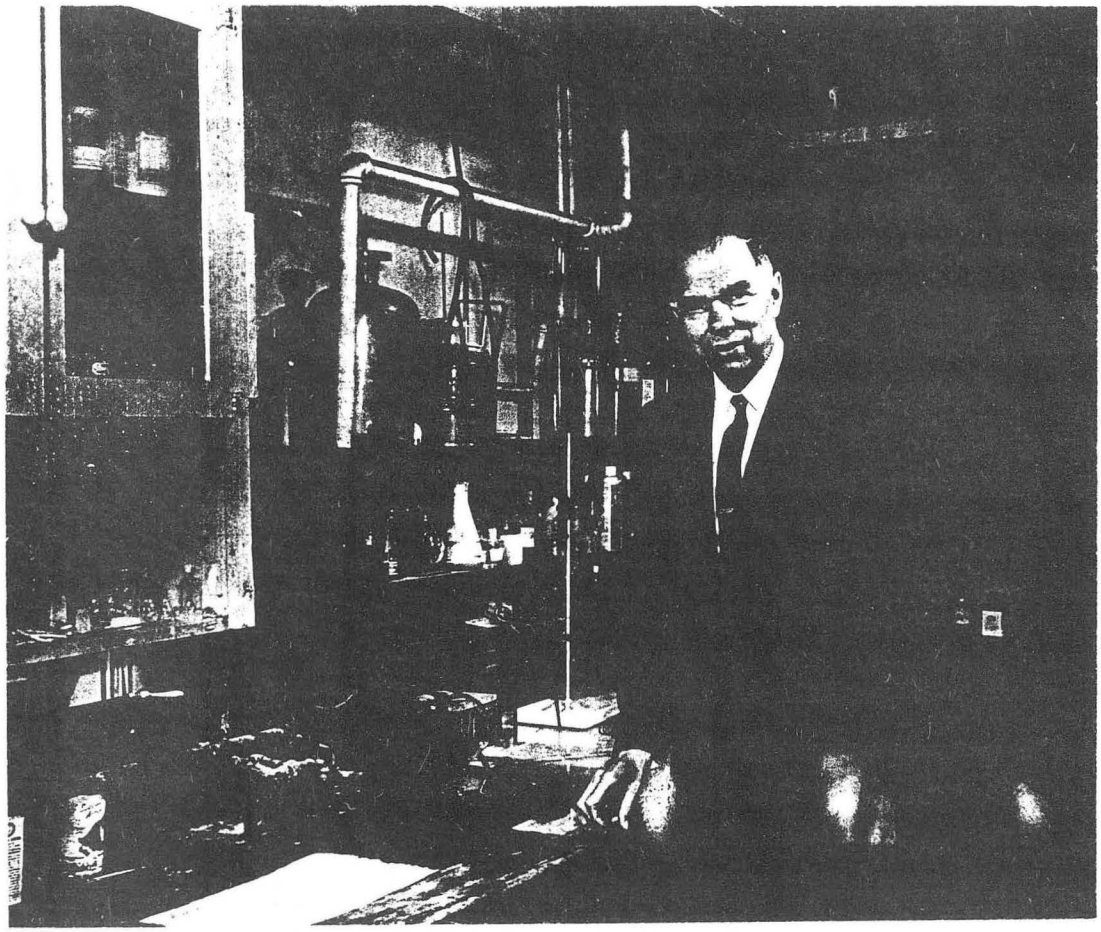
I had lunch at the Pacific Union Club in San Francisco with Scott Newhall of the San Francisco Chronicle. We discussed Dick Reston's article about me, the concept of a single administrator, etc.

I conferred with Gary Higgins, Stan Thompson, Sherman Fried and Iz Perlman on impending underground nuclear explosions to possibly make transactinide elements. Berkeley and Livermore Radiation Laboratories and Argonne Chemistry groups will participate. We discussed a plan to put out the next edition of the Table of Isotopes. We also discussed final plans for the Hyde-Perlman-Seaborg book on the Nuclear Properties of Heavy Elements which will come out in three volumes. I also visited various chemistry group members.

We had dinner at the home of Emilio Segrè.



Seaborg in Room 307, Gilman Hall, Berkeley campus, August 24, 1962



Visit by Seaborg to room 307, Gilman Hall, on the Berkeley Campus, where plutonium was discovered in February 1941

August 24, 1962

Saturday, August 25, 1962 - Lafayette

Jack and Margie Hollander and their children, Jeff and Judy, visited us. Fred and Edrey Albaugh and their children, Jeff, Jimmy and Jean (visiting from Richland, Washington), and Len and Dagmar Dreher and their son, Jerry, and Dan Wilkes and their daughter, Shelley, also visited us. Everyone came to the home of the Perlmans where we are staying.

Sunday, August 26, 1962 - Lafayette

We spent the day at the Perlmans' home.

I worked on The Man Made Transuranium Elements book, the power report to the President and various other AEC papers.

Monday, August 27, 1962 - Lafayette - Washington

We flew from San Francisco to Baltimore on United flight no. 808 (8:30 a.m. to 4:20 p.m.). We were met by Jim Haddow and Chris Henderson who had our station wagon and a government car.

I worked on AEC papers and prepared for my testimony tomorrow on contracting for R&D.

Tuesday, August 28, 1962 - D.C.

At 10 a.m. I testified before the Subcommittee on Military Operations of the House Committee on Government Operations on contracting for research and development. Present were Chet Holifield (Chairman), Congressmen Bradford Morse (R-MA), and R. Walter Riehlman (R-N.Y.), as well as committee staff members. Hollingsworth, Vinciguerra, Pittman, English and Hennessey of the AEC staff were present. It went well. I made a plea for higher salaries for government employees.

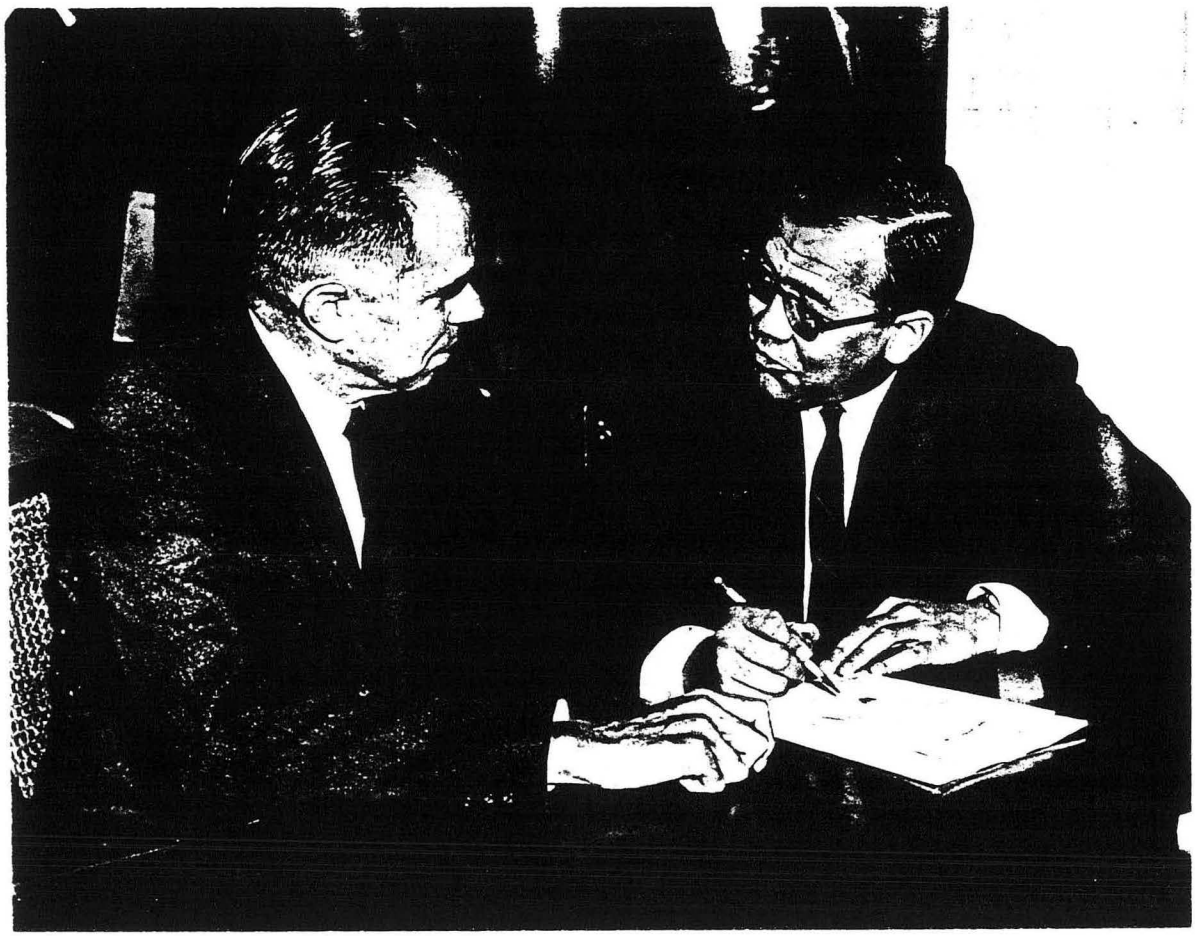
I met with Jim Ramey and John Palfrey, who will be attending their first Commission meeting as observers. There is still confusion as to the process for swearing them in. Dungan is determining whether there should be White House involvement.

At 2:40 p.m. I presided over Commission Meeting 1865. The Commission approved a uranium ore stretch-out from December 21, 1966, through December 31, 1970, with an incentive to buy a matching amount in 1969 and 1970. This will go to the Bureau of the Budget, the Joint Committee and the House Appropriations Committee for comment before the next step. The Commission approved the following: 1. the sale of components and materials to the United Kingdom, 2. chemical processing of fuels of U.S. origin in the U.K., and 3. the labor situation I had proposed for Rocky Flats. Haworth and I discussed the civilian power report and he is working on a final draft.

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

I wrote a letter to Professor Dr. K. Mathes and thanked him and his colleagues for my election to the Deutsche Akademie der Naturforscher Leopoldina but declined the honor. I cannot accept in my present position.

Also, I wrote to Pete Newell in response to his letter. I said I was sorry I could not attend the football game between Berkeley and Duke in Durham. However, I said that Helen and I and our four older children will look forward to the University of California reception and luncheon at the Statler on October 14th.



Government Hearings on Government contracting for research and development before House Committee on Government Operations, August 28, 1962

Seaborg and Representative Morse of Massachusetts in conversation before Hearings

326 US ATOMIC ENERGY COMMISSION
Seaborg (326746)
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(4) Report to White House

DC FILE

AUG 28 1962

Dear Mr. President:

I am pleased to submit to you my bi-weekly report on significant developments in the atomic energy program. Inasmuch as I have been on a combined business trip and vacation the past two weeks, this is my first report since the end of July. I have not included in this report those items which have already come to your attention in the interim because of their importance or urgency.

1. Confirmation of James T. Ramey and John G. Palfrey as AEC Commissioners (Unclassified)

The Senate side of the Joint Congressional Committee on Atomic Energy (JCAE) reported out to the Senate with no objections the nominations of Messrs. Ramey and Palfrey. The Senate, by unanimous consent, approved these nominations on August 24th. It is planned to hold swearing-in ceremonies in the next several days.

2. Congressional Hearings (Unclassified)

The Commission will have a full congressional calendar for the next several weeks:

a. August 28 - House Military Operations Subcommittee. I testified today, together with the AEC staff, on Government Contracting for Research and Development.

b. August 30 - JCAE. Weapons personnel from AEC, DoD, and laboratories, will brief the JCAE on the Dominic test series.

c. August 30 - Senate Finance Committee. The Commission and staff will testify regarding the AEC appropriations for FY 1963.

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BY AUTHORITY OF
BY memo A A Simonelli, OC/D 1/24/68

d. September 5, 6, and 7 - JCAE. The Commission and staff will testify on the Rover, SNAP, and Pluto programs.

3. Project Chariot

The Commission recently reviewed the plans for Project Chariot, the nuclear excavation experiment proposed to be conducted on the Alaskan Coast near Cape Thompson, and decided to defer any specific decisions on the future conduct of this experiment. Originally, Project Chariot was a major segment of the Plowshare Program on the peaceful uses of nuclear explosives. However, the approval of the Panama Canal Program has altered its programmatic status. Much of the data that might have been obtained from Project Chariot are now planned to be obtained through the other experiments associated with the Panama Canal Program, in accordance with the directive contained in NSAM 152 of April 30, 1962.

DOE ARCHIVES

The field stations for Project Chariot are being placed on a caretaker status. The bio-environmental studies conducted at the site are to end this September. These studies have not revealed any way in which Chariot would endanger the local inhabitants or their livelihood, and therefore such considerations were not the basis for the Commission decision to hold Project Chariot in abeyance.

4. Buy-Back of Plutonium (Unclassified)

In answer to inquiries from the nuclear power industry and industry journals, the Commission issued a press release on August 21st stating that the AEC position on plutonium purchases after June 30, 1963, remains essentially that set forth in Commission testimony before the JCAE last March, providing a minimum price of at least $8/gram for plutonium as the nitrate.

This is a part of the general considerations of amending the Atomic Energy Act to permit private ownership of special nuclear material, which the JCAE has said it will take up early in the next session of Congress. Draft legislation on this subject was sent to the Budget Bureau last spring and is being revised for transmission to the Budget Bureau again this fall.

5. Nevada Test Site Construction Labor Board (Unclassified)

This Board was established jointly on August 20th by Secretary Goldberg and the Acting Chairman of the Atomic Energy Commission to cope with a labor situation at the Nevada Test Site near Las Vegas, Nevada, which I reported to you on July 10th and 24th. A number of labor agreements negotiated by labor with contractor associations contain provisions which, with respect to travel time, hazard pay, and fringe benefits, appear to be excessive and to favor private contractors in the area over the Government. This Board's primary function will be to recommend procedures to be followed in correcting this situation, and it will begin hearings at Las Vegas, Nevada, on September 6th. There have been no serious work stoppages, and the AEC is attempting to assure continuity of operations and still strive for economical practices at the Test Site.

DOE ARCHIVES

6. Dow Chemical Company, Rocky Flats Plant [redacted]

The strike by the Denver Metal Trades Council against Dow Chemical Company, Rocky Flats Plant, near Boulder, Colorado, which fabricates plutonium and uranium for nuclear weapons, is entering its third week. As I reported last, on July 24th, the situation appeared to be settled as a result of Secretary Goldberg's personal intervention; however, the proposed settlement was not accepted by the membership of the local union.

The first meetings since the beginning of the strike, between the Metal Trades Council and the Dow Chemical Company, commenced yesterday, August 27th. These

meetings may be a first step towards settlement of the dispute without a Taft-Hartley injunction. We are continuing observance of developments and reviewing the criticality of our weapons production at this plant very carefully. Taft-Hartley action will probably be necessary if the Denver Metal Trades Council is unable to resolve the strike shortly.

7. International Atomic Energy Agency (IAEA) General Conference (Official Use Only)

I am presently planning to leave for Europe on September 11th to participate in the Sixth General Conference of the IAEA, returning to Washington on September 26th. I also plan during the trip to take the opportunity to visit a number of nuclear installations in Sweden, Belgium, France, England, and possibly Spain, and to discuss our programs of cooperation with these countries as well as with EURATOM.

DOE ARCHIVES

It may be of interest to you that I have accepted an invitation to deliver a speech in Stockholm, Sweden, on September 16, 1962, on the occasion of the Swedish American Day at which I will be honored as the Swedish-American of the Year - an honor awarded to an American of Swedish descent. (A copy of the proposed speech was forwarded to Mr. Reardon on August 14th.) While in Sweden, I will also deliver a lecture to Swedish engineers and scientists on the subject of "Science and Technology in the U.S. Atomic Energy Program," the text of which is to be based on other talks which I have given in the U.S. over the past year. I have also been informed that arrangements are being made for me to meet the Prime Minister of Sweden, Mr. Tage Erlander, at a luncheon which is being planned for that purpose.

Respectfully yours,

(Signed) Glenn T. Seaborg

Glenn T. Seaborg

The President
The White House

Wednesday, August 29, 1962 - D.C.

I met with George E. White and William G. Lalor of the General Electric Company. They briefly described to me the status of their reactor projects proposed, or under way, in Japan, Holland, India, Germany and the Senn project. They would like to begin to use plutonium in the Vallecitos reactor and are beginning to talk to utilities about a cooperative program here. They would want to have AEC support for this and not get into another money losing affair like they had with the superheat project. We also discussed the fast reactor and the possible cooperative program with the Southwest group.

I had lunch today with Lee Haworth, Norris Bradbury and John Foster.

General Betts, Bradbury, Foster, Mark Schwartz and Shelton briefed the Commission, Alexis Johnson, Walt Rostow, William Foster, Frank Long, Carl Kaysen and others on the DOMINIC results.

Russia today offered a test ban as of January 1, 1963. The President responded in a press conference saying we would agree if controls are included.

Helen and I attended a buffet supper at the home of General and Mrs. Betts in honor of John Foster, Norris Bradbury and Mark Schwartz.

Thursday August 30, 1962 - D.C.

I called Holifield and said that since Haworth and I have heard the briefing on the DOMINIC results yesterday, I don't think we should come to the hearing this morning unless he particularly thinks we should. He said he doesn't think it is necessary. I told him I wanted to talk with him before the ROVER and SNAP hearings to tell him where SNAP-50 stands. I said I think we are making progress but I will know better by that time. He asked where we stand on the swearing-in of Ramey and Palfrey, and I told him Ralph Dungan is trying to see the President and I am waiting to hear from him.

At 11 a.m. I presided over Information Meeting 190 (notes attached). I sent a letter to Bundy re cooperation with France, Italy, and the Netherlands (copy attached).

Southern California Edison may have found a new site for their reactor on the northern edge of Camp Pendleton, which may be more acceptable to the Navy and possibly acceptable to the ACRS. Some members of the ACRS (Henry Newson and Theos Thompson) are still unhappy about conditions which AEC approved for the SAVANNAH port entry. Also, the Maritime Administration is requesting an additional port (Norfolk inside channel) which the AEC will approve only if it enters under auxiliary power.

Prince Juan Carlos and Princess Sofia (of Spain) paid me a short visit today. They are on their way back to Spain after taking a honeymoon around the world lasting several months. Commissioner Wilson, General Luedecke, Howard Brown, Pete, Lynne and Dave came in to meet them. Ambassador Antonio Garrigues and Professor Calvo (Secretary to the Prince) were also present. Photographs were taken.

At 2:30 p.m. I testified before the Senate Appropriations Committee, AEC-TVA Subcommittee of the Public Works Subcommittee, on our FY 1963 budget. We pleaded for restoration of the $10 million House cut on physical research and other items. It seemed to go well. Others participating were Commissioner Wilson, General Luedecke, Frank Pittman, Spof English and Frank McCarthy.

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

OFFICE DIARY
GLENN T. SEABORG
Chr USAEC, 1961-72
FOLDER-PAGE 20115

901287 COPY NO. 11

August 30, 1962

INFORMATION MEETING 190

11:00 a.m., Thursday, August 30, 1962 - Chairman's Office, D.C.

1. Visit of Prince Juan Carlos and Princess Sophia -

2. Cooperation with the French -

3. Appointment of Representative to Subcabinet Group on Civil Rights -

The Chairman requested preparation of a letter appointing Mr. Ferguson. (GC)

4. Cooperation re S5W Core -

A letter will be sent to Sir Roger Makins advising that the period September 12 - 22 is acceptable for discussions. (GM)

5. DELETED

6. SNAP-50 - DELETED

The General Manager said he had a conference with Mr. Seamans of NASA scheduled for 11:00 a.m. today to discuss the Air Force position on SNAP-50 responsibility.

7. Draft Letter to Mr. Bundy re Cooperation with France, Italy and the Netherlands -

The draft letter was approved as revised. (Betts)

8. Duration of Duty on Nuclear Powered Ships -

It was agreed AEC should take no steps at this time.

9. AEC-DOD Agreement for Nuclear Weapons Research -

The status of AEC review will be checked. (Henderson)

10. Proposed Announcement of Restricted Area -

The letter to Mr. Bundy should be revised. (Jacques)

11. House Action on NPR Reactor -

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REVIEWED BY J. Stang DATE 11/17/87
Concurrence 11/17/87

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12. Secretarial Assistance for New Commissioners -

13. Message from Ambassador Dean re Test Ban Negotiations -

14. PLOWSHARE Cooperation with Australia -

If there are no legal obstacles, Sir Howard Peele should be advised of AEC interest. (GM)

15. Test Cooperation with the U.K. -

The letters were approved subject to correction.

16. KIWI-B1B -

A full power run is scheduled for August 31. A press release will be issued at Nevada.

17. Action on GAC Recommendations of August 7 -

Mr. Hollingsworth said he would check on the status. (Hollingsworth)

18. Agenda for the Week of September 3 -

Approved as revised.

19. Claim due to Milk Contamination -

Mr. Hennessey said he proposed to respond factually to the letter of inquiry and would refer the writer to Public Health Service for certain additional information.

Present		Distribution
Dr. Seaborg	Gen. Luedecke	Commissioners
Dr. Wilson	Mr. Hollingsworth	General Manager
	Mr. Henderson	General Counsel
	Mr. Hennessey	Secretary
	Mr. Anamosa	

Harold D. Anamosa
Acting Secretary

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NOV 86

OFFICE DIARY
GLENN T. SEABORG
Chr USAEC, 1961-72
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Dear Mac:

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The attached statutory determinations pertaining to the proposed cooperation programs with France, Italy and the Netherlands are forwarded pursuant to Executive Order 10956.

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The Department of Defense feels that a definite commitment to provide a specific weapon to a specific country should not be a prerequisite to initiating a personnel training and compatible delivery system development program with these respective countries. The decision to initiate a cooperation program or to disperse a specific weapon are of sufficient magnitude to be considered separately and each on its own merit. Furthermore, there are definite advantages to developing an atomic delivery capability in advance of a decision on dispersal, where potentially compatible delivery systems are available which have been committed or earmarked as NATO forces. Among these are:

a. Adequate lead time for developing compatibility with committed aircraft, and training of personnel as soon as available.

b. Flexibility in dispersal of weapons to meet changing requirements.

c. Development of a more varied atomic delivery capability for use in the event of an emergency.

d. Achievement of "built in" compatibility for weapon systems which NATO members may design and manufacture.

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The differences in views have been discussed between the Atomic Energy Commission and the Military Liaison Committee and, it is understood, the Atomic Energy Commission will provide recommendations regarding action on these determinations, separately.

The Commission understanding that it will be afforded an opportunity to participate in a security survey to insure physical protection of the transmitted data in dispersed weapons is adequate, is consistent with present practice and is agreeable to the Department of Defense. The Department of Defense further agrees that it will not be necessary to transmit tactical operating information [redacted] as a safety requirement.

DELETED

With regard to the transmission of information [redacted] to France, this information is required to initiate the atomic training program for the Air brigades equipped with the F-100D aircraft and presently in place in Germany. This training is scheduled to begin 1 October of this year.

DELETED

If you concur in the completion of these determinations as proposed by the Department, [redacted] the Joint Committee on Atomic Energy and the Joint Atomic Information Exchange Group will be concurrently notified.

DELETED

Sincerely,

4 Inclosures:
1. Exchange of Correspondence re France
2. Exchange of Correspondence re Italy
3. Exchange of Correspondence re The Netherlands
4. Summary of Proposed Cooperations

Honorable McGeorge Bundy
Special Assistant to the President
for National Security Affairs
The White House

173 20118

Visit of their Royal Highnesses Prince Juan Carlos and Princess Sofia
to the Chairman's Office, Washington, D.C. August 30, 1962

L to R: Lynne, Prince Juan Carlos, Princess Sofia, Seaborg, David and Peter

L to R: Ambassador of Spain Antonio Garrigues, Prince Juan Carlos, Seaborg,
Princess Sofia, and USAEC Commissioner R. E. Wilson

Helen and I attended a farewell reception by Ambassador and Mrs. Wilhelm Grewe at the Germany Embassy.

Friday, August 31, 1962 - D.C.

From 11 a.m. to 12:30 p.m. Lee Haworth and I met with Bundy, Dick Garwin, Keeny, Scoville, Kaysen, Seamans, Hooper and Charles Johnson in the Situation Room of the White House. The purpose of the meeting was to discuss an unexpectedly large addition to the Van Allen belt (increase by factor 10-100 at a few thousand KM) caused by the STARFISH high altitude test. We decided to issue an AEC-DOD announcement for the press and to warn the USSR through Ambassador Dobrynin so that they might not add to it. There is a great concern over its effect on the space program--astronauts and satellites, some of which have had their solar batteries ruined.

At 12:30 p.m. I attended the swearing-in ceremony of Commissioners John Palfrey and James Ramey at the White House in the presence of President Kennedy, Congressman Holifield and other members of the JCAE, members of the Palfrey and Ramey families, press and TV reporters, etc.

I had lunch at the White House Mess with Palfrey and Haworth.

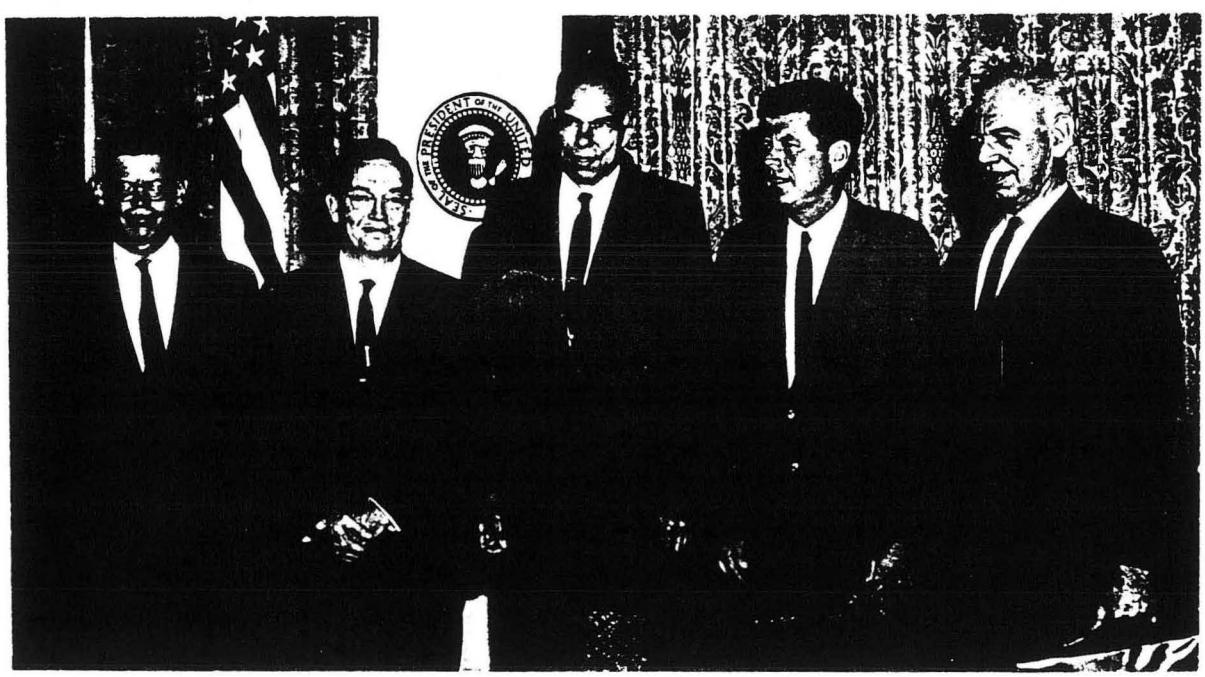
I received word that the NS Savannah nearly collided (within two feet) with a Navy destroyer near Norfolk. The Navy destroyers were in single file in the main channel and, therefore, paralleling the course of the SAVANNAH (on its way into the Norfolk harbor). Suddenly, for no apparent reason, the destroyer third in line cut its speed as it approached the Bay Bridge-Tunnel construction and veered to the right of its channel. As the SAVANNAH passed the back of the destroyer they were about two feet apart. The Maritime people say the Navy has recognized this as a serious thing and said they would appreciate as little publicity as possible until their inquiry is completed.

I met with Dr. Gerald Tape (BNL) who came in to discuss the negotiations for the AUI contract to run Brookhaven. The negotiations with Vinciguerra, et al., have been unsatisfactory because of the restrictive positions on how a management fee might be used; for example, none of it could be used for seed money for new projects, and there could be no reserve at the end of the year that could be retained by AUI. He thinks that they should have a management fee like that of the universities, who can spend it in an unrestricted manner to further research objectives. I told him to carry on the negotiations with Vinciguerra; and, if these are unsatisfactory, to ask to come in and present his case to the Commission.

Helen and I attended a dinner at the home of Belgian Counselor and Mrs. Bassompierre in honor of Dr. J. Spaey (General Secretary, National Commission for the Political Sciences in Belgium) and Mr. Jacques de Fay (assistant to Dr. Spaey).

Swearing-in Ceremony for Commissioners James Ramey and John Palfrey at the White House, August 31, 1962

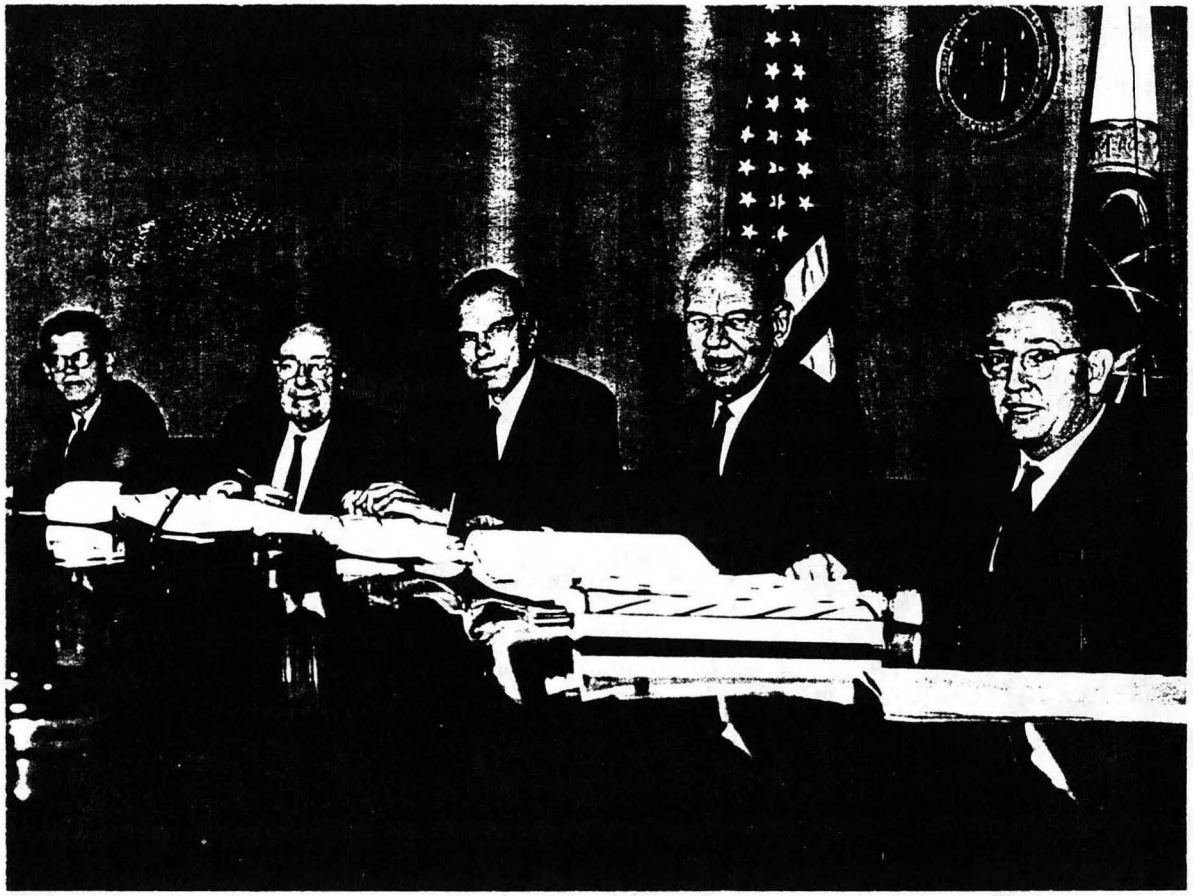
L to R: Miss Ramey, Mrs. Ramey, President Kennedy, Ramey, Palfrey and Mrs. Palfrey



L to R: Palfrey, Ramey, Seaborg, President Kennedy, Haworth

The Commissioners of the U.S. Atomic Energy Commission,

August 31, 1962



L to R: Commissioners Palfrey, Wilson, Chairman Seaborg, Haworth and Ramey

Saturday, September 1, 1962 - D.C.

I worked in the office until 1:30 p.m. answering correspondence and reading AEC papers. Haworth and I discussed a letter to the President that will request add-on tests for the DOMINIC series at Johnston Island and more high altitude tests. This letter will be used as a basis of discussion at the forthcoming National Security Council meeting (September 6th).

I wrote to Edward E. Carlson, President, Pacific Center Science Foundation, to accept election as a member and trustee of that foundation, but suggested they might wish someone with more time available.

I sent a memo to Chris Henderson and Cecil King about the dinner at the Belgian Embassy last night alerting them to the Belgians' interest in my projected trip to Belgium.

I worked at home on my high school book and forthcoming speeches.

Sunday, September 2, 1962

I worked on the AEC special report, "Fundamental Nuclear Energy Research--1962," to be issued in December or January. I also worked on my article, "Careers for Tomorrow," which will be published in Chemical and Engineering News, and the following speeches: IAEA Sixth General Conference speech for September 17th, "Nuclear Science and the Strategies of Peace," to be given at the Los Angeles World Affairs Council on October 9th, "Atomic Power and Space," to be given at Whittier College on October 10th, and "Partnership of Science with the Arts and Humanities," to be given at Rice University on October 11th.

Monday, September 3, 1962 - LABOR DAY

I worked on the Brien McMahon Lecture, "New Perspectives in Atomic Energy," that I will give at the University of Connecticut on October 25th.

In the afternoon the entire family drove to Charlestown, West Virginia, where we saw Charles Washington's house and the courthouse where John Brown was tried. We visited Antietam Battlefield, where we took the complete auto tour.

I worked on a statement regarding the artificial radiation belt, caused by the STARFISH high altitude explosion, for issuance to the scientific community.

Tuesday, September 4, 1962 - Germantown

At 9:20 a.m. I received a call from Jackson Laslett (calling from Wiesner's office), who told me that he, Panofsky, Garwin and several others, will be discussing with Wiesner today the document containing information on the high altitude tests for release to the professionally interested public. I mentioned the letter to the President on which Lee Haworth has been working, which briefly reports to the President the results of the tests which have led us to where we now are and their effects on the future and the future program. Laslett is familiar with the letter but doesn't know whether it will be discussed or not.

Laslett called back a little later to say that the discussions today (at a meeting with the President) will include a review of the need for the whole future effort. He said Wiesner wants to look at the program to see whether there is justification for what is planned. I then talked to Wiesner and we discussed the different shots. I told him the high altitude test we worry is about most is KINGFISH. He said he hates to see us put in any more shots until we have some high altitude instrumentation. I asked him what he feels about the numerous small shots and he said his inclination is to say they are O.K. I suggested he call me if questions arise during the discussions today.

At 10:15 a.m. I called Harold Brown to discuss the proposed letter to the President, a draft of which we are preparing to take to the 4 p.m. meeting this afternoon. I said it is my understanding that this will be the basis for the NSC meeting on Thursday. He asked if our letter is an attempt to cover the whole effort, and I told him I don't think there is anything in it that would bother the DOD.

I asked if he is a little worried about KINGFISH. He said he is worried in a sense because data are sufficiently uncertain; there is going to be a 25% injection and even at a lower altitude the injection would still be the same. It doesn't live very long at a lower altitude. He is pretty well convinced that this is going to produce a big belt and before we actually shoot KINGFISH they will know the number isn't 25% but something different. He thinks they should do the other experiments first and then do KINGFISH. From a military point of view, he thinks it is important that KINGFISH be done at a higher yield.

I called Bob Seamans about the matter of release to the scientific community, particularly COSPAR, of information gained from the high altitude tests. I told him Haworth was called out of town (his mother died in Indiana), and it wasn't too clear to him just what the mechanism would be for the release. Lee has said, as a result of working with Harold Brown, there has been talk of transmitting the information to the National Academy for re-transmittal to COSPAR. Lee also said that someone at NASA has discussed the possibility of transmitting this material through the Space Science Board through which NASA normally releases material to COSPAR. Seamans said he isn't too clear on all the mechanics himself. He thinks the real decision is whether we treat the belt that is already there the way we treat all natural phenomena--we just make measurements and then make the information available in a normal way. He thinks it is terribly important and should involve AEC, DOD and the White House. He feels that we have to be open and allow their people to discuss the kinds of instruments and measurements they use and make or they shouldn't report on it at all.

He feels, if they don't do this, then they should just report generally like AEC and DOD does. I said this release is aimed at the professionally interested people. Seamans said he plans to discuss this with Jack Townsend from Goddard today and will know more about it afterward. He did say he feels they have to absolutely stay away from bomb effects. I pointed out they are intertwined. He said they could just report on what is up there and stay away from how it got there. However, they want to do whatever is best for the country. We will discuss this further at the meeting in Bundy's office this afternoon.

Ramey made his first appearance as a Commissioner at Germantown. He seems to want to make an issue over which office he takes over--a matter of priority or seniority over Palfrey. He wants Graham's office, but I decided that this should go to Haworth.

I had lunch in the cafeteria with Bill Slaton (Director, Division of Plans and Reports), Arnie Fritsch and Vic Schmidt. We discussed Slaton's program.

From 6 p.m to 7 p.m. I attended a meeting in the Situation Room of the White House. Present were: Bundy, Gilpatric, Harold Brown, Wiesner, Garwin, Jerry Johnson, Charles Johnson, Seamans, Scoville, Keeny, Panofsky, Hooper, Jack Townsend (NASA), Luedecke and Betts. The purpose of the meeting was to discuss the nuclear test schedule. We discussed a program of five developmental tests and one high altitude test (AEC) and five DOD high altitude tests. The KINGFISH test is the biggest issue in view of the possibility of its adding appreciably to the radiation belt; so this will be the last one of this type. Also at issue is the possible interference with the next NASA 6-orbit Mercury (unmanned) flight scheduled for September 25th. These matters will be discussed with the President tomorrow.

Wednesday, September 5, 1962 - D.C.

I had breakfast at the Senate Restaurant with Senator John O. Pastore (next year's chairman of the JCAE) to discuss our general relationship.

At 10:15 a.m. I presided over Information Meeting 191 (notes attached). We discussed the single administrator system, the NS SAVANNAH problems, the add-on DOMINIC tests, my coming meeting with Secretary Fred Korth and the coming Commission meeting with Jerry Tape of AUI, testimony for the SNAP and ROVER hearing next Tuesday, the FY 1964 budget, the Commission meeting schedule, etc.

Professor Dr. Osvaldo A. Di Landro, who is a member of the Teaching Staff of the Faculty of Veterinary Medicine of the University of Uruguay and a delegate to the National Commission of Atomic Energy of Uruguay, stopped in to pay his respects and to wish me continued success in my job.

I attended a luncheon at the National Academy of Sciences given by President Fred Seitz in honor of Dr. Joja, President of the Romanian Academy. Others present included the Romanian Ambassador, Wiesner and Walt Whitman.

At 2:45 p.m. I met with Jules Rips (President Atomic Corporation of America), Victor Aleck (Vice President, United Chemicals), John Rowe (UCLA), and Russell Poor (AEC) to discuss Atomic Corporation of America's program for which they want AEC support.

From 5:10 p.m. to 6:30 p.m. I attended a meeting in the Cabinet Room of the White House with President Kennedy, Bundy, McNamara, Jerry Johnson, Haworth, Wiesner, Scoville, Keeny, Rusk, Webb, Bell, Fisher and Seamans to discuss add-on atmospheric tests in the DOMINIC series. The President directed that we cut the proposed eleven to eight tests and to relate the alternative schedule to Astronaut Schirra's September 23rd flight. The President suggested dropping URRACA. In a later meeting, dominated by McNamara, it was decided to drop URRACA, THUMBELINA (a Los Alamos shot) and a DOD high altitude shot.

I had the opportunity to talk with Secretary McNamara, in the presence of Bell and Harold Brown, about the organization for SNAP-50 and as far as we could tell he seemed to go along with what Brown had written for Gilpatric, i.e., an organization set up in AEC. He wants, however, to think more about the funding. I invited Brown to attend the meeting we are having with Zuckert and Webb, which will probably be on Friday. I said I have talked with Webb and I think he and Seamans, and probably Zuckert, are thinking about the tri-agency funding plan. Brown said that Zuckert doesn't particularly like the AEC approach.

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

UNCL. BY DOE
NOV 86

COPY NO. 15

September 5, 1962

INFORMATION MEETING 191

10:15 a.m., Wednesday, September 5, 1962 - Chairman's Office, D. C.

1. Chairman's Breakfast Meeting with Senator Pastore Today.

2. Congressman Holifield's August 31 Letter re AEC Nuclear Power Study.

The Chairman noted the constructive comments of Mr. Holifield on the draft report, and said the draft will hopefully be transmitted to the Bureau of the Budget next week. Dr. Haworth said he would discuss the draft report with Commissioners Ramey and Palfrey today.

3. Mr. John Hall's Suggestion re Toll Processing Proposal.

The Commissioners discussed briefly Mr. Hall's suggestion that the Chairman, in his IAEA speech, propose U.S. cooperation in establishment of toll processing with the agency as broker. The Chairman requested consideration of the legal aspects and proposed draft general language. (GC, Wells, Secy.)

4. Organizational Placement of the Division of Plans and Reports (see General Manager's Memorandum of August 8, 1962).

The Chairman suggested Messrs. Ramey and Palfrey review the General Manager's recommendation for discussion on Friday, September 7. (Brown, Secy.)

5. Commissioners' Meeting with Mr. Webb and Secretary Zuckert to Discuss Management of the SNAP-50 Program.

The Chairman noted the Monday meeting and suggested the Commissioners and General Manager attend. The possibility of scheduling the meeting on Saturday is to be explored. (Brown, Secy.)

(Dr. Haworth left the meeting at this point)

6. Proposed Test Schedule.

The Chairman discussed briefly the proposed schedule and draft letter to the President which the General Manager will review with Messrs. Ramey and Palfrey.

7. Chairman's Luncheon Meeting, Friday, September 7 with Secretary of the Navy Korth.

The Chairman said he will meet with Secretary Korth to discuss the proposed Camp Pendleton site for the Southern California Edison reactor, and possibly the procedure for rotation of commanders of nuclear ships.

8. Commissioners' Meeting with Dr. Tape, AUI, to Discuss AEC-AUI Contract.

The Chairman said Dr. Tape had discussed with him AUI's desire to obtain a management fee and additional flexibility in contract administration. The General Manager noted that the staff has gone as far as it can in its negotiations of the contract under present Commission policy. The Commissioners suggested the desirability of meeting with Dr. Tape on Friday, September 7 to discuss the policy issues.

9. Testimony for ROVER-SNAP-PLUTO Hearings, September 11, 12 and 13.

The General Manager reported that the testimony is in draft for early circulation to the Commissioners. The Commissioners discussed briefly AEC's position on the PLUTO Program, and the Chairman said he would telephone Dr. Harold Brown on this matter today. (Brown)

10. AEC 1095/6 - LONG RANGE PLAN AND ASSOCIATED POLICY ISSUES and AEC 1095/7 - STAFF ACTION ON OUTSTANDING POLICY ISSUES.

The Chairman suggested the desirability of early review.

11. Exchange of Information with the French re Heat Exchangers.

The Chairman referred to the problem of transmittal of information to the French on this and other matters and suggested further discussion on Friday, September 7. (Brown, Secy.)

12. French Request for Exchange of Information on the Safety of Atomic Weapons.

The General Manager said he would determine whether there is a ~~pending~~ study in progress ~~request~~.

13. Proposed Language for Inclusion in Early Routine Announcement of Soviet Nuclear Test.

The Commissioners agreed the language should not be included if there are objections by the White House and CIA.

14. Opening Remarks by a Commissioner at the Third Round Conference, Monday, September 10.

The Chairman suggested discussion in connection with agenda planning on Friday, September 7. (Secy.)

15. Schedule of Commission Business Through Tuesday, September 11.

The Commissioners agreed to the following tentative additions to the schedule:

a. Thursday, September 6 (p.m.) - Preliminary discussion of AEC 1095/8 - FY 1964 BUDGET ESTIMATES.

b. Friday, September 7 - Consideration of Executive Regulatory matters.

c. Saturday, September 8 - Consideration of AEC 1095/8 - FY 1964 BUDGET ESTIMATES or meeting with Mr. Webb and Secretary Zuckert.

d. Monday, September 10 (p.m.) - Consideration of AEC 25/220 - PROPOSED AIR FORCE SAFETY RULES, AEC 25/ - PROPOSED ARMY SAFETY RULES and AEC 1095/8 - FY 1964 BUDGET ESTIMATES or meeting with Mr. Webb and Secretary Zuckert.

16. Raw Materials Procurement and Weapons Requirements.

Mr. Ramey commented on the Commission's discussion of AEC 20/143 and its relationship to weapons requirements, marginal ore producers, etc., and the Chairman suggested the General Manager and staff review the background material on this matter with Mr. Ramey. (Johnson)

17. Stanford Linear Accelerator Advisory Committee Members.

The Commissioners had no objection to the appointment of Messrs. Rau and Lyle Smith of Brookhaven.

18. General Manager's Report on Settlement of Strike at Rocky Flats.

PRESENT		DISTRIBUTION
Dr. Seaborg	Gen. Luedecke	Commissioners
Dr. Haworth	Mr. Ferguson	General Manager
Mr. Ramey	Mr. Brown	General Counsel
Mr. Palfrey	Mr. Henderson	Secretary
	Mr. McCool	

W. B. McCool
Secretary

Thursday, September 6, 1962 - D.C.

From 10:35 a.m. to 11:15 a.m. I attended a meeting of the National Security Council at the White House. Present were: the President, McNamara, Harold Brown, Decker, Bromley Smith, Haworth, Murrow, Bundy, McDermott, Rusk, Stevenson, Ball, Foster, Wiesner, McGhee, Gerald Johnson, Nitze, Charles Johnson, Webb, Seamans, Kaysen, Bell, Scoville, Robert Kennedy and others. As a result of the meeting yesterday with the President, in which it was decided to reduce the 11 Johnston Island events (five developmental and six high altitude tests) to eight, it was decided to drop the AEC HAYMAKER PRIME and URRACA tests and the DOD high altitude test. The President raised questions about including THUMBELINA, the developmental Los Alamos test. On the basis of my representations, the President decided that, in the balance of the developmental base that this would give Los Alamos, it counterbalances the disadvantage of the fallout.

Prior to the meeting, the President was given a memorandum, signed by Secretary McNamara and me, and dated today, which included HAYMAKER PRIME, but not THUMBELINA, on the basis of the preliminary discussions in the meeting with the President yesterday. In view of today's discussion, this memorandum will be revised to reflect the decisions made, i.e., substitution of THUMBELINA for HAYMAKER PRIME. It includes two alternates for the eight tests, depending on whether Astronaut Schirra goes into orbit on September 25th as scheduled, or is delayed, because the BLUEGILL shot must not go until after his orbiting.

It was decided that the announcement would be the regular AEC-DOD announcement, as a follow-up of that which announced the closing of the Johnston Island danger zone, and which indicated that such a new announcement would precede the reopening of this zone.

The addition of the four developmental tests to the series, which will end early in November, will be played in a low key. Special attention will be paid to the problem of fallout from the THUMBELINA event.

At 2 p.m. Haworth and I met with Ambassador Smyth to discuss IAEA problems, especially the U.S. safeguards policy and its effect on the use of U.S. fuels in other countries. We also discussed the question of India's obtaining their Tarapur reactor from a U.S. manufacturer and our lack of a safeguards position on this.

At 2:30 p.m. I met with Spanish Ambassador Antonio Garrigues and Jamie MacVeigh, representing Union Electrica Madrilena. I assured them that the U.S. has an open mind on toll enriching, which is important in determining whether Spain buys a U.S. power reactor.

At 3 p.m. I presided over Commission Meeting 1866 (action summary attached). This was the first Commission meeting attended by Commissioners Palfrey and Ramey. Our main discussions concerned alien controls in the Princeton contract and the FY 1964 budget.

Friday, September 7, 1962 - D.C.

At 10:30 p.m. I presided over Information Meeting 192 (notes attached).

At 11:30 a.m. and 4:15 p.m. I presided over Commission Meetings 1867 and 1868, respectively (action summaries attached), where we discussed the FY 1964 budget.

I had lunch with Secretary Korth (Navy) in his Pentagon dining room. We discussed the matter of obtaining a site for the Southern California Edison Company reactor at Camp Pendleton. The Secretary said he has today responded to Jack Horton's

5516-104

UNITED STATES GOVERNMENT

Memorandum

UNCL. BY BGE
NOV 86

TO : A. R. Luedecke, General Manager

DATE: September 7, 1962

Approved A R L
A. R. Luedecke

FROM : W. B. McCool, Secretary

Original signed
W. B. McCool

Date 9/7/62

SUBJECT: ACTION SUMMARY OF MEETING 1866, THURSDAY, SEPTEMBER 6, 1962
2:55 P.M., ROOM 1113-B, D. C. OFFICE

SYMBOL: SECY:JCH

Commission Business

1. Minutes of Meeting 1858

Approved, as revised.

2. AEC 1114/1 - Extension of Contracts with Princeton University

Approved, as revised. (Vinciguerra)

The Commission requested the establishment of the following alternatives for disposition of the Soviet Bloc Nationals and Alien Controls issue:

a. Attempt to negotiate for inclusion of the contract articles listed in paragraph 6b of AEC 1114/1;

b. If a is unsuccessful, an attempt should be made to negotiate a continuation of provisions in the current Princeton contracts and a reopener clause; and

c. If b is also unsuccessful, an attempt should be made to extend the present contracts for thirty days.

3. AEC 1116 - U.S.-U.K. Cooperation Using U-233 in ZENITH Facilities

Approved. (Pittman-Wells)

4. AEC 1095/8 - FY 1964 Budget Estimates

Discussed.

The Commission specified disposition of the following policy items and noted they would be discussed during further consideration with the Division Directors:

a. Special Nuclear Materials Program

(1) Allied Chemical - The Commission requested further review of the estimated incremental out-of-pocket costs.

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185

the possibility of alternate contract and production arrangements, and the use of the facilities for other industrial processes. (Abbadessa-Tremmel)

(2) Lithium Production - The Commission requested close review of lithium-7 requirements. (Abbadessa-Baranowski)

(3) Heavy water plant start-up - This item should not be included in the Budget Estimates. (Abbadessa)

b. Weapons Program

(1) Off-Continent testing - The Commission requested further review of the estimated cost for an all air-borne operation. This item should be listed separately from other testing costs. (Abbadessa-Betts)

(2) Christmas Island readiness capability - This item should be included as a separate line in the program budget. (Abbadessa-Betts)

(3) General readiness capability - Funds for this item should be included in the program budget. (Abbadessa-Betts)

c. Reactor Development Program

(1) Large Central station reactor - Further consideration will be given during discussion of the program budget.

(2) R&D on natural uranium, heavy water prototype power reactor - This item should not be included in the Budget Estimates. (Abbadessa)

(3) R&D for Maritime application - Further consideration will be given during the discussion of the program budget.

(4) Rocket Propulsion reactors (NERVA) - Further consideration will be given during discussion of the program budget.

(5) Missile Propulsion reactors (PLUTO) - Further consideration will be given during discussion of the program budget.

(6) SNAP 10A Follow-on development - This item should not be included in the Budget Estimates. (Abbadessa)

Item of Information

Meeting with Secretary Zuckert and Mr. Webb - 2:00 P.M., Friday, September 7, 1962.

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

UNCL. BY BOE
NOV 86

COPY NO. [illegible]

September 7, 1962

INFORMATION MEETING 192

10:35 a.m., Friday, September 7, 1962 - Chairman's Office, D. C.

1. UK Request re Underground Test - NTS.

The Chairman said upon receipt of the formal request we should move expeditiously to obtain White House approval. (Betts)

2. September 6 NSC Meeting.

The Chairman reported on the discussion of the proposed series and the decision. The Commissioners suggested clarification of the specifics of the approved events in informing the Joint Committee.

3. Commissioners' 2:15 p.m. Meeting Today with Mr. Webb and Secretary Zuckert to Discuss Management of the SNAP-50 Program.

4. Chairman's Luncheon Meeting with Secretary Korth Today.

5. Status of Allis Chalmers Progress on PM-3 Project.

The Chairman expressed concern at the report by Allis Chalmers on the revised schedule and additional cost. The General Manager discussed additional questions raised by the National Science Foundation and the problem of logistical support by the Navy and said he would have an early recommendation to the Commission on alternative disposition.

6. Commission Representation at the Dedication of the PM-1 Reactor at Sundance, Wyoming, September 18, 1962.

The Commissioners requested the General Manager to arrange appropriate attendance.

7. Organizational Placement of the Division of Plans and Reports (see General Manager's Memorandum of August 8, 1962).

The Commissioners had no objection to the General Manager's recommendation. (Tackman)

8. Exchange of Information with French re Heat Exchangers.

The Commissioners noted the General Manager's report that the Department of State accepts the AEC view that no exchange would proceed pending a revision of national policy.

9. Chairman's Testimony for SNAP, ROVER and PLUTO Hearings, September 11, 1962.

The Chairman noted receipt of the draft testimony on SNAP and ROVER and the General Manager said testimony on the PLUTO program will be circulated shortly.

10. Agenda for the Week of September 10, 1962.

Approved as revised. (Secy)

11. Uranium Procurement Stretch-Out.

The Chairman requested a determination of the status of the Commission's letter at the BOB. (Henderson)

12. Chairman's Statement at Forthcoming Sixth IAEA General Conference.

a. Renewal of U.S. offer of special nuclear material for medical research and therapy.

Approved. (Henderson-Wells)

b. Revised statement re U.S. toll enrichment of natural uranium.

The Commissioners approved the revised language subject to coordination with the Department of State. (Henderson-Wells)

13. Chairman's Welcoming Remarks at the Third Round Conference with Industry, Monday, September 10, 1962.

The Chairman suggested the Commissioners review the proposed remarks.

14. General Manager's September 7, 1962 Memorandum to the Commissioners re Plutonium for Euratom Fast Reactor Requirements.

The General Manager noted his circulation of the proposed position for the Chairman to take in his discussion with Mr. Chatenet.

15. Revised Routine Announcement on Future Soviet Nuclear Tests.

The Chairman noted White House approval of the revised version. (Clark)

16. Director of Reactor Development's Testimony for ROVER, SNAP and PLUTO Hearings, September 11.

Has been circulated.

17. Report on KIWI-B1B Test.

18. Atomic Bomb Casualty Commission Strike.

The General Manager reported that the strike in Japan had been settled.

19. Nevada Power Company Injunction re Amargosa Contract.

The General Manager noted AEC's request for membership on a basis limited to the terms of the contract and current discussions with the Department of Justice as to AEC's appearance as a witness at the hearings.

20. Los Alamos Strike.

The General Manager noted that the Ching Panel has under discussion.

PRESENT		DISTRIBUTION
Dr. Seaborg	Gen. Luedecke	Commissioners
Dr. Haworth	Mr. Ferguson	General Manager
Mr. Ramey	Mr. Henderson	General Counsel
Mr. Palfrey	Mr. McCool	Secretary

W. B. McCool
Secretary

OPTIONAL FORM NO. 10
5010-104
UNITED STATES GOVERNMENT

Memorandum

UNCL. BY DOE
NOV 86

TO : A. R. Luedecke, General Manager

DATE: September 7, 1962
Approved
A. R. Luedecke
Date

FROM : W. B. McCool, Secretary Original signed W. B. McCool

SUBJECT: ACTION SUMMARY OF MEETING 1867, FRIDAY, SEPTEMBER 7, 1962 11:50 A.M., ROOM 1113-B, D. C. OFFICE

SYMBOL: SECY:JCH

Commission Business

1. AEC 1095/8 - FY 1964 Budget Estimates

Discussed.

Raw Materials

The Commission approved the General Manager's recommended budget for Raw Materials as follows:

Operating Expenses $384,671,000

Capital Plant and Equipment $37,000
(Abbadessa)

Special Nuclear Materials

Operating Expenses

The Commission requested informal discussions with the Bureau of the Budget on the manner of estimating AEC out-of-pocket costs re the Allied Chemical policy issue. (Abbadessa)

The Commission noted the desirability of preproducing lithium-7 prior to stopping lithium production. (Abbadessa-Baranowski)

The Commission reiterated that funds for Heavy Water Plant start-up should not be included in the FY 1964 Budget Estimates. (Abbadessa)

The Commission requested a briefing for Commissioners Ramey and Palfrey on cascade power operations and future power requirements. (Baranowski)

Capital Plant and Equipment

The Commission requested further consideration of the Hot Cell Additions proposed by Dupont during discussion of the Reactor Development Budget Estimates. (Abbadessa-Pittman-Baranowski)

OPTIONAL FORM NO. 10
5010-104
UNITED STATES GOVERNMENT

Memorandum

UNCL. BY DOE
NOV 86

TO : A. R. Luedecke, General Manager

DATE: September 8, 1962

Approved A. R. Luedecke

FROM : W. B. McCool, Secretary

Original signed
W. B. McCool

Date 9/7/62

SUBJECT: ACTION SUMMARY OF MEETING 1868, FRIDAY, SEPTEMBER 7, 1962
4:15 P.M., ROOM 1113-B, D. C. OFFICE

SYMBOL: SECY:MK

Commission Business

AEC 1095/8 - FY 1964 Budget Estimates

Discussed.

Weapons Program

Operating Expenses

The Commission approved the General Manager's recommended budget estimates. (Abbadessa-Betts)

The Commission requested new estimates for Off-Continent tests which would exclude budget estimates for maintaining readiness at Christmas Island. The letter of transmittal to the Bureau of the Budget should point out that if future atmospheric and space testing is approved additional funds would be needed for such activities. (Abbadessa-Betts)

The Commission also requested that the Weapons Budget justification should break out separately estimates for the maintenance of a general readiness capability. (Abbadessa-Betts)

Capital Plant and Equipment

The Commission approved the General Manager's recommended budget estimates with the understanding that you would give further consideration to the retention of Project 64(18) - Development, Support and Test Laboratory, South Albuquerque, New Mexico.

The Commission noted it would consider further the question of including Equipment in the Capital Plant category. (Abbadessa-Betts)

Item of Information

Hearing on ROVER, SNAP and PLUTO - September 13 and 14, 1962.

letter granting them permission to make the borings that were requested but has not yet committed himself on making the site available. He indicated, however, that he is favorably disposed to making the site available. We agreed that selling the land would be best; but I indicated that, if it must be a lease, it should be of a type where the recapture provision would be acceptable to Southern California Edison.

I assured him that the plant would not interfere with the beach area immediately north nor with the use of the swampy area just north of that which is used for landing craft maneuvers. I explained to him the value of this particular plan to the whole civilian nuclear power program. During the course of our conversation on the relations between the Department of the Navy and the AEC, which we both agreed were good, we got into a discussion of the future of the Nuclear Reactors Office. I indicated our satisfaction with Admiral Rickover, saying that he has the Commission's complete confidence, and that a suitable replacement for him, if he retires in the spring of 1964, would, indeed, be difficult to find. I indicated that if he could not be continued as a member of the Navy that possibly he could wear a civilian AEC hat in continuing to preside over the joint office which would require concurrence by the Navy. The Secretary seemed to be sympathetic and, in particular, seemed to like the civilian approach, pointing out that this might offer the opportunity for a Navy man to understudy him looking toward eventual replacement in the future.

I referred to our exchange of correspondence earlier this year and the Commission's continuing interest in the safety aspects of, and participation in the training of officers for, nuclear ships. I indicated I feel the tour of duty for executive officers on ships like the Enterprise should be three years. The Secretary wondered whether a two-year tour, during which (in the second year) and understudy officer is in training with the view to taking charge in his second year, would be satisfactory. In the course of the discussions, I indicated it is the feeling of the AEC that the Navy should build more nuclear powered ships even though they cost more; that the extra cost is more than offset by the fact that they will do things that the other ships cannot do at all. Although the Secretary was sympathetic to this point of view, he did indicate that the people in the Navy are impressed by the cost factor.

AT 2 p.m. I met with Jim Webb and Bob Seamans of NASA, Gene Zuckert and Brockway McMillan of the Air Force and Harold Brown of DOD. Also present were the other Commissioners, General Luedecke, Frank Pittman and other AEC staff. The purpose of the meeting was to discuss the management organization of SNAP-50. We seemed to be successful in resolving this. AEC will have the responsibility, with an Air Force man, on loan to the AEC, in charge; NASA and the Air Force will appoint deputy managers. The AEC may handle all the funding, although this is still to be settled. A written agreement is being drawn up. This seems to be a very satisfactory ending to a long, drawn-out negotiating problem.

Saturday, September 8, 1962 - D.C.

The Commission met at 10:15 a.m. (Meeting 1869, action summary attached) to discuss the FY 1964 budget. About 1 p.m. Commissioner Palfrey suffered a seizure which rendered him unconscious. He was taken by ambulance to Georgetown University Hospital, although he regained consciousness before he was out of the H Street building. I talked to Clochette Palfrey, his wife, and to his physician, Dr. Welch (both in New York), and to Dr. Mendelson at the Georgetown Hospital. The diagnosis is not clear since he hasn't had such an occurrence before, although he does suffer from high blood pressure.

OPTIONAL FORM NO. 10
5010-104
UNITED STATES GOVERNMENT

Memorandum

UNCL. BY DOE
NOV 86

TO : A. R. Luedecke
General Manager

DATE September 10, 1962

FROM : W. B. McCool, Secretary Original signed W. B. McCool

Approved ARL
Date 9/11/62

SUBJECT: ACTION SUMMARY OF MEETING 1869, SATURDAY, SEPTEMBER 8, 1962, 10:15 A.M., ROOM 1113-B, D. C. OFFICE

SYMBOL: SECY:JCH

Commission Business

AEC 1095/8 - FY 1964 Budget Estimates

Discussed.

Reactor Development

Operating Expenses

The Commission approved the General Manager's recommendation of $96,990,000 for Naval Propulsion Reactors. (Abbadessa-Pittman)

The Commission approved the following items and amounts for Civilian Power Reactors:

(In thousands)

A. Water Cooled Reactors

(1) Shippingport	$12,920
(2) Large Central Station Reactors (seed and blanket)	11,000*
(3) Experimental Billing Water Reactor	100
(4) BORAX V	1,130
(5) Puerto Rico Water Resources Authority	1,420
(6) Heavy Water Components Test Reactor	2,600
(7) Canadian Cooperative Program	1,400
(8) Pressurized Water - Other	-0-
(9) Light Water - Other	3,500
(10) Heavy Water - Other	2,800**
(11) Water Cooled - Other	3,500

* The Commission noted approval of this item is not to be considered as a commitment to construct the reactor and is contingent upon the outcome of the report.

** The Commission noted tentative approval of this item pending further staff review of the specific amount.

The Commission requested establishment of a new line item for Water Cooled Reactors in the amount of $3.0 million for R&D for Spectral Shift Reactor. (Abbadessa-Pittman)

(In thousands)

B. Organic Cooled Reactors

(1) Organic Moderated Reactor Experiment. .	$1,847
(2) Experimental Organic Cooled Reactor . .	3,150
(3) Organic Industrial & Process Heat Reactor	3,246
(4) Organic Cooled Reactor - Other - Civilian	1,480

The Commission requested the footnote for items b1 and b3 above be revised to state such funds would be unnecessary if the Commission does not accept the ORHIT Project. The matter should also be reflected in the transmittal letter. (Abbadessa-Pittman)

(In thousands)

C. Gas Cooled Reactors

(1) Experimental Gas Cooled Reactor (EGCR).	$3,992
(2) Gas Cooled Reactors - Other - Civilian.	8,100

I wrote to my mother and brought her up to date on my activities, and sent her some photos and copies of my Williamsburg talks.

I worked in my office and at home on AEC papers and forthcoming speeches.

Sunday, September 9, 1962

I worked on my forthcoming speeches and discussed with Haworth our report to the President on the civilian nuclear power program.

The family enjoyed a picnic dinner at the home of the Paul Aebersold family at their Chevy Chase, Maryland, home.

Monday, September 10, 1962 - Germantown

I had breakfast with Chet Holifield at the Congressional Hotel. We discussed an AEC reorganization (a single administrator, a three-man commission or a reorganization of the present form), the nuclear weapons testing program, my Whittier College talk, NPR prospects, etc.

At 10 a.m. I gave the opening remarks at the Third Round Power Demonstration Reactor Program Conference being held in the Germantown auditorium.

At 10:45 a.m. I presided over Commission Meeting 1870 (action summary attached).

I had lunch in the cafeteria with Sir Mark Oliphant of Australia, Paul McDaniel, George Kolstad and Oscar Bizzell.

At 2 p.m. I presided over Commission Meeting 1871 (action summary attached). We discussed the FY 1964 budget.

I attended a black tie dinner on the USS Sequoia as a guest of Secretary McNamara. Others present included Peter Thorneycroft (U.K. Minister of Defense), Sir Robert Scott (U.K. Defense Finance Officer), General West (of U.K.), Secretaries Eugene Zuckert, Fred Korth and Cyrus Vance, Harold Brown, Sir Solly Zuckerman, Charles Hitch, General Lemnitzer, Paul Nitze and George McGhee.

Tuesday, September 11, 1962 - D.C.

At 10 a.m. I presided over Information Meeting 193 (notes attached).

At 11:30 a.m. I presided over Commission Meeting 1872 (action summary attached).

I attended a luncheon given by Secretary Averell Harriman at the Sheraton Park for the Australian Minister for External Affairs, Mr. Barwick. Secretary Harlan Cleveland, Secretary Rudiman and Ambassador Howard Beale were among the attendees.

At 2:40 p.m. I presided over Commission Meeting 1873 (action summary attached). We finished consideration of the FY 1964 budget; the total operating and construction budget, which we will request, amounts to about $3.4 billion.

I sent a letter to President Kennedy (copy attached) requesting approval for us to test a U.K. device in Nevada, underground.

I finished working with Haworth on our report to the President on civilian nuclear power and signed the enclosing letter (copy attached--to be dispatched on September 17th).

OPTIONAL FORM NO. 10
5010-104
UNITED STATES GOVERNMENT

UNCL. BY DOE
NOV 86

Memorandum

TO : A. R. Luedecke, General Manager

DATE September 10, 1962

Approved AES

FROM : W. B. McCool, Secretary

Original signed
W. B. McCool

Date 9/11/62

SUBJECT: ACTION SUMMARY OF MEETING 1870, MONDAY, SEPTEMBER 10, 1962, 10:45 A.M., ROOM A-410, GERMANTOWN, MARYLAND

SYMBOL: SECY:MK

Commission Business

1. AEC 25/220 - Proposed Air Force Safety Rules

   Approved. (Betts)

2. AEC 25/221 - Proposed Army Safety Rules

   Approved. (Betts)

3. AEC 891/11 - Development and Sale of Residential Building Lots at Los Alamos

   Approved. (Betts)

4. AEC 132/57 - FY 1963 Staffing Level for Nevada Operations Office

   Approved. (Tackman)

5. AEC 1043/8 - Lease of Heavy Water for Use in Canadian CANDU Power Reactor

   Approved, as revised. (Wells)

   The Commission requested that:

   a. Canada be required to render a one-year advance notification of a decision on facility construction;

   b. Clarification that return of the material will be as produced.

6. AEC 997/71 - Proposed Safeguard Arrangement for Indian Tarapur Project

   Approved, as revised. (Wells)

The Commission requested that it be strongly emphasized to the Indians that this discussion was taking place on a

technical level and was subject to the policy adopted by the United States Government with respect to the role of the IAEA in any arrangement with the Indian Government.

7. AEC 20/143 - Extension of Domestic Uranium Procurement Program from December 1, 1966 to December 1, 1970

Approved, as revised. (Johnson)

The Commission noted that any necessary escalation can be conducted within the established ceiling of $6.70 per pound of U_3O_8 and that in case of extreme inflation the matter be brought back for further Commission consideration.

8. AEC 827/47 - Authorization of a 10 BEV Fixed-Field Alternating Gradient Accelerator

Discussed.

9. AEC 1096/1 - Initiation of Design Studies for a Proton-Synchrotron of Several Hundred BEV

Discussed.

Item of Information

Draft Agreement in the Matter of Management of the SNAP-50 Program

UNITED STATES GOVERNMENT

Memorandum

This document consists of 7 pages

No. 7 of 33 copies. Series A

UNCL. BY DOE NOV 86

TO : A. R. Luedecke, General Manager

DATE September 11, 1962

Approved ARL

FROM : W. B. McCool, Secretary Original signed W. B. McCool

Date 9/12/62

SUBJECT: ACTION SUMMARY OF MEETING 1871, MONDAY, SEPTEMBER 10, 1962, 2:00 P.M., ROOM A-410, GERMANTOWN, MARYLAND

SYMBOL: SECY:MK

Commission Business

1. AEC 1095/8 - FY 1964 Budget Estimates

Discussed.

Reactor Development

Operating Expenses

The Commission approved the following items and amounts for Civilian Power Reactors: (Abbadessa-Pittman)

	(In thousands)
d. Liquid Metal Cooled Reactors	
(1) Experimental Breeder Reactor No. 1	$ 110
(2) Experimental Breeder Reactor No. 2	8,595
(3) Sodium Reactor Experiment	2,200
(4) Fast Reactors - Other	13,000
(5) Sodium Cooled Reactors - Other	7,390*
e. General R&D - Civilian	$2,500

The Commission approved the following amounts for the Power Demonstration Reactor Assistance Program: (Abbadessa-Pittman)

	(In thousands)
a. Water Cooled Reactors	$2,673
b. Organic Cooled Reactors	1,154

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* The $1.1 addition to the General Manager's Recommendation is for work on a second steam generator but does not include work on the sodium pump.

CLASSIFICATION CANCELLED
CHANGED TO OUO
BY AUTHORITY OF John Hoyle, Dir. Br.
BY EJH DATE 1-23-62

	(In thousands)
c. Gas Cooled Reactors	$ 695
d. Liquid Metal Cooled Reactors	1,276
e. Unsolicited Proposals FY 1963	6,202
f. Unsolicited Proposals FY 1964	3,000*
Total Power Demonstration Reactor Assistance Program	$15,000

The Commission approved the General Manager's recommendation of $7,000,000 for Euratom. (Abbadessa-Pittman)

The Commission approved the following amounts for Merchant Ship Reactors: (Abbadessa-Pittman)

	(In thousands)
a. Water Cooled Reactors N.S. SAVANNAH	$5,500
b. General R&D Merchant Ship	3,500
Total Merchant Ship and Reactors	$9,000

The Commission approved the following amounts for Army Power Reactors: (Abbadessa-Pittman)

	(In thousands)
a. Water Cooled Reactors	$1,600
b. Gas Cooled Reactors	3,810
c. Military Compact Reactors	8,000
d. General R&D - Army	2,600
Total Army Power Reactors	$16,010

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* Plus $17,000,000 for related obligations under Selected Resources.

The Commission approved the following items and amounts for the Rover Program: (Abbadessa-Pittman)

		(In thousands)
a.	KIWI - LASL	$15,300
	R&D	$ 5,988
	Fuel Fabrication	3,447
	Test Operations	3,965
	Reactor Fabrication	1,900
b.	NERVA	$78,291
	Aerojet General/Westinghouse	$75,291
	R&D	$27,096
	Fuel Fabrication	11,028
	Test Operations	5,500
	Reactor Fabrication	31,667
	SNPO-HDQS. - R&D	3,000
c.	Adv. Reactor Technology	$26,730
	LASL	$20,830
	R&D	$ 9,930
	Fuel Fabrication	5,400
	Test Operations	1,000
	Reactor Fabrication	4,500
	SNPO-HDQS. - R&D	2,800
	ANL - R&D	3,100
d.	NRDS Operations	
	REECO and Others - Test Operation	$ 9,500
	Total Rover Program	$129,821

The Commission approved a range of authorization ($4,000,000-$39,900,000) for Missile Propulsion Reactors, subject to DOD determination of program priority and analysis of effects on AEC budget. You said you would determine with Commissioner Haworth the amount to be included in AEC FY 1964 Budget Estimates after DOD determination.

The Commission approved the following items and amounts for the Satellite and Small Power Sources: (Abbadessa-Pittman)

		(In thousands)
a.	Radioisotope Power Units	$ 5,300
(1)	SNAP 7A & 7B	-0-
(2)	SNAP 7C & 7D	-0-
(3)	SNAP 7E	-0-
(4)	SNAP 9	-0-
(5)	SNAP 11	300
(6)	SNAP 13	300
(7)	High Power Thermionic Generator	850
(8)	Advanced Space Units	1,000
(9)	Advanced Terrestrial Units	700
(10)	Mixed Fission Product Prototype	400
(11)	Future Prototype Requirements	1,000
(12)	Radioisotope Supporting R&D	550
(13)	Refuelable Generator	200
b.	Reactor Power Systems Prototype Development	$53,348
(1)	SNAP 2	25,~~348~~ 25,894
(2)	SNAP 4	970*
(3)	SNAP 8	18,397
(4)	SNAP 10A	4,052
(5)	SNAP 10A Operational Dev.	2,637
(6)	SNAP 10 Follow on Development	-0-
(7)	General R&D Reactor Power Systems	1,398
c.	Advanced Space Power Systems	$35,342
(1)	SNAP 50 (Reactor Experiment)	17,563
(2)	SNAP 50 (Ground Prototype)	12,379**
(3)	Medium Power Reactor Experiment	3,400
(4)	General R&D Adv. Space Power Sys.	2,000
	Total Satellite and Small Power Sources	$93,990

* The reasons why the SNAP-4 was kept at this level should be pointed out to the BOB.

** An additional amount in the range of $8.0-$14.0 million to be added for conversion.

The Commission approved the following amounts for General Reactor Technology (including Thorium and Plutonium Utilization): (Abbadessa-Pittman)

		(In thousands)
a.	Applied Reactor Physics	$ 7,960*
b.	Reactor Fuels and Materials Development	32,000**
c.	Reactor Components Development	6,500
d.	Chemical Separations	9,235
e.	Radioactive Waste Processing Development	40
f.	Plutonium and Thorium Utilization	13,600
	Total General Reactor Technology	$69,335

The Commission approved the following amounts for Advanced Systems R&D: (Abbadessa-Pittman)

		(In thousands)
a.	Molten Salt Reactor Experiment	$ 5,295
b.	Pebble Bed Reactor Experiment	-0-
c.	Experimental Beryllium Oxide Reactor	2,850
d.	Ultra High Temperature Reactor Experiment	2,543
e.	LAMPRE	4,488
f.	Direct Conversion	5,927
g.	Research Reactor R&D	2,314
h.	Test Reactors R&D	1,830
i.	Other Advanced Systems R&D	5,000
	Total Advanced Systems R&D	$30,247

The Commission requested a report on how the funds for item i above will be utilized. (Pittman)

The Commission approved the following items and amounts for the Nuclear Safety Program: (Abbadessa-Pittman)

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* Includes an additional $290,000 to be utilized for the Hanford Lattice Facility.

** The increment over the General Manager's recommendation in the amount of $2,070,000 to be divided between High Temperature Materials Development and Reactor Fuels and Materials Development - Other, at the discretion of the Division.

		(In thousands)
a.	Spert	$ 3,150
b.	KEWB - R&D	-0-
c.	Other Reactor Kinetics	2,035*
d.	Chemical Reaction	1,600
e.	Reactor Containment	2,065
f.	Fast Reactor Safety	1,228
g.	Effluent Control R&D	6,885
h.	Engineering Field Tests	21,370
i.	Reactor Safety Analysis and Evaluation	250
Total Nuclear Safety		$38,633

The Commission approved the General Manager's recommendation of $2,294,000 for Operational Services. (Abbadessa-Pittman)

Capital Plant and Equipment

The Commission approved the following project and amounts for Capital Plant and Equipment: (Abbadessa-Pittman)

Projects Requiring Authorization			(In thousands)
a.	64(1)	Modification to Reactor & Test Facilities	$ 5,000
	64(2)	Prototype Power Reactor	55,000
	64(3)	Zero Power Plutonium Reactor (ZPPR), NRTS	2,650
	64(4)	Fast Reactor Test Facility NRTS	12,000
	64(7)	Military Compact Reactor (MCR), NRTS.	12,000**
	64(8)	Safety Test Engineering Program (STEP), NRTS	19,400
	64(9)	Power Burst Facility, NRTS	5,600
	64(12)	SNAP Components Test Facility CANEL	775
	64(13)	Env. Control of Machine Shop, CANEL	680
	64(14)	SNAP Development and Test Facilities.	1,400
	64(15)	Plant Modifications for LCRE and SNAP-50, NRTS	1,800
	64(16)	Research and Development Test Plants for Project Rover, LASL and NTS	5,000

* Includes restoration of $290,000 for R&D associated with Power Burst Facility.

** Increase over General Manager's recommendation is based on latest cost estimates.

(In thousands)

64(17)	Expansion of Expended Core Facility, NRTS.	$ 3,000
64(19)	Facilities for Handling Radioactive Material	1,000
64(20)	U-233 Metallurgical Development Laboratory	7,275
64(21)	High Temp. Lattice Testing Reactor, Hanford	2,500
64(23)	NRTS Road Network	2,740*
64(25)	Administration Building, ANL	7,500
64(27)	Heating Plant Boiler No. 5, ANL	1,900
64(28)	Advanced Engineering for FY 1965 Projects.	3,000
64(29)	General Plant Projects	12,000
Total Projects Requiring Authorization		$162,220

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* The Commission requested further analysis of unit costs.

b. Projects Authorized -0-

c. Equipment Not Included in Construction Projects

(In thousands)

1.	Civilian Power Reactors	$ 6,971
4.	Merchant Ship Reactors	300
5.	Army Power Reactors	450
6.	Naval Propulsion Reactors	1,810
7.	Rocket Propulsion Reactors	2,479
9.	Satellite and Small Power Sources	8,010
10.	General Reactor Technology	4,300
11.	Advanced Systems R&D	741
12.	Nuclear Safety	1,427
15.	Other Capital Equipment	13,357
Total Equipment Not Included		$40,045

GRAND TOTAL $202,265

Item of Information

News Reports re Testing Program

(Distribution over)

Distribution:

Addressee	1
Gen Mgr' Office	2,3
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Reference Section	6
D. C. Files	7
Policy Review	8
Mr. McKinney	9
Mr. Burnstad	10
Staff Assistant	11
Dr. Hewlett	12
Meeting Branch	13
Mr. Corso	14, 15, 16, 17, 18, 19
Mr. Calhoy	20
Chairman	21, 22,23

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

UNCL. BY DOE
NOV 86

COPY NO. 15

September 11, 1962

INFORMATION MEETING 193

10:00 a.m., Tuesday, September 11, 1962 - Chairman's Office, D. C.

1. Letter to Secretary of Defense re Transmittal of Information.

Approved for transmittal today. (Brown)

The Chairman suggested compilation of background material for Commissioners Ramey and Palfrey. (Secy)

2. UK Test at NTS (see AEC 1077/101).

The Chairman noted White House approval of the proposed test. (Betts)

3. NSC Action Memorandum re Test Program.

The Chairman noted the memorandum is available in his office for review.

4. Program for U-235 Production and 1972 Stockpile (see Letter to the President of 8/22/62 - AEC 580/165).

The Chairman noted the Presidential letter approving the proposed program is in preparation.

5. Draft Letter to Mr. William Foster, ACDA, re Arms Control in Outer Space.

The Commissioners discussed briefly the September 10 draft and the Chairman requested transmittal today or tomorrow subject to any comments or further discussion. (Brown) [illegible] 9/13

6. US-UK Barter Agreement re Special Nuclear Materials.

The Commissioners agreed that if the matter of cut-off is raised by the UK, it would be desirable to indicate our willingness to negotiate the matter.

7. Chairman's September 7 Luncheon with Secretary of the Navy Korth.

The Chairman commented that in his meeting with Secretary Korth, the Secretary seemed favorably disposed to use of the northern Camp Pendleton site for the Southern California Edison project. The Commission's position on port criteria and tours of duty of commanders of nuclear ships were also discussed.

8. Extension of Time for Submission of Proposal on Southern California Edison Reactor Project.

The Commission approved the General Manager's recommendation for an extension of 60 days from September 15, 1962 under the same terms of the existing proposal. (Pittman)

9. AEC Reactor Study

The Chairman said he would sign the inclosing letter today for transmittal after further review by Dr. Haworth and Mr. Ramey. Discussions with the Bureau of the Budget should indicate that the report is a draft without the benefit of definitive review by Commissioners Ramey and Palfrey.

10. Transfer of Special Nuclear Material to Australia

The Commission accepted the General Manager's recommendation to negotiate sale or lease in the amount of 4 kg. (Wells)

11. AEC Support of International Conference on Fast Neutron Physics (Rice University)

The Commissioners accepted the General Manager's recommendation for support. (Wells/McDaniel)

12. Hearing on Injunction re Amargosa Contract

The General Manager discussed Mr. Parks' memorandum of his discussions with the Department of Justice, and the Commissioners agreed that the Department should appear at the hearing, and that an appropriate AEC representative should be in attendance for testimony.

13. Draft Agreement re Joint Management of SNAP-50 Program

The Commissioners commented that the draft appears acceptable and suggested it should be discussed with the Bureau of the Budget at an appropriate time. (Pittman)

14. Testimony for SNAP-ROVER-PLUTO Hearings September 13

The General Manager noted the testimony has been circulated and requested comments prior to printing this evening.

PRESENT		DISTRIBUTION
Dr. Seaborg	Gen. Luedecke	Commissioners
Dr. Haworth	Mr. Hennessey	General Manager
Mr. Ramey	Mr. Ink	General Counsel
	Mr. Brown	Secretary
	Mr. McCool	

W. B. McCool
Secretary

ONAL FORM NO. 10
5010-104

UNITED STATES GOVERNMENT

Memorandum

UNCL. BY DOE
NOV 86

TO : A. R. Luedecke, General Manager

DATE: September 11, 1962

Approved A. R. Luedecke

FROM : W. B. McCool, Secretary Original signed W. B. McCool

Date 9/12/62

SUBJECT: ACTION SUMMARY OF MEETING 1872, TUESDAY, SEPTEMBER 11, 1962 11:25 A.M., ROOM 1113-B, D. C. OFFICE

SYMBOL: SECY:JCH

Commission Business

AEC 1095/8 - FY 1964 Budget Estimates

Discussed.

Security Investigations

The Commission approved a total of $7,495,000 for the Security Investigation Program. (Abbadessa)

Program Direction and Administration

Operating Expenses

The Commission requested a report and further discussion on the adequacy of technical staffing levels in Headquarters. (Tackman-Pittman)

The Commission approved the General Manager's recommendation of $69,919,000 for Program Direction and Administration Operating Expenses.

Capital Plant and Equipment

The Commission approved the General Manager's recommendation of $6,955,000.

Construction Engineering and Design

Capital Plant and Equipment

The Commission approved a program total of $5,000,000.

Community

The Commission approved the Community Budget as follows:

	(In thousands)
Operating Expenses	$ 9,579
Capital Plant and Equipment	6,237

Peaceful Nuclear Explosives

The Commission approved the Peaceful Nuclear Explosives Budget as follows:

	(In thousands)
Operating Expenses	$19,370
Capital Plant and Equipment	875

Isotopes Development

The Commission approved the Isotopes Development Budget as follows:

	(In thousands)
Operating Expenses	
Radioisotope Technology Development	$ 2,000
Isotopic Power Fuel Development	3,240
Radioisotope Production and Separation Technology	1,450
Process Radiation Development	2,100
Radiation Pasteurized Foods	1,300
New Total -	$10,090
Capital Plant and Equipment	
Program Total	$ 3,125

Training, Education and Information

The Commission approved the General Manager's recommendations with the following revisions:

Operating Expenses	(In thousands) General Manager's Recommendation	Commission Approved
Operation of Courses		
Radioisotope Training Courses.....	$ 305	$ 324
Fellowships		
(a) Physical Sciences and Engineering Fellowships ..... (b) Health Physics Fellowships.. (c) Industrial Hygiene Fellowships ..... (d) Industrial Medicine Fellowships ..... (e) Advanced Radiological Physics Fellowships	$1,681	$ 1,765
(f) Post Doctoral Fellowships	-0-*	119
Assistance to Schools		
Nuclear Training Equipment Grants.	$2,500	$ 3,000
Public Information Services		
Pictorial Materials	$ 170	$ 200
Capital Plant and Equipment		
Equipment not included in construction		
Operation of Courses	$ 47	$ 112

* Policy item.

OPTIONAL FORM NO. 10
5010-104
UNITED STATES GOVERNMENT

UNCL. BY DOE
NOV 86

Memorandum

TO : A. R. Luedecke, General Manager

DATE: September 12, 1962
Approved A. R. Luedecke
Date 9/11/62

FROM : W. B. McCool, Secretary Original signed W. B. McCool

SUBJECT: ACTION SUMMARY OF MEETING 1873, TUESDAY, SEPTEMBER 11, 1962
2:40 P.M., ROOM 1113-B, D. C. OFFICE

SYMBOL: SECY:MK

Commission Business

1. AEC 1095/8 - FY 1964 Budget Estimates

Approved, as revised. (Abbadessa)

The Commission noted that the FY 1964 Budget Estimates do not include any funds for a special Emergency Fund appropriation.

The Commission requested that you discuss with the BOB alternative methods for listing Equipment in the FY 1964 Budget Estimates, and review your recommendations with Dr. Haworth.

The Commission noted Mr. Abbadessa's report regarding BOB views on the renewal of the Allied Chemical Company contract and requested a report on alternate uses of the Allied facility. (Baranowski-Tremmel)

Biology and Medicine Program

Operating Expenses

The Commission approved the Biology and Medicine Program with the following exceptions: (Abbadessa-Dunham)

	(In thousands) General Manager's Recommendation	Commission Approved
Molecular and Cellular Level Studies	$13,042	$14,000
Radiological and Health Physics and Instrumentation	5,649	6,000
Selected Beneficial Applications	3,265	3,305
Program Total	$78,024	$79,373

Capital Plant and Equipment

The Commission approved the General Manager's recommendation for Capital Plant and Equipment with the following exceptions:
(Abbadessa-Dunham)

	(In thousands) General Manager's Recommendation	Commission Approved
a. Projects Requiring Authorization		
64(6) Atmospheric Physics Building, Hanford Laboratories	$ -0-	$ 350
64(10) Air Conditioning Argonne Cancer Research Hospital.....	650	-0-
b. Equipment not Included in Construction Projects	3,320	3,600
Total Capital Plant and Equipment	$7,385	$7,365

Physical Research

The Commission approved the General Manager's recommendation for the Physical Research Program with the following exceptions:

Operating Expenses	(In thousands) General Manager's Recommendation	Commission Approved
a. Program Total		
Physics and Mathematics		
High Energy Physics	$ 85,566	$ 94,648
Other Physics and Mathematics .	37,714	38,014
New Subtotal	$123,280	$132,662
Chemistry	52,555	52,575
		240,05
Program Total	$230,645	$244,047

Physical Research - Continued

b. Breakdown of Exceptions by Program:

	(In thousands) General Manager's Recommendation	Commission Approved
High Energy Physics Program		
Princeton Pennsylvania Acc ..	$ 6,786	$ 6,900
Argonne National Laboratory ..	11,690	12,500
MURA	-0-	2,280
ORNL	323	2,463
Washington Administered	12,350	16,070
Total	$85,566	$94,648
Other Physics and Mathematics		
Washington Administered ...	$ 2,500	$ 2,800
Total	$37,714	$38,014
Chemistry		
Atomics International	$ 780	800
Total	$52,555	$52,575
Capital Plant and Equipment		
a. Projects Requiring Authorization		
64(7) Steam Plant Additions BNL ...	$ 750	$ 850
64(23) University Accelerators.,	*	10,000
64(25) Low Energy Accelerator,BNL	12,000**	12,000
Total	$59,940	$82,040
b. Projects Authorized		
61-f-7 Linear Accelerator, Stanford	$36,000**	$36,000
Total	$36,000	$36,000
c. Equipment Not Included in Construction		
High Energy Physics ..	$21,661	$21,811
Total	$44,472	$44,622
Total Plant and Equipment	$141,212	$163,462

* Policy item.
** These items were not originally included in the General Manager's recommendations in AEC 1095/8.

2. AEC 855/57 - Project NERVA - Application of an Incentive-Type Fee Arrangement to Contracts with Aerojet-General and Westinghouse

Approved. (Vinciguerra)

The Commission requested that it be made clear to all interested parties that this is a trial case and does not establish a precedent.

You noted that the specific percentages quoted in paragraph 10 of AEC 855/57 may have to be negotiated with NASA and thus are subject to change. You emphasized that in the negotiations the staff will not exceed the normal maximum NASA fee level.

3. AEC 1029/7 - Proceeding with and Acquisition of Site for VELA UNIFORM Experiments

Approved. (Betts)

4. AEC 1077/100 - Christmas Island

Approved as revised.

The Commission requested that:

a. The first sentences of paragraph 1 and paragraph 3 of AEC 1077/100 be changed in accordance with the discussion at the Meeting. (Betts) Appd. "B"

b. The Laboratory guidance contained in Appendix "F" to AEC 1077/100 be held in abeyance pending decisions on Christmas Island and other test planning. (Betts)

5. Byrd Station Reactor

The Commission approved your recommendation that the contract with Allis-Chalmers Manufacturing Company ~~be terminated~~ you be authorized to terminate.

The Commission requested recommendations on alternate methods of constructing the Byrd Station Reactor and noted the JCAE should be notified at the appropriate time. (Pittman)

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NOV 86

901309

(PRES)
GT FILE

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

OFFICE DIARY
GLENN T. SEABORG
Chr USAEC, 1961-72
FOLDER-PAGE 21041

SEP 11 1962

Dear Mr. President:

Sir David Ormsby Gore, British Ambassador, on behalf of his Government has requested of Secretary of State Dean Rusk that authorization of the United States Government be granted to test a United Kingdom nuclear device underground at the Nevada Test Site. Sir Roger Makins, Chairman of the United Kingdom Atomic Energy Authority, has proposed to Chairman Glenn T. Seaborg that technical arrangements similar to those used in the testing of the British nuclear device in the PAMPAS event at the Nevada Test Site in March 1962 be used for the new British test, if it is authorized. The proposed test would be conducted under the Agreement between the United States and the United Kingdom for Cooperation on the Uses of Atomic Energy for Mutual Defense Purposes.

The British device proposed for testing is an improved version of [redacted] system which was tested in PAMPAS. The estimated yield will be about [redacted]TED We are informed that the device is being developed for use in a British nuclear weapons system.

The arrangements for the proposed test, which has been given the code name of TEMPAC, provide, in essence, that the United Kingdom will: provide the devices to be tested; furnish scientific and technical assistance; furnish all requested information concerning the device and the results of the test; and reimburse the costs of the tests. The U. S. Atomic Energy Commission will be responsible for transporting the disassembled nuclear devices to Nevada; will provide the test facilities; will be responsible for the safety of the tests; and will provide radiochemical samples and other diagnostic data to the United Kingdom. It is expected that the British test will be conducted during the first part of December 1962.

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WITH DELETIONS
BY AUTHORITY OF DOE/OC
6/6/86
REVIEWER
6/26/86

If the requested test is authorized, the fact of a joint United States - United Kingdom nuclear test at Nevada will be unclassified. It is expected that a brief joint public announcement of the test will be made at a time and in a manner to be agreed upon.

The Secretary of State concurs with the Atomic Energy Commission in recommending that the proposed test firing of a British nuclear device underground at Nevada be authorized and conducted.

Respectfully yours,

(Signed) Glenn T. Seaborg

Chairman

The President
The White House

ENDORSEMENT

The testing of a British nuclear device underground at the Nevada Test Site is authorized. The transmission to the United Kingdom of radiochemical samples and other diagnostic data from the test is authorized.

bcc: Secretary of State Dean Rusk, Cys 3A, 4A

Distribution:
1A, 2A: Addee
3A, 4A; Secretary of State
5A, 6A: Chairman President
7A: Commissioner Haworth
8A: Commissioner Palfrey
9A: Commissioner Ramey
10A: Commissioner Wilson
11A: General Manager
12A: Secretariat
13A: CGC (Mr. Parks)
14A: Test Branch, DMA
15A: Plans Retained
16A: Plans Reader
17A: Reader
18A: Locator
19A: DMA Files

CGC

MA:Plans MA AGM DMA GM

JMcBride/rch Betts

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NOV 85

September 11, 1962

(Disp. 9/17)

Dear Mr. President:

I am pleased to submit herewith a draft of the report resulting from our "new and hard look at the role of nuclear power in our economy," as requested by you on March 17. The report will be finalized after it has had the benefit of your comments and those of your staff and other interested offices.

This study has been greatly aided by the information and counsel furnished by the Department of the Interior, the Federal Power Commission, the General Advisory Committee of the Atomic Energy Commission, the National Academy of Sciences Committee on Natural Resources, and two Congressional committees - the Joint Committee on Atomic Energy and the Senate Committee on Interior and Insular Affairs. We have also conferred with the Bureau of the Budget, the President's Science Advisory Committee, and many representatives of industry. However, we take full responsibility for the conclusions and recommendations of the report.

Those who have participated in the study you requested are agreed that it proved to be very timely. While the Commission had been proceeding on a considered course in general accord with the 10-year civilian power program approved in 1958, that program is now on the threshold of attaining its primary objective of competitive nuclear power in high fuel-cost areas by 1968. Nuclear power costs have been reduced more than 80 per cent from the first demonstration power plant. However, the efforts had probably become too much focused on short-term objectives. This restudy made it apparent that, for the long-term benefit of the country, and indeed of the whole world, it was high time we placed more emphasis on the longer-range and more difficult problem of breeder reactors, which can make use of <u>nearly all</u> of our uranium and thorium reserves, instead of less than one per cent of the uranium and very little of the thorium utilized in the present types of reactors. Only by the use of breeders would we really solve the problem of adequate energy supplies for future generations.

However, it still is necessary for the government to undertake as an interim measure a strong program on the development of reactors other than breeder reactors which are some years away, and the water reactors which are presently the most developed type and on the threshold of widespread application. It appears from the projections made that efficient non-breeder reactors will be required in conjunction with breeder reactors to meet the rapidly growing national demands for electrical power. This government program over the next several years is also important since it provides the national means for "bridging the gap" between the infancy and maturity of nuclear power. This interim aid will allow the consolidation of the gains made to date and permit the national nuclear program to proceed in an efficient and sensible manner toward the development of more efficient and economical non-breeder reactors and eventually to breeder reactors.

Furthermore, a vigorous national nuclear power program can be pursued without cutting back the depressed coal industry - in fact, all our projections indicate that, even assuming an optimistic forecast of nuclear power development, the use of coal by the rapidly growing electric generating industry will increase severalfold over the next 50 years.

It should be recognized that as a result of early optimism in a short space of time, we have developed a competitive nuclear equipment industry, which at the present time is over capitalized and underemployed. This optimism has had some good results in terms of bringing many able technical men, manufacturers, and utility executives into the field, and assuring adequate Congressional and industrial support during the development years.

The optimism has also broughtabout some difficulties in that unless there are new starts on atomic power plants the atomic equipment industry will dwindle down to one or two large manufacturers who also build generators. Fortunately it now appears that relatively moderate additional governmental help will be necessary to insure the building of a substantial number of large power reactors (of the non-breeder type) economically competitive in the high fuel-cost areas of this country and the world, thus increasing public acceptance, keeping the nuclear industry healthy, and furnishing the plutonium necessary for a breeder reactor economy as soon as it can be adequately developed.

In summary, nuclear power promises to supply the vast amounts of energy that this nation will require for many generations to

cons and conceivably to provide a significant reduction in the national costs for electrical power that might otherwise be incurred over the next several decades.

Commissioners Emery and Palfrey have not had time to participate sufficiently in the review of this draft to permit their full endorsement of it.

Respectfully yours,

Glenn T. Seaborg

The President
The White House

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

At 7:10 I flew to New York on the first leg of my trip to the Sixth General Conference of the International Atomic Energy Agency in Vienna. I was accompanied by Dan Wilkes, Chris Henderson and Cecil King. We spent the night at the Forest Hills Inn.

(Attached is a letter to William Foster, ACDA, on arms control in outer space dated September 13, 1962, and signed by Acting Chairman Leland Haworth during my absence.)

Wednesday, September 12, 1962 - New York to London

I flew on Pan American flight no. 100 with Dan Wilkes (my assistant), Henderson (my special assistant), and Cecil King (my staff assistant), which left New York at 10 a.m. and arrived in London at 10 p.m. On the plane I worked on the New York State University speech (to be given October 26th), the IAEA speech (to be given September 20th), and the Georgetown University speech (October 13th). We were met in London by Algie Wells and George Mercer. We stayed at the Skyways Hotel near the airport.

Thursday, September 13, 1962 - London to Harwell

We rode to Harwell with Sir Roger Makins in his car. On the way we discussed: 1. The U.S.-U.K. plutonium-uranium-235 barter for military purposes and the U.S. request to use plutonium for civilian power purposes, 2. U.S. willingness to furnish 110 kgs. of uranium-233 to the U.K. and share the cost of fabrication, etc., 3. U.S. desire to participate in information from U.K.-Belgian Spectral Shift reactor project, and 4. furnishing of plutonium to Euratom for fast reactor program.

At Harwell we were greeted by Vick (Director of UKAEA) and Penney (Deputy Head of UKAEA). We toured the Metallurgy Division, with P. Murray as host, and part of the Chemistry Division, with F. J. Stubbs as host. I talked to H. A. C. MacKaye and Kenneth W. Bagnell about heavy element chemistry (higher neptunium and plutonium oxides and protactinium chemistry) and Gilbert N. Walton on fission research. We had lunch with a large group, including Wells, King, Henderson, Penney, Vick, Robert Spence (Deputy Director of Harwell), Egon Bretscher, and Thomas G. Pickavance (Director, Rutherford High Energy Laboratory). We toured the Neutron Project, with Bretscher, Ernest R. Rae (Physics Division) and Michael J. Poole (Applied Physics) as hosts, and the Rutherford High Energy Laboratory with Pickavance and Stratton as hosts. I rode back to the Westbury Hotel with Penney. We discussed the French program. We discussed fast reactors, the U.S.-U.K. plutonium-uranium-235 exchange arrangement, and the recent UKAEA organization changes. I attended a dinner for me given by Sir Roger Makins at the Brooks Club, with Penney, Sir Claude Pelly, Alan Howard Cottrell (part-time science member of the UKAEA), Dr. N. Levin (Director of Aldermaston), Hon. Viscount Hailsham (Minister for Science and Technology), Ronald H. Campbell, Sir Harold Caccia (now Permanent Under Secretary of State for Foreign Office), Jarret and U.S. Ambassador David K. Bruce.

When I returned to the Westbury Hotel I met Mr. and Mrs. Fred Wagner (Lafayette, California) in the lobby where they too were staying.

Friday, September 14, 1962 - London to Stockholm

I flew to Stockholm with my assistants Dan Wilkes, Chris Henderson, Cecil King, and Algie Wells (Director, USAEC Division of International Affairs). We were met by Ambassador James G. Parsons, Hubert W. A. de Besche, Gunnar Von Sydow (Under

OFFICE DIARY
GLENN T. SEABORG
Chr USAEC, 1961-72
FOLDER-PAGE 21058

September 11, 1962

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[redacted]

Dear Mr. President:

I am pleased to submit my bi-weekly report to you on significant developments in the atomic energy program. This will be my last report until my return from Europe. As mentioned previously, I expect to leave on September 11 to participate as Chairman of the United States Delegation to the Sixth General Conference of the International Atomic Energy Agency which convenes in Vienna on September 18. The Conference this year is not expected to be characterized by especially controversial issues as have arisen in some past years. The schedule for this trip is now generally firm and I will be returning to Washington on Wednesday, September 26.

1. Full Power Test of Nuclear Rocket Reactor

A full test of the KIWI-B-1B reactor was run on September 1 as part of the nuclear rocket propulsion program (ROVER). This was the first nuclear rocket reactor ever operated with liquid hydrogen, which is the most efficient rocket propellant.

On the basis of preliminary data it appears that the startup of a reactor with liquid hydrogen presents no insoluble problems and the data obtained in this test will clearly determine an appropriate startup approach. Flow and pressure oscillations occurred but seemed to be associated with the facility rather than the reactor. Further, it appears that the full power of 1000 megawatts was obtained, although a detailed calibration of the measuring instrumentation is required to assure us of this fact.

While the reactor was damaged during the test, this result was not unexpected since like damage occurred on the previous test employing a similar reactor design. Improved reactor designs have been developed to replace this reactor type.

CONFIRMED TO BE UNCLASSIFIED
AUTHORITY: DOE-DPC
BY R. [redacted], DATE: 6/3/86
O'Brien
L. Lefranck 6/17/86

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2. SNAP-50 Organization ~~(Official Use Only)~~

On September 7, Administrator Webb of the National Aeronautics and Space Administration, Secretary of the Air Force Zuckert, and I, reached agreement in substance on the formation of a joint office responsible for research and development leading to the construction of a high powered space reactor (300 - 1000 KWe) for both military and peaceful uses. This reactor will supply large blocks of auxiliary electric power for such space applications as electric propulsion and large communication satellites capable of relaying television signals directly to the home receiver.

As I reported to you on August 23, Congressional hearings have been scheduled on our SNAP, Rover and Pluto programs. The dates now set are September 13 and 14. While I expect that the question of the management of the high powered space reactors program will come in for considerable discussion, I believe the substantial agreement which has been reached on a joint AEC-NASA-Air Force office will give evidence of our awareness and intent to proceed promptly with the design and development of such reactors.

3. Termination of Strike at AEC Rocky Flats Plant (Unclassified)

The labor dispute between the Dow Chemical Company (Rocky Flats Plant) and the Denver Metal Trades Department (AFL-CIO) which began on August 11, was settled on September 4 and work at this plant has resumed.

4. N.S. SAVANNAH (Unclassified)

The N.S. SAVANNAH is currently scheduled to leave for Seattle on September 13 with 30 revenue passengers and several hundred tons of cargo. During its passage through the Panama Canal on September 18, the Governor of the Canal Zone has invited approximately 1 0 guests to board the ship for the transit. These guests include the President of the Republic of Panama and the American Ambassador and their respective staffs. No port visit will be made at the Canal at this time.

The ship will arrive at Seattle on October 1 and remain there until October 21, during which time at least three one-day demonstration runs will be made, with invitations issued by Senators Jackson and Magnuson and Representative Tollefson.

OFFICE DIARY
GLENN T. SEABORG
Chr USAEC, 1961-72
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As a closing note, and because of my impending departure today, I would like to alert you to the fact that the recommendations the Commission made on July 23, 1962, for the appointment to our General Advisory Committee, of Dr. Hansen Benedict, Dr. Eugene P. Wigner, and Dr. Lawrence R. Hafstad, are apparently still pending. The first two nominees were serving as members of the GAC until their terms expired on August 1. Because the GAC is a statutory committee established to furnish the Commission advice on scientific and technical matters, I anticipate some possible embarrassment to the Commission, and possibly to the Administration, if we are unable to resolve this matter. I do not believe there are any problems with these appointments and that only the press of other business has prevented the matter from coming to your attention.

I shall report to you on my attendance at the IAEA General Conference upon my return.

Respectfully yours,

(Signed) Glenn T. Seaborg

Glenn T. Seaborg

The President
The White House

UNCL. BY DOE
NOV 86

September 13, 1962

Dear Mr. Foster:

This is in response to your request for agency comments on your September 7 paper suggesting the desirability of raising with the Soviets the question of a joint statement against the placing in orbit of weapons of mass destruction. While it would be desirable to take outer space out of the arms race, there are aspects of the rather complex situation that should be carefully considered before we commit ourselves to any specific agreement.

The substance of the measure - the degree to which it applies to real possibilities for military action - should be a matter primarily for the Defense Department comment, but it does seem likely that in an era of rapidly advancing technology serious uses for orbiting nuclear weapons may be developed. An example might be the actual explosion in orbit, as part of a nuclear attack, of very high yield weapons, of the order, let us say, of 1000 megatons. The proposed measure could relate to really serious aspects of the arms race, and it cannot be considered entirely in a political or psychological context.

The capabilities for verification would set the degree in which the Soviets would in fact be constrained by agreement in this area. There are no proposed provisions for verification, except through an as yet undeveloped unilateral capability. Your paper proposes that consideration be given to the use of inspector satellites to determine whether vehicles in orbit are carrying nuclear weapons. To the best of our knowledge there is no prospective capability for making this determination; even in a pre-launch inspection, we would be hard put to detect the presence of nuclear weapon material without permission to dismantle the vehicle. Under these circumstances it is difficult to see how the proposed declaration would actually stop a developing use of space for military purposes, except by ourselves. We would simply not know what the Soviets are doing with whatever number of satellites they choose to keep in orbit.

Against the uncertain background of actual activities it is difficult to see how the psychological atmosphere would be clarified should the proposed measure actually be adopted. Demonstrations of capability would not be inhibited if they do not involve actual explosion of devices, and there is nothing to limit the number of satellites that are kept in orbit. The clear possibility that many more could be put in orbit on short notice would leave the Soviets an obvious capability to build up pressure in a future crisis without actually denouncing the agreement. At the same time the existence of agreement would give occasion for subtle pressures, from abroad and by groups in this country, against any program that we may attempt to keep going to counter an eventual threat by the Soviets. In the absence of verification methods we would not even be able effectively to make a defense against charges that we are violating the agreement ourselves.

Despite these reservations we do understand that the measure has become one of the traditional ones for discussion of outer space possibilities, and that it does form a part of our plan for over-all limitations on outer space activities. If the Soviets want to discuss the matter, we can hardly refuse to do so. Turning the emphasis to this measure may be a useful device if the Soviets press in negotiations for unacceptable measures. But at the same time we believe it inadvisable to initiate action that will cause the entire area to be given more emphasis than it would otherwise have. It seems likely that an initiative on our part would have the opposite effect to that desired; the Soviets could use the fact of our specific advocacy in this area to give added emphasis to their demand for other space limitations.

There is in addition to these general matters a particular concern in the relation of this measure to testing of weapons in outer space. If the early stage of a space flight for weapons testing were to involve an orbit, it would be evidently prohibited by the proposed agreement. Even if an orbit is not involved, the measure is likely to be interpreted as representing a strong discouragement against space testing. Again the prohibition would not inhibit the Soviets if they do such testing with serious but entirely practical precautions against detection. A serious point is that this limitation on testing, as a part of the larger agreement, would evidently become effective without formal referral of the agreement to the Senate.

Thank you for the opportunity to comment on the proposed measure; I hope that these remarks will be helpful to you.

Sincerely yours,

S/ Haworth

Acting Chairman

Honorable William C. Foster
Director
U.S. Arms Control and Disarmament Agency

Secretary, Commerce Department), Harry A. B. Brynielsson (Managing Director, Aktiebolaget Atomenergi), Albin Widen (Vasa Order), Folke Lindgren and Folke Hultman (Royal Swedish Academy of Engineering Sciences--Ingeniörs Vetenskaps Akademien, of which I am a member) and others. I was interviewed for the National Broadcasting Company of Sweden and by the press. After we checked into the Grand Hotel (Room 410) we visited the ship Vasa, which sank on its maiden voyage in 1628. It has recently been raised and is now on display in Stockholm Harbor near the place where it sank.

In the late afternoon, I gave a talk to Ingeniörs Vetenskaps Akademien entitled, "Science and Technology in the U.S. Atomic Energy Program," at Konserthuset (where the Nobel Prizes are given). Some 500 were in attendance and the speech was well received. I talked to Arne Tiselius, who told me that the Oxford team will probably get the Nobel Prize in chemistry for x-ray detection of molecular structure and Townes will get the Nobel Prize in physics for maser-laser work. I attended a reception from 6 p.m. in the Ingeniörs Vetenskaps Akademien rooms. I then attended a dinner at the Foreign Office Building, hosted by Rune Hermannsar (Minister without portfolio). About 20 people attended, including Ambassador Parsons, Brynielsson, Wilkes, King, Henderson and Wells. I gave a little thank-you talk.

Saturday, September 15, 1962 - Stockholm and environs

I visited Agesta (near Stockholm), with Brynielsson, Ambassador Parsons, Bo Aron Albert Aler, Per Gunnar Holte, Sten Gunnar Sandstrom and others. The reactor there produces 55 MW heat to furnish hot water for Agesta homes and also produces 10 MW of electricity. Then we went to Studsvik, the Swedish Aktiebolaget Atomenergi development laboratory, some 60 miles south of Stockholm. Here we toured the laboratory. During the tour I was filmed in a sequence for the film, Galaxy of the Elements, (which later received wide distribution).

Upon my return at 4 p.m. I had coffee with some relatives at the Grand Hotel--Uncle Karl Adolfsson (my mother's brother), Bengt and Britta Adolfsson, Per and Karin Möller and son Göran (Karin and Bengt are Karl's children, my first cousins), Mr. and Mrs. Eric Bäcklin and two daughters, Ulla-Britt (Osterberg) and Gun (Grill), and Ulla-Britt's husband Sven Österberg, Mr. and Mrs. Olaf Bloom (Mrs. Bloom is another Bäcklin daughter, Eivor), Gösta and Ingrid Berglund and daughter Britt (13) and Signe Lundgren.

I then went to a reception at the Embassy given by Ambassador and Mrs. Parsons. Those present included Senator Maurine B. Neuberger, the Thai Ambassador to the Scandinavian countries and his wife, and also my Uncle Karl Adolfsson, Bengt and Britta Adolfsson, and Per and Karin Möller. Then I went to dinner given by the Aktiebolaget Atomenergi group, Bo Gustaf Lindell (Chairman), Brynielsson, Ambassador Parsons, and many others (totaling 25-30), at Opera Källaren, Shipmaster's Club. I made a short speech in response to a welcoming address.

Sunday, September 16, 1962 - Stockholm and Skansen

I had lunch at the apartment of the Count and Countess Fleetwood (along with Wilkes, Wells, King, and Henderson), prior to the Sweden-America Day festivities arranged by the Vasa Order at Skansen.* I sat next to Prime Minister Tage Erlander, who discussed with me whether Sweden should manufacture atomic weapons (he thinks not, and I encouraged him to maintain that position), the role of tactical atomic weapons, and Swedish approach to civilian nuclear power (he has doubts about the natural uranium approach). I responded to a welcoming speech by Countess Fleetwood. Prime Minister Erlander also gave a short talk.

About 30 of my relatives were present, and we visited at Laxbrostugan, the home of my mother's father's family eight generations ago (transported from Kopparberg to Skansen as representing the typical Swedish home of the 1670 era in the Dalarna region). We then went to another old house where we all had coffee. Karl

*The Vasa Order is a fraternal society composed of Americans of Swedish descent (and their spouses) who still have connections with Sweden. My parents were members of Ishpeming and Los Angeles (Inglewood) chapters. Helen and I were members of a Washington, D.C., chapter. Skansen, where the ceremonies of this day were held, is a Stockholm park that has a section containing a collection of representative old Swedish houses.

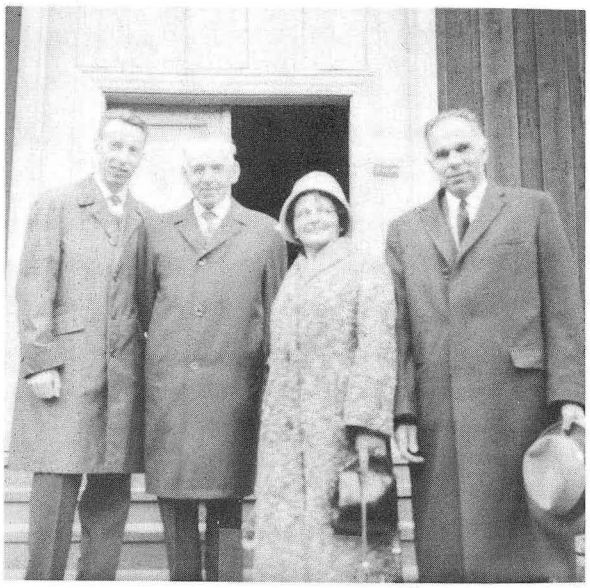
Seaborg with relatives
at Laxbrostugan, Skansen

September 16, 1962

Adolfsson, Bengt and Britta Adolfsson, Gösta and Irene Adolfsson and children Eva and Lena, Ruth Kjellgren, Eric and Tora Bäcklin, their daughter Eivor and her husband Olaf Bloom, and their children Anita, Per, and Berit, Gun (Bäcklin) Grill, Gösta and Ingrid Berglund and their daughter Siv (attractive and intelligent), Albert and Maria Ericksson, Mrs. Inga-Britt Ericksson, Mrs. Anna-Lisa Lundell, Allej Carlsson, and Gustav Ericksson were present. Many went later to the Vasa dinner where I received a Vasa booklet, which all signed. I responded to a welcome speech. This was followed by an evening of singing (by an entertainer) and dancing.

Monday, September 17, 1962 - Stockholm to Vienna

I flew to Vienna, changing in Dusseldorf, and arrived in Vienna at 1:50 p.m., along with USAEC staff personnel Algie Wells, Dan Wilkes, Cecil King and Chris Henderson. We were met by William Cargo (U.S. resident representative to the IAEA), and others. Henry Smyth (American Ambassador to the IAEA), Wells and I called on Sigvard Eklund (Director General of the IAEA). Then we visited the U.S. Mission headquarters where I have an office and my secretary Marie Janinek is working this week. I had dinner with Smyth, Isidor Rabi, Wells and Commissioner and Mrs. Robert E. Wilson at the Bristol Hotel, where I am staying. I took a long walk after dinner with Rabi and discussed many things, including his interest in staying on the Science Advisory Committee of the IAEA (which is a position Smyth would like).



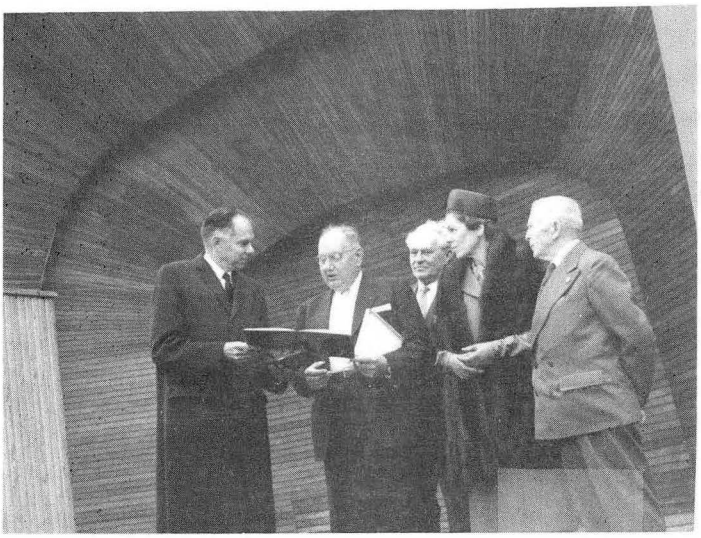
Gosta and Karl Adolffson
Ruth Kjellgren, Glenn

Glenn with Uncle Karl Adolfsson

SKANSEN, STOCKHOLM, SWEDEN, SEPTEMBER 16, 1962

Ruth Kjellgren (back), Karl, Irene
and Gösta Adolfsson, Glenn, Per Möller

Children (in front), Eva Adolfsson,
Göran Möller



Seaborg receiving scroll as Swedish-American of the Year at Skansen from Vasa Order officials, including Countess Marianne Bernadotte

Tuesday, September 18, 1962

I attended the opening session of the Sixth General Conference of the IAEA at the Hofburg, following a meeting of the entire U.S. group at the Mission headquarters at 14 Schmidtgasse.

Seaborg and Bertrand Goldschmidt (Sir Roger Makins, Chairman, U. K. Atomic Energy Authority, in center background) at 6th General Conference of the IAEA at the Hofburg Palace, Vienna, September 18, 1962.

Dr. Robert P. Baffour of Ghana was elected president of the Conference. I had lunch, as the guest of Director General Sigvard Eklund, at the Sacher Hotel, with Emelyanov, Goldschmidt, Makins, Smyth, Ralph Bunche, and two others from the Austrian Government. We discussed roadblocks to the 1964 Geneva Peaceful Uses Conference, to be held under U.N. auspices with IAEA involvement. Emelyanov said Russia was agreeable and probably would not raise the China question. This Geneva Conference question needs to be put on the agenda. I said I would contact our State Department. Emelyanov told me that Flerov has had difficulties producing element 104 from plutonium and neptunium, that they have no large program to make berkelium and californium, they are not working on such things as americium and curium metallurgy, and they have trouble getting support for such basic research since Kurchatov's death--their authorities ask what contributions such work makes to uranium-235 and plutonium production. He said he has had trouble getting Russian scientists to agree on the type of high energy accelerator, concedes they failed to keep their commitment to meet last November concerning an international accelerator, and thinks maybe they are ready to do something now. He asked if I would come to Russia if invited, and I said I would. He said that they are considering building nuclear power plants, but haven't yet decided, in a few places in the USSR where they are economically competitive. He mentioned an area between Leningrad and Murmansk (where they are considering a 600 MW and advanced type, but not so advanced as a breeder yet, heavy water moderated organic cooled, or organic moderated and gas cooled) or northern Siberia (where they are considering 10, 20, 30, 40 and 50 MW plants).

I gave a tea in my room for Vasily Emelyanov, Sir Roger Makins (U.K.), Bert Goldschmidt (France), Ambassador (to Austria) Blanche Meagher (Canada), Michael Michaels (U.K.), Commissioner James T. Ramey, Henderson, Cargo, and others, from 5 p.m. to 6:30 p.m. I called Commissioner Haworth in Washington to arrange for USAEC consideration in Vienna of New Production Reactor (NPR) determinations required by the bill, which finally passed in the House of Representatives last week. (The bill required the AEC to determine that certain utilization and financing conditions existed, prior to implementing a proposal for a power plant addition to the NPR, located at Hanford, Washington.)

I attended the reception at Schwarzenberg Palace given by Director General and Mrs. Eklund, and then had dinner at the Rathauskeller with Dan Wilkes, and later went to a show.

Wednesday, September 19, 1962 - Vienna

I went to the U.S. Mission headquarters, then to the IAEA meeting at the Hofburg where debate (i.e., delegates' statements) began. Makins spoke in the morning, offering a compromise on compulsory assessments. I had lunch with Commissioner Wilson. Emelyanov spoke at the afternoon session for 50 minutes--not as polemical as last year. He quoted USAEC testimony before the Joint Committee that safeguards are the most important function of the IAEA, that the United States originally opposed the Science Advisory Committee (which is apparently true). He argues for the Soviet disarmament plan and, most important, offered a plan for six Health Centers for isotope therapy, etc., six Research Centers for underdeveloped countries, and 300 fellowships with Socialist Republics to pay one-third of the bill (700,000 rubles) and 50 kilograms of uranium-235 (7 tons of uranium), worth 350,000 rubles.

U.S. Delegation to the Sixth General Conference of the IAEA, Hofburg Palace, Vienna, September 19, 1962. (Left to right, first row) Seaborg, Harry Smyth, Robert E. Wilson, (second row) William Cargo, I. I. Rabi and James T. Ramey.

IAEA Sixth General Conference
Western Hemisphere Reception, Auersperg Palais, Vienna, September 19, 1962

L to R: A. I. Alexandrov (USSR), Professor V. S. Emelyanov (USSR), unidentified, Ambassador B. M. Meagher (Canada), Seaborg

L to R: Dr. and Mrs. Sigvard Eklund, Seaborg, Dr. T. A. Marulanda (Colombia), Contreras Chavez (El Salvador), Mr. da Rocha (Brazil)

Western Hemisphere Reception, Auersperg Palais, Vienna, September 19, 1962

L to R: Mr. and Mrs. Valentin Kosyakov (USSR) and Seaborg

USSR Reception at Russian Embassy, Vienna, September 20, 1962

L to R: A. Salam (Pakistan), Mrs. Valentin Kosyakov (USSR), Mrs. Robert E. Wilson, Father Ted Hesburgh, Robert E. Wilson and Seaborg

I co-hosted a reception given by representatives of the Western Hemisphere at the Auersperg Palais from 7 p.m. to 9 p.m. It was very well attended. I was in the reception line. I saw Emelyanov and told him his speech was better than last year. He said he had worked six months to get the offer of Health Centers, etc., into it.

Thursday, September 20, 1962 - Vienna

I gave my talk (about 40 minutes) in the General Debate of the Plenary Session of IAEA (11:20 to 12 noon). I said the United States will support the USSR program of six Health Centers, etc., proposed by Emelyanov yesterday. I didn't answer his insinuations against the United States. My talk seemed to be well received. I hosted a luncheon on behalf of the United States for about 70 guests representing nearly every delegation.

Delegates of Hungary and Albania were invited for the first time and they accepted (copy of seating list attached). At the conclusion of the luncheon, I gave a very short speech and toasted the future of the various nations' atomic energy programs. I attended the afternoon Plenary Session. From 5 p.m. to 6 p.m. I participated in a Symposium on Atomic Energy (transcript attached) in the Hofburg, along with Makins, Francis Perrin, Emelyanov, I. H. Usmani, and George C. Laurence. I described U.S. nuclear rocket and SNAP (Systems for Nuclear Auxiliary Power) programs; I mentioned possible travel by man to the planets. Before this, during the afternoon, I talked to Emelyanov about our exchange program. We agreed that he would suggest to (and draft a letter for) Petrosyants suggesting an exchange of visits and possibly inviting me to Russia to work out the protocol.

I attended a reception at the Russian Embassy, where I met members of the Russian delegation--Heinz Barwich (Deputy Director of JINR at Dubna), and Professor Andrei K. Krasin of Minsk who hopes I'll visit Russia. I attended a dinner given by Siegfried Balke (of West Germany) at the Imperial Hotel for 19 guests. There Emelyanov told me he and Mrs. Emelyanov still have the flower in their apartment in Moscow that I gave her last year in Vienna. Before this, I was interviewed by a UN radio reporter on the program and value of the IAEA (for use by stations like those of CBS and Mutual in the United States).

My support of the Soviet assistance proposal and my Symposium statement on the possible use of nuclear rockets to transport men to Mars had wide press coverage, including AP in the United States.

Friday, September 21, 1962 - Vienna

The Commission (Ramey, Wilson and I) met in the Bristol Hotel at 9 a.m. to consider further the required determinations in connection with NPR conversion. From 9:40 a.m. to 10:15 a.m. I held a press conference in the hotel, covered by some 30 to 40 reporters. I clarified my statements of yesterday on nuclear power in space (Mars flight), our response to the Soviet assistance proposal, and my statement yesterday on plutonium buyback. I answered questions on nuclear energy in space, high altitude test effects on the radiation belt, safeguards for the Tarapur reactor, etc. I then spent about 45 minutes at the IAEA meeting at the Hofburg.

I flew to Brussels on Sabena flight no. 572 (leaving Vienna at 12:50 p.m. and arriving in Brussels at 2:30 p.m.) with Wilkes, Wells, Henderson and King. We were met by John Erlewine (our AEC representative) and Paternotte of Belgian Foreign Office and others. We were driven to Mol Laboratory where we visited the BR-1, BR-2, BR-3 reactors, the Transuranium Laboratory (where americium and curium work is going on), and the plutonium ceramic laboratory. I saw Greg Choppin and Al and Kay Florin. I had dinner with Louis de Heem (Scientific Director of Mol Center),

74 Guests Attended

TABLE PLAN - USA Luncheon
September 20, 1962
Bristol Hotel

Austria - Amb. Waldheim | U.K.- Makins | IAEA President Dr. Baffour (Ghana)

USSR - Prof. Emelyanov	1		
USA - Dr. Wilson	2		
Japan - Amb. Uchida	3	1	Germany - Prof. Balke
IAEA - Mr. John Hall	4	2	Brazil - Mr. Franco-Netto
Pakistan - Dr. Usmani	5	3	Australia - Mr. McKnight
Turkey - Amb. Karatay	6	4	France - Mr. Perrin
Belgium - Prof. Errera	7	5	Senegal - Mr. Diallo
Ceylon - Amb. Perera	8	6	Burma - Amb. Boonwaat
Viet-Nam - Prof. Buu Hoi	9	7	USA - Mr. Cargo
Holy See - Father Hesburgh	10	8	South Africa - Mr. Sole
Yugoslavia - Mr. NAKićenović	11	9	Korea - Amb. Shin
Iran - Dr. Azad	12	10	IANEC of OAS - Mr. Jesse Perkinson (USA)
Israel - Prof. Bergmann	13	11	Pakistan - Prof. Salam ([redacted])
Venezuela - Dr. Lujan	14	12	USA - Mr. O'Donnell
Hungary - Prof. Janossy	15	13	Colombia - Dr. Marulanda
Thailand - Air Marshal Vejyant-Rangrisht	16	14	Guatemala - Mr. Schwarz
Ukraine - Mr. Vinokurov (Uninvited)	17	15	Romania - Prof. Hulubei
USA - Mr. Henderson	18	16	Nicaragua - Dr. Gloger

USA - Dr. Seaborg	IAEA Sec./Gen. Dr. Eklund	U.N.- Dr.Bunche	USA Rep.to IAEA Dr. Smyth
X	X	X	X

		1	France - Mr. Couture ~~Argentina - Adm. Quihillalt~~
		2	USA - Mr. Ramey ~~USA - Mr. Rabi~~
Argentina - Adm. Quihillalt ~~France - Mr. Couture~~	1	3	U.K. - Mr. Michaels ~~Canada - Amb. Meagher~~
Philippines - Amb. de Castro	2	4	Iraq - Amb. Hasani
Canada - Amb. Meagher	3	5	USA - Dr. Rabi
Italy - Prof. Salvetti	4	6	Greece: Amb. Spanides ~~Italy - Prof. Salvetti~~
France - Dr. Goldschmidt	5	7	Canada - Dr. Laurence ~~Greece - Amb. Spanides~~
Indonesia - Dr. Darusman	6	8	USA - Mr. Wells
Holy See - Dr. Folsom	7	9	Lebanon - Amb. Ammoun
Albania - Mr. Nesho (DID NOT ATTEND)	8	10	India - Mr. Das Gupta
Finland - Prof. Laurila	9	11	Peru - Mr. de Zela
Poland - Mr. Billig	10	12	UAR - Amb, El Tohamy
Cambodia - Mr. Chhon	11	13	Afghanistan - Dr. Kakar
China - Dr. Lee	12	14	Tunisia - Dr. Torki
Morocco - Dr. Chorfi	13	15	Bulgaria - Prof. Nadjakov
USA - Mr. Thomas	14	16	Czechoslovakia: Dr. Petrze
New Zealand - Mr. Zohrab	15	17	Sudan - Mr. Widatalla
Ukraine - Prof. Zhmudsky	16	18	USA - Mr. Wilkes

Transcript of Statement made by Dr. Glenn T. Seaborg, at Panel Discussion, 20 September 1962

I was not sure just which aspect of the American nuclear energy programme I should emphasize, but it appeared to me that perhaps you would be interested in our programme of nuclear energy in space. There are two broad uses for nuclear energy in space that we are investigating in the United States and I will speak about these in turn.

The first is that of developing the nuclear rocket. This has many advantages compared to rockets which operate on chemicals and make it possible to perform missions that cannot be performed at all with chemical rockets. They make it possible, for example, to transport high payload missions to the moon and beyond the moon to the near planets. For example, they make it possible to contemplate manned missions to Mars and return. A nuclear rocket on such a mission could transport a spaceship with (a couple of) several men on it to Mars and, allowing about a month or so (to) for exploring Mars and returning, make the roundtrip in about a year. The nuclear rocket has the advantage over the chemical rocket because it has a greater specific (thrust) impulse, that is, a greater thrust per pound per second of propellant flow. In a chemical nuclear rocket that we are investigating something (of) on the order (that is) of twice that is possible - something like 900. The chemical rocket of course depends upon the hot combustion product gases flowing out of the rocket in order to give the thrust.

In the nuclear rocket we can choose the propellant that we want to heat, and the most efficient of all is that with the lowest molecular weight, which is hydrogen. (so that) The nuclear rocket engine consists of a compact

reactor which heats hydrogen transported as liquid hydrogen to very high temperatures to give maximum specific (thrust) impulse. This, of course, leads to very severe material problems indeed, because we have to have a reactor that will stand up to temperatures all the way from (zero) that of liquid hydrogen to the extremely high temperatures of the gaseous hydrogen flow that we are trying to use.

Tests of such a nuclear reactor have been carried out in Nevada at our reactor testing site and the work today indicates success. The first test flight is planned for 1967 in a space vehicle (of) having such a nuclear propelling device. (and the) Long-range man missions using such a device probably won't come until the 1970's.

The second (source) application of nuclear power in space is as auxiliary power in space vehicles. (to this programme we apply the name SNAP) We have been developing space power units as a part of our SNAP program (System for Nuclear Auxiliary Power). Here we have two types (:) of units. First there are devices that develop their power from radioactive isotope decay. (The conversion of the heat of radioactive decay to electricity - and here we are using such radioactive isotopes as the fission products strontium 90, caesium 137, cerium 144 and the interesting transuranium nuclides plutonium 238, which I mentioned in my talk earlier - has been applied in the transit satellites, one of which is circling the earth now and sending signals with navigational information back to the earth and the other transuranium isotope is curium 242 which is planned for possible use on a moon rocket.) Here we are using such radioactive isotopes as the fission products strontium 90, caesium 137, cerium 144 and plutonium 238. The conversion of the heat of radioactive decay of

electricity has been applied in the transit satellites, one of which is circling the earth now and sending signals with navigational information back to the earth. There is another transuranium isotope, curium 242 which is planned for possible use on a moon rocket.

These (types of) nuclear power sources (have their) involve heat conversion (through) from isotopic decay to electricity (to thermal electric) through thermoelectric devices. They develop electrical power in a range of watts - tens of watts, hundreds of watts and maybe into the range of kilowatts. But somewhere in that region we probably have a limit as to the amount of power that can be developed from these relatively simple devices due to the extremely high amounts of radioactivity that would be involved.

(These) Of course, such nuclear power sources have very useful applications on earth as well as in space.

We are also investigating in connection with most of these devices the more efficient (process of the) conversion of heat to electric power through the thermionic process.

The second type of SNAP device uses a compact nuclear reactor rather than a radioisotopic source. This makes accessible the energy range from kilowatts up to megawatts and we hope eventually into the multi-megawatt range. We have under investigation (here) a number of systems. One is a 500 watt system that uses thermoelectric conversion and (which) is scheduled for test flight in a year or two. Another system, which would develop 3 kilowatts of electrical power, is liquid metal cooled and uses turbogenerator conversion (of this type). Another system, similar to the 3 kilowatt system but (bigger) larger in power

and more complicated, develops 30 to 60 kilowatts. (and) Finally, we have under preliminary investigation (in) a testing reactor system for a SNAP device that will develop electrical power in the range of 100 to 1000 (mega-) kilowatts or more. This is an extremely difficult undertaking because it must be a reactor that will have a long life to suit the purposes that we have in mind and must have a low weight - something on the order of 20 to 30 pounds per kilowatt. This also is being developed on the liquid metal cooling principle.

These higher power devices will be useful for electric propulsion. This is a system of propulsion whereby the (atoms) ions to be used as a propellant are accelerated through the use of electro-magnetic fields out of the back of the rocket, giving (high specific force but low overall thrust) low thrust but high specific impulse, and making it possible to have perhaps the most efficient ultimate system of nuclear propulsion (of all).

These devices also make it possible to contemplate worldwide television, that is, the use of satellites (perhaps) in stationary orbits up some 23,000 miles above the earth. (for transmission of television directly to the home receivers, as contrasted, for example to Telstar television, there the signal is intercepted on earth by a very sensitive receiver and then re-broadcast to the home.)

Julien Goens (Director General of Centre d'Etudes de l'Energie Nucleaire-CEN-Belgium), Jean Vander Spek and others. We stayed at the Metropole Hotel.

Press Conference, Hotel Bristol, Vienna
L to R at table: Marvin Sorkin, USIS-Vienna, Seaborg, James T. Ramey

September 21, 1962

Saturday, September 22, 1962

I flew to Paris with Wilkes, Henderson, King and Wells. We stayed at the George V Hotel. At 11:10 a.m. I met with Thomas K. Finletter at NATO Headquarters, and then with Harold Agnew (who expressed concern that U.S. plans might mean putting undeveloped permissive links prematurely on aircraft delivered weapons). At 11:45 a.m., until 12:15 p.m., I met with Chairman Pierre Chatenet (who has succeeded Hirsch as President of the Euratom Commission), Jules Gueron, Frederico Consolo, and Lawrence Bost of Euratom at Euratom Headquarters. We discussed the possibility of the U.S. furnishing plutonium for fast reactor program. Then I had a talk with Gueron, as we walked along the Seine River, on various Euratom and other matters. From about 1 p.m. to 2:30 p.m. I had lunch alone with Chatenet at his home (3 Avenue d'Orsay). We discussed the relationship of the U.K. to Euratom, and the U.S. attitude and French attitude in this and other matters. I had tea at the George V Hotel at 6 p.m. with Harold and Beverly Agnew, along with Dan Wilkes. Wilkes, Henderson and I had dinner at the Lido.

Sunday, September 23, 1962 - Paris

I stayed in the hotel and worked on AEC papers and speeches for Whittier (to be given on October 10th), Los Angeles World Affairs Council (October 9th), Rice University (October 11th), State University of New York (October 26th) and Georgetown University (October 13th).

Monday, September 24, 1962 - Paris

I met with Perrin, Pierre Couture (CEA Administrator General), Goldschmidt, and Renou at CEA Headquarters (63 rue de Varenne). We discussed their request for plutonium for fast reactors and their requests for diffusion plant aid, submarine aid, weapons cooperation, etc., which they requested last year and which we again refused. I met with Minister Gaston Palewski (Minister of State for Scientific Research, Atomic and Space Affairs) at 2 Rue Royale--a get-acquainted call. His office overlooks the square where Marie Antionette was beheaded.

I flew to Orange in a MATS plane (leaving Paris at 12:15 p.m. and arrived Orange at 2:45 p.m.) with Wilkes, Henderson, King, Wells, Goldschmidt, Abe Friedman, Jacques Mabile, de Laage, Jacques Asty, Jacques Yvon, and Pierre Falquet. We flew over Pierrelatte on the way--this is the place where the French are building their gaseous diffusion plant. Construction of head-end stages were well underway in a large building reminiscent of our Oak Ridge plant. We visited Marcoule, where we saw one of three production reactors (operating at 220 MW) and the plutonium extraction plant. We were driven to Aix and checked into the Riviera Hotel. Our group, plus others, had dinner at Aix-en-Provence at the Roi Rene (King Rene) restaurant.

Tuesday, September 25, 1962 - Marseille to Madrid

I visited Cadarache with yesterday's group. We saw the land-based submarine pressurized water reactor setup, the plutonium laboratory, the Pegasse and Rhapsodie reactors. Our group flew to Madrid on a MATS plane (leaving at 12:30 p.m. from the Marignane Airport at Marseille--in the same DC-6 that we used yesterday--arriving at Madrid at 3:30 p.m.).

We were met by Jose M. Otero (President of the Spanish Nuclear Energy Board), U.S. Ambassador Robert F. Woodward and Mr. Culverwell of the U.S. Embassy and others. We visited the Moncloa Center, on the edge of Madrid, with Otero, Woodward and

Visit to Moncloa Center outside Madrid, Spain. Seaborg in Center, Jose Otero on his right, Ambassador Woodward on his left viewing a model of the Center. September 25, 1962.

others. We saw the U.S.-grant-assisted 3 MW swimming pool reactor; the uranium processing, physics, chemistry, and biology buildings; the isotope processing laboratory, etc. They produce about 30-40 tons of uranium trioxide per year at a cost ranging from $4.50 per pound to about $8, with an average of $7 per pound. They have about 150 tons on hand and 3,500 tons in sight in the ground. I attended a reception at the U.S. Embassy, then a dinner given by the Spanish Nuclear Energy Board at the Jockey Restaurant from 10 a.m. to 11:30 p.m.--attended by Otero, Woodward and Henderson. I spent the night at the Ritz Hotel.

Wednesday, September 26, 1962 - Madrid; back to Washington

I had an appointment with Minister of Industry Lopez Bravo, along with Otero, Woodward and Henderson. Lopez as well as Otero and many others I saw yesterday are interested in whether the United States will undertake toll enrichment of uranium. I was noncommittal, but indicated that it is quite possible; it will depend on the USAEC, the White House, and Congress. Whether the United States starts toll enrichment will decide whether the Spanish utilities choose boiling water reactors (some three at 300-400 MW each) in preference to natural uranium reactors.

I flew to New York along with Wilkes, Henderson, and King--making one stop at Lisbon. We flew to Washington on a MATS plane, arriving at 5:40 p.m. I worked on mail and AEC papers on the way.

Thursday, September 27, 1962 - D.C.

At 9:40 a.m. I presided over Commission Meeting 1874. The Commission approved Determinations under Section 112 of the Authorization Bill and requested certain editorial revisions in the letter to the JCAE; it approved (with revisions) a proposed letter to Congressman Jensen; and discussed possible questions and suggested answers for JCAE hearings on WPPSS Conversion of the NPR.

I sent a letter to Holifield (copy attached) which makes the required three determinations precedent to AEC signing a contract with WPPSS for conversion of the NPR to electric power generation. A compromise bill, passed during my absence, made these determinations necessary.

I also sent a letter (copy attached) to Congressman Jensen in reply to his letter to me demanding that the AEC take great care in making these determinations, implying that AEC is not justified in making them. My letter gives arguments in reply to his questions and says that the AEC is making the required determinations.

At 2 p.m., along with Luce of BPA and Hurd of WPPSS, I testified before the JCAE on the proposed AEC-WPPSS and the AEC-WPPSS-BPA arrangements. It seemed to go well.

Harvey White of the University of California stopped in to see me for a few minutes. (Attached are notes for Information Meetings 194 and 195 held during my absence.)

Friday, September 28, 1962 - D.C.

At 10 a.m. I presided over Information Meeting 196 (notes attached). We approved a letter (copy attached) to Budget Director Bell giving him our FY 1964 budget figures. These exceed Bell's target by $500 million; we will have to make some drastic reductions. We discussed the desirability of sending a letter to Rusk asking him to try to buy Christmas Island or, at least, get use of it under better terms. We approved a letter to the President asking for approval of 13 underground tests for the period October-December (STORAX II series).

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

901334 GT FILE

SEP 27 1962

OFFICE DIARY
GLENN T. SEABORG
Chr USAEC, 1961-72.
FOLDER-PAGE 21078

Dear Mr. Holifield:

I am submitting herewith: (a) the bases of the arrangements which the Atomic Energy Commission and the Bonneville Power Administration (BPA) respectively propose to consummate with the Washington Public Power Supply System (WPPSS) in connection with the construction and operation of electric generating and transmission facilities at the Hanford New Production Reactor (NPR); and (b) notification of Commission action on the determinations required by subsection 112(b) of the AEC Fiscal Year 1963 Authorization Act, with supporting data.

Attached are Program Justification Data describing the proposed arrangements between AEC, BPA and WPPSS. Phase I describes the proposed arrangements between AEC and WPPSS; Phase II describes the proposed arrangements between BPA and WPPSS.

Section 112(b) of the AEC Fiscal Year 1963 Authorization Act provides that the Commission shall make three determinations before entering into any arrangement or sale of the type described in Section 112(a). The Commission has made these determinations as follows:

(1) Usable byproduct energy will be produced incident to the production of special nuclear material in the reactor in accordance with the design of the reactor as originally authorized by Congress.

The design criteria of the New Production Reactor were prepared pursuant to the original authorization by the Congress - Public Law 85-590 for a convertible reactor, that is, one capable of being converted for the recovery of electric power. These design criteria specifically provided that the temperatures and pressures of the coolant in the NPR would be sufficiently high to permit the production of steam, in a secondary heat exchange system, suitable for use in turbine generators.

CONFIRMED TO BE UNCLASSIFIED
AUTHORITY: DOE-DPC
BY R. [redacted] DATE: 6/12/86
L Sofranko 6/12/86

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Chr USAEC, 1961-72
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The Commission's staff has continually reviewed the progress of the design and construction of the reactor to assure conformance with these design criteria. The Commission itself has held periodic reviews of the NPR and, as has been reported to the Joint Committee on a number of occasions, can assure that the reactor is being constructed in the manner contemplated by the Congress in the original authorization.

A number of independent evaluations have been made over the past several years of the feasibility of utilizing byproduct NPR energy for the recovery of electric power. In the course of these studies, design bases of turbine generators that could be installed to effect conversion were prepared by turbine manufacturers. These manufacturers have assured that the byproduct energy which would be produced by the NPR would be usable for the production of electric energy.

Accordingly, the Commission concludes that usable byproduct energy will be produced incident to the production of special nuclear material in the reactor.

Any special additions to the reactor which would be necessary to accommodate the addition of electric generating facilities would not be paid for by the Federal Government.

(2) The sale of byproduct energy could provide a substantial financial return to the United States Treasury for the benefit of the taxpayers.

The terms of the proposed contract between the Commission and WPPSS provide that during periods when the Commission is operating the reactor, the Commission will make available to WPPSS excess byproduct steam energy. The Commission will be compensated in accordance with the following schedule of payments:

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Millions of dollars

Year of dual-purpose operation	Annual payment	Cumulative payment
1	0.1	0.1
2	.1	.2
3	.2	.4
4	.2	.6
5	.6	1.2
6	.8	2.0
7	1.0	3.0
8	10.0	13.0
9	10.0	23.0
10	8.0	31.0
11	6.7	37.7
12	6.7	44.4
13	6.7	51.1
14	6.7	57.8
15	6.7	64.5
16	6.7	71.2
17	6.7	77.9
18	6.7	84.6
19	6.7	91.3
20	6.7	98.0
21	6.7	104.7
22	6.7	111.4
23	6.7	118.1
24	6.9	125.0
Each year after 24	5.0	---

By sale of such byproduct energy, the Federal Government will have an opportunity to receive a potentially substantial financial return for a byproduct which would otherwise be wasted. The taxpayers of the United States as a whole would be the ultimate beneficiaries of these payments.

(3) The national defense posture would be improved by the enhanced capability for resumption of special nuclear material production through non-Federal operation and maintenance of the reactor during periods when it is not being operated for special nuclear material production.

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This determination is based on: (a) the importance of plutonium as a national defense material, and (b) the virtual elimination of the considerable time that would be required to reactivate the reactor for plutonium production in the event that a period of suspension of such production were followed by a need for quick resumption of production for military purposes. Operation by WPPSS for power purposes would permit resumption of production operations in the reactor in a relatively short time, that is, in terms of days as contrasted with a period of perhaps two years that probably would be required to recruit and train a new operating staff and for testing, repairs and reactivation of the facility from a cold standby condition. The proposed contract between the Commission and WPPSS provides that the Commission may recapture the reactor at any time it determines that special nuclear material production should be resumed.

Section 112(e) of the AEC Fiscal Year 1963 Authorization Act provides that before the Commission enters into any arrangements for the sale of byproduct energy from the NPR, the Commission must determine that the purchaser of such energy offered 50 per cent participation to private organizations on a non-discriminatory basis in the sale of electric energy generated herewith. The Commission has had preliminary discussions with WPPSS looking toward fulfillment of this statutory responsibility. The Commission will inform the Joint Committee when this determination has been made.

I will be pleased to provide supplementary information which the Committee may wish on any aspect of the proposed arrangements discussed in this letter.

Sincerely yours,

(Signed) Glenn T. Seaborg

Chairman

Honorable Chet Holifield
Chairman, Joint Committee
on Atomic Energy
Congress of the United States

Attachments:
Phase I a/s
Phase II a/s

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Chr USAEC, 1961-72
FOLDER-PAGE 21082

SEP 27 1962

901335

Dear Mr. Jensen:

This is in reply to your letter of September 20 regarding the proposed arrangements between AEC and the Washington Public Power Supply System (WPPSS) in connection with conversion for electric power recovery of the Hanford New Production Reactor (NPR) and the actions which the Commission must take pursuant to Section 112 of the AEC's Fiscal Year 1963 Authorization Act before entering into these arrangements. In accordance with your request, I am attaching a copy of a letter which I have sent today to Chairman Holifield.

As reported to Mr. Holifield, the Commission has made the three determinations required by Section 112(b). Your letter set forth your opinion that the legislative history requires that these determinations be new determinations and based on a complete re-analysis of the matter. The Commission, prior to making the determinations set forth in our letter to Mr. Holifield, made a specific review of the bases for these determinations. The letter to Mr. Holifield contains supporting data following a statement of each of the determinations.

With respect to the determination which the Commission must make under Section 112(e) of the Act, preliminary discussions have been held among the staffs of the Commission, the Bonneville Power Administration (BPA) and WPPSS concerning the content of the proposed offer. No firm text of an offer has yet been developed. The Commission believes that any bona fide offer of private participation in the project must be directed to private utilities as well as to industrial organizations capable of accepting wholesale quantities of electric power.

Your letter raised several questions of a financial nature relative to Section 112(b) (2). As you noted, the payments to AEC would be

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BY R. [redacted], DATE: 6/3/86
S. Sefranek 6/12/86

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relatively small if the dual-purpose period of operation were foreshortened. AEC's analyses of this payment schedule were based upon comparisons of power costs and power values which showed that during the period of power-only operations the costs of producing power would likely exceed the power values. To compensate for this period, a number of years of minimal payments for steam would be necessary to reduce the risk to overall economic feasibility should the dual-purpose period be short. On the other hand, should the dual-purpose period extend, and thereby shorten the period of power-only operation, there would be opportunity for substantial payments to AEC for steam. Under no circumstances would installation and operation of generating equipment, in themselves, result in a financial loss to the AEC.

During the course of prior analyses of the economic feasibility of recovering power at the NPR, AEC assumed that the NPR would be required to produce weapons plutonium through 1972. An assumption concerning the duration of this period was required, since the Department of Defense cannot yet provide guidance on when the plutonium stockpile will be sufficient to meet national defense requirements. We are therefore not in a position to state conclusively that the military plutonium requirements would either cease before 1972 or extend beyond that date.

Under the terms of the proposed arrangements with the WPPSS, AEC would receive $3 million for the steam which would be made available through 1972. If the dual-purpose period is foreshortened, AEC would receive less than $3 million; if the dual-purpose period is extended beyond 1972, payments to AEC would be substantial. These payments would represent net revenues to AEC since all AEC costs, including indirect costs, which might be brought about by the WPPSS project would, under the terms of the proposed AEC-WPPSS contract, be paid for by WPPSS. Accordingly, the Commission is able to determine that "the sale of byproduct energy could provide a substantial return to the United States Treasury for the benefit of the taxpayers."

With this background information, there follow answers to other questions raised in your letter:

1. Q. Would total payments for NPR steam be a maximum of $100,000 if the plant was operated for dual-purpose for only one year?

   A. Yes.

2. Q. Does AEC consider that such a total payment meets the "substantial financial return" criteria? This question was raised in connection with the cost of the NPR convertibility features.

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A. The decision to proceed with the proposed arrangements with WPPSS is not related to the cost of convertibility. The payments to AEC over a dual-purpose period lasting only one year would, of course, not be substantial. However, the finding set forth in Section 112(b)(2) does not establish a criterion that there must be substantial financial returns no matter what the future circumstances, particularly with respect to long-term requirements for plutonium. As noted previously, the payments to AEC could be substantial, should the period of dual-purpose operation extend beyond 1972. While it is true that a foreshortened dual-purpose period would not recover convertibility costs necessitated by the design of the basic reactor, any payments would represent net returns to the Government and serve to offset a portion of those costs. An extended dual-purpose period would result in steam payments in excess of the cost of the NPR convertibility features. On the other hand, if the reactor is not converted for power recovery, there would be no opportunity for the Government to recover any portion of these costs. In addition, it should also be noted that it would cost between $1.5 and $2.0 million to put the reactor in standby and about $300,000 per year to maintain it in a standby status.

3. Q. Would the $1.2 million total payment for steam through 1970 meet the "substantial financial return" criteria? This question relates the year 1970 to dates previously given as the probable end of dual-purpose operation.

A. As noted above, the previous assumption of the duration of the period of dual-purpose operation was keyed to 1972, as contrasted to 1970 as set forth in your letter. In any event, payments through 1970 would be $1.2 million, as you noted, while those through 1972 would amount to $3 million. Relative to the cost of NPR convertibility, I would not consider either of these payments as being substantial; however, relative to the alternative of no power recovery at NPR and no payments at all, they would be substantial.

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4. Q. What are the Commission's opinions on whether there will be a requirement for dual-purpose operation of the NPR, and, if so, on the probable extent of the period of dual-purpose operations, based on the need for plutonium over and above that which can be produced at existing facilities?

A. On the basis of current trends in requirements and weapons technology, it is our opinion that there will be need to operate the NPR for plutonium production, in addition to our existing reactors. The question of the duration of the dual-purpose period was discussed above.

5. Q. What is the justification for the $10 annual NPR lease charge for power-only operation?

A. As noted previously, analysis have shown that during the period of power-only operation there would be no excess of power values over power costs. Accordingly, there would be no margin for greater reactor lease payments without a corresponding reduction in the payments for steam during periods of dual-purpose operation.

6. Q. If AEC's re-analysis indicates that the proposed contract between WPPSS and AEC will not assure substantial return to the Treasury, will AEC refuse to execute the proposed contract and propose substantial changes in it?

A. As noted previously, we believe that the statutory criterion provides that the AEC determine that the return to the Treasury could be substantial. AEC has made such a determination.

I hope that this letter has served to answer your questions regarding this project. If not, I will be pleased to discuss them further with you at your convenience. A copy of this letter is being sent to Mr. Holifield and to the Congressman who received a copy of your letter to me.

Sincerely yours,

(Signed Glenn T. Seaborg)

Chairman

OFFICE DIARY
GLENN T. SEABORG
Chr USAEC, 1961-72
FOLDER-PAGE 21086

Honorable Ben F. Jensen
United States House of Representatives

cc: Honorable Ivor D. Fenton
Honorable Chet Holifield
Honorable John R. Pillion
Honorable John Taber
Honorable James E. Van Zandt

bcc: Production
General Counsel
DMA

N F. JENSEN
SEVENTH IOWA DISTRICT

HOME ADDRESS:
EXIRA, IOWA

COMMITTEE:
APPROPRIATIONS

Congress of the United States
House of Representatives
Washington 25, D. C.

COUNTIES:
ADAIR, ADAMS, AUDUBON, CASS, FREMONT, GUTHRIE, HARRISON, MILLS, MONONA, MONTGOMERY, PAGE, POTTAWATTAMIE, SHELBY, TAYLOR

UNCL. BY DOE
NOV 2

September 20, 1962

BSB 9/26/62

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

Dear Dr. Seaborg:

The action of the House in approving the conference report on H. R. 11974--the AEC authorization act for FY-1963--places a responsibility on the Atomic Energy Commission to make certain determinations and reports before it enters into any contract for the sale of steam from the New Production Reactor at Hanford.

In my opinion the legislative history is such as to require that these determinations are to be new ones, based on a complete re-analysis of the entire matter. This is as it should be, as the record is quite clear that prior AEC determinations and statements on the economics of power generation at Hanford and on the payments to be made to the Federal Treasury for use of steam and/or lease of the NPR were based on highly questionable assumptions and methods of analysis.

In order that I may have up-to-date information on the Hanford matter, I hereby request that you furnish me with a copy of the data called for in Sec. 112(g) of the act in question, as soon as such data has been completed and concurrent with its presentation to the JCAE.

It is to be noted that the legislative history on the requirement set forth in Sec. 112(e) is somewhat conflicting. In certain instances in the hearings and on the Floor of the House reference is made to offering 50% participation to "private utilities"; in other instances and in Sec. 112(e) as written, the offer is to be made to "private organizations." I now ask whether in your interpretation of this section of the act you will rule that the requirement has been met, if WPPSS makes an offer of 50% participation to one or more private industrial organizations who then refuse such offer.

254A

The requirement in Sec. 112(b)(2) is that the Commission shall make a determination that "The sale of byproduct energy could provide a substantial financial return to the United States Treasury for the benefit of the taxpayers." The joker placed in this requirement by the Hanford proponents is the use of the word could instead of the word shall. As I interpret the proposed Hanford contract as now written, WPPSS total payments into the Federal Treasury for the use of byproduct steam from Hanford could be a maximum of $100,000 if the plant were operated dual-purpose for one year only and for power only the balance of the 30-year contract. Is this not so? Do you consider that such a total payment for byproduct energy meets the "substantial financial return" criteria, when interest costs would be over $2,000,000 annually on the convertibility features alone and nearly $8,000,000 annually on the NPR as a whole?

Is it not also true that even under dual-purpose operation until 1970 (which is one of the dates previously given in some of the hearings as the probable end of dual-purpose operation) and power only thereafter, the total payments for steam from Hanford would be only $1,200,000? Would this $1,200,000 potential maximum payment, in your opinion, meet the "substantial financial return" criteria?

My point is that the taxpayers of the nation through their representatives in Congress were sold a bill of goods by Hanford proponents that by making the NPR convertible, material savings would be made in the cost of producing plutonium as compared to the cost from a single-purpose production reactor. We now know, of course, that this is not the case, even in the unlikely event of continued dual-purpose operation over the entire 30-year contract period. Even then the present Hanford proposal would not return the capital and interest on the actual convertibility cost, let alone reduce the cost of plutonium. The taxpayers are entitled to receive a substantial financial return on their investment, and if the present proposal will not assure such a return this proposal should be abandoned.

It is to be noted that an AEC official during hearings on the matter admitted that during power-only periods " * * * there would be no substantial financial return to the Atomic Energy Commission * * *."

It is my understanding that the Department of Defense is not willing to certify that there is any need for additional plutonium over and above that presently on hand or capable of being produced from existing facilities. In view of this, what is your opinion as to whether there will be any requirement for dual-purpose operation of the NPR after its completion? In other words, what is the probable extent of dual-purpose operation of Hanford, based on the need for plutonium over and above that which can be produced at existing production facilities?

It is noted that during power-only periods of operation a nominal $10 annual charge is to be made for the lease of a Federal project costing nearly $200 million. If this Hanford power plant is as economically justified as AEC and other proponents would have us believe, why should there not be a more realistic annual charge for use of the NPR during power-only operation? What is your justification for this minimal charge?

It seems to me that the proposed contract between WPPSS and AEC as now written will not assure substantial financial return to the Federal Treasury. If your re-analysis of the matter substantiates this opinion, which it must do if the taxpayers' interest is given the proper consideration it deserves and all costs properly chargeable to Hanford power are included, will you then refuse to execute the presently proposed contract and propose substantial changes in the contract which will assure a proper return to the taxpayers?

Sincerely yours,

Wayne N. Aspinall

cc--Hon. John Taber
Hon. James E. Van Zandt
Hon. John R. Pillion
Hon. Ivor D. Fenton
Comptroller General

254C

UNCL. BY DOE
NOV 86

INFORMATION MEETING 194 September 20, 1962

9:40 a.m., Thursday, September 20, 1962 - Chairman's Office, D. C.

1. Visit of Czechoslovakian National to Oak Ridge

The Commission had no objection to the General Manager's recommendation. (Kratzer)

(Discussed with the Commissioners on September 19.)

2. Appointments to the General Advisory Committee

Dr. Haworth said he had discussed the matter with Dr. Weisner yesterday and early action is anticipated.

3. Allis-Chalmers' Contract for Byrd Reactor (PM-3B) (PL-3)

The Commissioners discussed briefly the meeting with Allis-Chalmers representatives yesterday and the Allis-Chalmers letter of September 18. Dr. Haworth noted that an additional letter is expected from Allis-Chalmers and the General Manager discussed the Executive Hearing on the matter scheduled for 2:00 p.m. today. Navy and AEC representatives will testify, and it was later reported by Mr. Ink that Allis-Chalmers representatives will not be present during the AEC testimony.

4. Commission Finding re the NPR Under Section 112(b) of the Authorization Bill

The Commissioners discussed the procedure for the Commission finding, the desirability of a cabled affirmation of the Vienna decision, and whether the determinations should be made prior to the signing of the bill by the President. Mr. Hennessey thought the timing of the determination would not affect the legality of the finding, but Dr. Haworth noted that it might be challenged. The Commissioners thought in view of the uncertainty of timing with respect to the Presidential signing ceremony, availability of a quorum of the Joint Committee for the hearing, etc., appropriate action will be taken as dictated by developments.

5. President's Science Advisory Committee - Consideration of AEC Reactor Report

Dr. Haworth said that in PSAC discussion of the report a spectrum of opinion was expressed, and that most of the members felt that they would have no trouble with a continuation of the program of this general magnitude.

6. Status of Agreement for Management of SNAP-50 Program

The General Manager reported that NASA has signed off on the draft and that it is under discussion with the Air Force.

7. Weapons Test Program

Dr. Haworth discussed briefly the extended program as approved by the White House.

✓8. Letter to the President re Underground Tests at NTS Storey II ltr Dispatched 9/28 S/RL

The General Manager noted a draft letter proposing the post- September 30 schedule will be ready for the Commissioners' review today.

9. Letter to Representative Celler re Allis-Chalmers Contract (Byrd Reactor)

Dr. Haworth noted a response will go forward subsequent to further discussion.

10. Mr. Pittman's September 14 memorandum re SPERT I DESTRUCTIVE TESTS

Noted.

✓11. Draft Letter to Ambassador Beale re Plowshare Experiments in Australia

Dr. Haworth suggested this matter be discussed when the Chairman returns. (Brown) Sent & attached on Oct. 25

12. September 19 Meeting of Principals

Dr. Haworth said agreement had been reached on the position paper re weapons in outer space. In response to Mr. Palfrey's query, Mr. Hennessey noted Mr. Kingsley's memorandum of September 11 to the Commissioners re space boundaries, jurisdiction, etc.

13. Dr. Chauncey Starr's September 12 Letter re Interest in a Sodium Graphite Reactor Prototype

Dr. Haworth noted receipt of the letter

14. Department of Defense September 11 Letter re Missile Warhead Requirement

Noted.

15. September 13 Letter from Thor-Westcliffe Development, Inc. re Gas Centrifuge Development

The General Manager discussed briefly the company's problems in the light of the Governmental decision on this matter, and said he would make recommendations to the Commission on the query raised by Thor-Westcliffe.

16. Secretary Gilpatric's September 18 Letter to the President re Permissive Link

Will be circulated in turn for the Commissioners' information. (Brown)

17. PERA Event Scheduled at NTS Today

See Dr. Haworth's September 12 letter to Mr. Bundy.

18. Findings on Transmittal of Information on Atomic Weapons

The General Manager reported that Secretary Gilpatric agrees with the Commission's position regarding findings on transmittal of information as related to dispersal of weapons. A joint DOD-AEC letter will be drafted for transmittal to the President. (Betts/Hennessey)

19. White House Decision re U-235 Production and Uranium Procurement Stretch-out

The General Manager noted the need for a response to the Commission's proposal and Dr. Haworth said he would call Carl Kaysen on the matter.

20. Letter to Chairman Holifield re UK Test at NTS

The General Manager noted the letter had been sent.

21. Joint Committee Query re Statement by Dr. Teller

The General Manager requested the Commissioners' review of the proposed reply to the query re Dr. Teller's statement at the National Advanced Technology Conference at Rice University.

PRESENT		DISTRIBUTION
Dr. Haworth	General Luedecke	Commissioners
Mr. Palfrey	Mr. Hennessey	General Manager
	Mr. Brown	General Counsel
	Mr. Ink*	Secretary

W. B. McCool
Secretary

*Partial attendance.

UNCL. BY DOE
NOV 86

September 25, 1962

INFORMATION MEETING 195

9:40 a.m., Tuesday, September 25, 1962 - Chairman's Office, D. C.

1. Fiscal Year 1964 Budget Estimates

Dr. Haworth commented briefly on the Commission's September 21 submission to the BoB and the Bureau's request for resubmission at a lower figure. Mr. Hollingsworth said revised estimates would be submitted to the Commission on Monday for consideration during the week of October 1. (Abbadessa/Secy.)

2. Dr. Haworth's September 22 Letter to Mr. Kaysen re STORAX II

This was only a draft - final dispatched 9/28 in S/RD.

Dr. Haworth noted transmittal of the draft letter with attached proposed schedule and the desirability of early Commission consideration.

3. Revised DOMINIC Schedule (see General Betts' Memorandum of September 21

Noted.

4. AEC/DOD Joint Letter to Mr. Bundy re Transmittal of Information

Dr. Haworth noted that he had signed the letter which is now awaiting Secretary Gilpatric's signature for transmittal to the White House. Mr. Brown said a related letter from Secretary Gilpatric dated September 22 has now been received.

5. Status of Study of Restricted Data Classification

Mr. Hollingsworth said the draft has been received by the General Manager for review looking to Commission consideration the week of October 8. (Secy)

6. Presidential Letter re U-235 Production and Uranium Procurement Stretch-out

Dr. Haworth reported that Mr. Kaysen had called to say that the letter has been signed and is in transit. Mr. Hollingsworth said that early discussions should be held with the Joint Committee, Appropriations Committee, and others and a letter for Dr. Haworth's use in discussions with Chairman Holifield is in preparation. Mr. Brown noted receipt of the September 17 letter from Congressman Aspinall and Mr. Hollingsworth suggested discussions with Mr. Aspinall following discussion with Mr. Holifield and others here. (Quinn)

7. Status of Study on Civilian Nuclear Power

Noted as still in review.

✓ 8. Draft Letter to Secretary Rusk re Christmas Island (see Dr. Haworth's Memorandum of September 21 and attached draft)

Not detached until 10/24 - attached on this date

Dr. Haworth said that in view of the laboratory directors strong support of an all airborne capability, he considered reexamination of this matter desirable, and suggested early discussion upon the Chairman's return. (Brown/Secy)

9. Draft Letter to Ambassador Beale re Plowshare Program

Dr. Haworth requested Commission consideration of this matter. (Well Kelly)

10. Status of Allis-Chalmers Contract for Byrd Reactor

Mr. Hollingsworth said the staff hoped to discuss with the Commission this week an alternate proposal which would involve (1) cancellation of the Allis-Chalmers contract, and (2) announcement of an alternative program for Antarctica reactors.

11. Mr. Price's Memorandum re VBWR Piping Crack (AEC-R 25/28)

Noted.

12. Commission Briefing on Exercise Spadefork

The Commissioners requested an early briefing. (Secy)

13. Senate/House Action on Postal Rate and Federal Pay Bills

Mr. Hollingsworth said affirmative Congressional action is expected on the bills and noted the effect on GS Super-grade salaries vis-a-vis statutory salaries.

14. Transfer of Director of Military Reactors Branch

Mr. Hollingsworth reported that the Department of the Army had requested the transfer of Colonel Grioble and the Commissioners suggested a reasonable delay to complete negotiation of the Allis-Chalmers contract matter.

15. Contract with Harvard for Operation of the Cambridge/MIT Accelerator

Mr. Hollingsworth reported briefly on the status of negotiation of the contract provisions on key personnel, charges for use, indemnity, etc. With respect to the provisions on alien control, he said the University is not inclined to accept the open end provisions, and that staff will have recommendations to the Commission shortly on the basic policy on this question.

16. West German Request for Release of Enriched Uranium for Argonaut-type Training Reactor Core

Dr. Haworth requested submission of a staff paper to include a [illegible] of a proposed position on U.S. safeguards. (Will)

17. Brookings Institution Study of Contract Policy

Mr. Ink noted that the Brookings group is now engaged in a study of contract policy and that the Commission will have an opportunity to review the draft.

18. Commission Determinations Under Section 112 of the Authorization Bill (NPR)

Dr. Haworth said the signing ceremony is scheduled for Wednesday noon, September 26, at the White House and that he had discussed with Mr. Schuldt, Bureau of the Budget, and Chairman Holifield cost and construction schedules. Mr. Hollingsworth said the draft letter to the Joint Committee and background supporting data, etc., will be available to the Commissioners Wednesday for discussion on Thursday morning.

Mr. Hennessey reported on the White House meeting this morning, at which the Presidential statement for use tomorrow was reviewed. In it the President instructs the Commission not to request a waiver of the 45-day legislative oversight period under Section 112(g). The Commissioners discussed briefly the implications of the introductory phrase relating to the position on the submission of project arrangements for legislative review and suggested that Messrs. Hennessey and Ink discuss the proposed language with Mr. Schuldt.

PRESENT		DISTRIBUTION
Dr. Haworth	Mr. Hollingsworth	Commissioners
Mr. Palfrey	Mr. Ink	General Manager
	Mr. Brown	General Counsel
	Mr. Ferguson	Secretary
	Mr. Hennessey*	

*Partial attendance

W. B. McCool
Secretary

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

UNCL. BY DX
NOV 86

COPY NO. 45

September 28, 1962

INFORMATION MEETING 196

9:50 a.m. Friday, September 28, 1962 - Chairman's Office D. C.

1. Letter to Secretary of State Concerning Christmas Island

The Commissioners discussed briefly the desirability of delaying transmittal of the letter in view of the opinions of the laboratory directors and the desirability of further discussions with White House staff. The Chairman said he wished to call Mr. Bundy or Mr. Kaysen prior to further action. (Henderson)

2. Letter to the President re Schedule for STORAX II

The Chairman will sign the letter for transmittal today. (Henderson)

3. AEC-Air Force-NASA Agreement for Management of SNAP-50 Program

The General Manager reported that final concurrence by other agencies is anticipated today and the Chairman requested distribution of the final draft, looking to early joint signature.

4. Presidential Letter re U-235 Production and Uranium Ore Stretch-out

The General Manager reported a letter to the President is in preparation, also a letter to Chairman Holifield for discussion with him and subsequently with Congressman Aspinall.

5. Recommendations on Modification of Restricted Data Category

The General Manager reported the staff paper will be submitted to the Commission at an early date.

6. Civilian Nuclear Power Study

Dr. Haworth noted that Mr. Schuldt, BoB, has suggested a meeting of interested agencies next week to discuss the draft report.

7. Letter to Ambassador Beale re Plowshare Program

The Chairman requested review for discussion at a later meeting.

8. Status of Negotiations on Contracts with Harvard and Princeton Universities

Mr. Hollingsworth reported that agreement has been reached with Harvard on all matters except provisions on control of aliens, and that staff recommendations on basic policy on this matter will be before the Commission at an early date.

9. September 12 Letter from Chauncey Starr re Second Round Arrangement on Sodium Graphite Reactor

Mr. Hollingsworth noted that the draft response indicating the proposal cannot be accommodated in FY 1964 is in transit for the Chairman's signature.

10. Report to the White House on Summary of Legislative Action during 87th Congress

The Chairman noted Mr. O'Brien's September 24 letter requesting submission of the report today. The General Manager said the letter report will be available for signature this afternoon.

11. Over-runs on the NPR

Mr. Hollingsworth reported that Edgar Kaiser had been in to discuss the problems and that Mr. Kaiser will review the matter with Mr. Cordiner. The Chairman suggested it would be helpful for the Commissioners to discuss the project with Messrs. Kaiser and Cordiner next week.

12. Letter to BoB re FY 1964 Budget Estimates

The Commissioners agreed the letter should go forward transmitting the previous estimates and referring to the Commission's reconsideration of some items. (Henderson)

13. Intelligence Report

14. Funding for STORAX II

The General Manager discussed briefly the funding problems.

15. Chairman's Report on European Trip

PRESENT		DISTRIBUTION
Dr. Seaborg	Gen. Luedecke	Commissioners
Dr. Haworth	Mr. Hollingsworth	General Manager
Mr. Palfrey	Mr. Hennessey	General Counsel
		Secretary

W. B. McCool
Secretary

UNCL. BY DOE
NOV 86

retyped in
airman's office. 9-28/62

September 28, 1962

Dear Mr. Ball:

In accordance with the provisions of the Budget and Accounting Act of 1950, as amended, there are transmitted herewith the budget estimates for the Atomic Energy Commission for the fiscal year 1964. These estimates would provide for new obligational authority of $3,376,000,000, consisting of $2,830,300,000 for operating expenses and $547,700,000 for capital plant and equipment. Expenditures are estimated at $3,145,000,000, made up of $2,640,000,000 for operating expenses and $505,000,000 for capital plant and equipment. The budget requests from our Divisions for 1964 have been under review within the Commission since early July with final Commission review taking place in early September prior to the departure of three Commissioners for the Sixth General Conference of the International Atomic Energy Agency. In our final review we recognized there were some items and amounts included in these estimates we would want to consider again. We hope to do this within the next ten days but in order to meet your schedule we are sending forward our previously approved estimates at this time.

In transmitting the estimates at this time, we have included under the capital appropriation the amounts required for equipment not related to construction, in accordance with the intent expressed by the House Committee on Appropriations in its report on Atomic Energy appropriations for fiscal year 1963 (House Report No. 2333). However, the Commission strongly believes there are a number of advantages in retaining these equipment amounts under the operating expense appropriation, and therefore requests your earnest consideration of permitting the equipment estimates to be continued in the operating appropriation. We further request, if you agree with the merits of our case, that your Office seek approval from the Committee on Appropriations to continue budgeting for equipment as has been done in the past. While there appear to be a number of advantages in providing equipment as part of the operating budget, the major advantage is in providing flexibility to our operating contractors and laboratory directors, and through such flexibility allowing maximum effectiveness in operations.

Basically, our laboratory directors and contractors, given the facilities in which to carry out AEC programs, have two resources at their disposal - technical manpower and equipment. In order to most effectively and economically conduct their operations, it is essential that they be permitted to employ the best "mix" of these two resources. This is particularly true in rapidly

developing and changing fields of science and technology when planning must be done long in advance. At the present time, with both operating expense and equipment under the same appropriation, the necessary interchangeability is provided. Under separate appropriations, this interchangeability is lost and the most effective and economical method of doing the work may not be possible. Factors contributing to the need for this flexibility are (1) the difficulty in estimating equipment needs two years in advance, particularly in our laboratories and our weapons production program, (2) the fine line in determining, for some equipment, between expense items and capital items, and (3) the situation in our laboratories whereby much of the equipment is actually built by laboratory personnel. We hope you will undertake to review this problem with the Appropriations Committee prior to the adjournment of Congress and that you will approve the transmittal of our 1964 estimates to Congress on the same basis as in 1963.

In connection with our estimates for fiscal year 1964, there are a number of items we particularly want to call to your attention. These are:

Raw Materials program. The estimates submitted are based on scheduled deliveries of domestic uranium concentrates under our present contracts. As you know, the Commission has under consideration a proposed stretch-out of domestic procurements beyond 1966, the terminal date under present contracts. Although we hope to announce this program in the near future, it is not possible at this time to reflect in our budget estimate what effect the stretch-out program will have on our appropriation requirements.

Weapons production. The amounts included in the budget for weapons production must be considered as tentative at this time, in that we cannot firm-up weapons pipeline costs until approved weapons production levels for fiscal year 1965 are received from the Department of Defense.

Weapons off-environment testing. The 1964 budget estimates include $[illegible] million in operating costs to retain an open area capability for testing off-environment. However, the estimates do not include funds for the conduct of an off-environment test series in fiscal year 1964 and if approval is given to such a

series, funds would have to be added to our budget request. Such a program would require about $127.0 million additional appropriation in fiscal year 1964 and a fiscal year 1963 supplemental appropriation of about $77.0 million.

Reactor development program. Under the civilian power program, the estimates include $8.5 million of research and development costs for a seed and blanket large scale nuclear power plant, on the assumption that the studies being undertaken under funds appropriated this fiscal year, and scheduled for completion by December, 1963, will warrant further research and development on this project.

Operating costs in the amount of $1.0 million for research and development and operation of the Organic Moderated Reactor Experiment, and $3.0 million for research and development associated with the Organic Liquid Heat and Industrial Reactor are included in the estimates. The need for these funds is contingent upon receipt of an acceptable proposal from the Packaging Corporation of America for a cooperative program under which the Commission would construct the reactor. Capital funds in the amount of $19.0 million for the construction of the reactor are included in the 1963 budget.

The estimates do not include funds for costs for Naval shipboard reactors. While the Commission would favor helping for these items, in view of the opinion you expressed during our 1964 preview discussions, that this should be a DOD funding responsibility, we have not included such funds in our estimates.

For the development of nuclear propulsion vehicles (project Pluto), the budget includes costs of $30.0 million. This amount would provide for the demonstration of feasibility in the Tory IIC test, scheduled to begin in the spring of 1963, and for a program of ground testing of the propulsion system reactors in the 1964-1967 time period. The estimates are based on our understanding of the development plan being prepared by DOD, but which has not yet been formally transmitted to the Commission.

In the Commission's program for the development of small, compact power systems for satellite and other uses (project SNAP), two items should be noted. First, the budget does not include funds for prototype development, although a modest research and

development level to provided, for the SNAP 4 reactor, a power plant in the 1 to 4 Mwe range. Although the Navy Department has expressed an interest in such a plant, we have not received a firm military requirement which would warrant development of a specific prototype. Second, the estimates do include operating costs in the amount of $10.3 million for development of the power conversion equipment associated with the SNAP 50 reactor. The Air Force and National Aeronautics and Space Administration have recently agreed that this development responsibility should be lodged in the Commission.

In connection with the recruitment of personnel for work at the Nevada Test Site under the Rover program, it appears that some housing and other community facilities will have to be provided near the site, if we are to recruit and retain the quality of personnel needed. The 1961 budget included funds for the conversion of the present road between Las Vegas and the test site to a four-lane highway. This will alleviate part of the problem, but it seems clear that other steps must also be taken. We have under way now a number of studies of what is needed in the way of housing and community facilities near the test site, and the methods by which these could be provided. These studies should be completed and evaluated by late October, and should they indicate the need for any financing by the Government it may be necessary for us to amend these estimates to include such amounts.

Physical research programs. The 1960 budget for the Commission, now being considered by the Congress, included $31.9 million to complete the funding of the Stanford Linear Accelerator. The House, in its action provided only $15.4 million for 1961, but we have requested the Senate Appropriations Committee to restore the balance. In the event, however, that restoration is not made, $16,500,000 will need to be provided for this construction in 1960 and therefore is added to these estimates.

Energy allocation and administration. The capital plant and equipment estimates include $1.1 million for an additional wing to the Commission's headquarters building at Germantown, Maryland. Although it is still our desire to be housed in a single building in the downtown area, our headquarters space situation has become critical, and with the additional personnel still needed and the lack of any indication that Washington space will be available in the near future, this appears to be the only solution to our space needs. The additional wing will accommodate our projected staff needs, including the engineering staff which will be housed in the temporary GSA rented space in Bethesda, Maryland.

Construction planning and design funds. In order that we may avoid some of the current problems which have troubled the Commission in the past in connection with highly technical and complex construction projects, we are including funds in the capital budget to permit detailed planning and engineering design work, beyond the conceptual design stage, for projects to be funded after the budget year. This work will enable us to propose in our budget, well supported cost estimates for such projects at the time the Commission requests their authorization. For this purpose, there is included in the 1964 estimates, $8.0 million, of which $3.0 million is specifically designated for the design of project Sover test facilities and $5.0 million for projects as yet undesignated.

The detailed justification material in support of our appropriation estimates for fiscal year 1964 are being transmitted separately to your staff.

Sincerely yours,

Chairman

Honorable David E. Bell
Director, Bureau of the Budget

Enclosure:
As stated

Distribution: 1A, 2A - Addressee
3A, 4A - Chairman
5A - Gen. Mgr.
6A, 7A - Secretariat
9A - Controller
10A - Gen.Counsel
11A - Staff
12A - Yellow file
13A - Green
8A - McCarthy

Asst.Gen.Mgr. for Budget | Controller | GOC | AGM | DGM | GM

FMcCARTHY:dj
9/13/62

At 11 a.m. I presided over Commission Meeting 1875. The Commission approved the Antarctic Reactors program as revised. The Commission requested paragraphs 76 and 10a be revised to note that if the proposed Allis-Chalmers analysis and redesign program results in an acceptable design, new authorization and appropriations would be necessary. The Commission requested Appendix "A" be revised to indicate a definition of a reasonable limit of Phase I work. The Commission requested preparation of an appropriate reply to Mr. Etherington's September 18th letter to the Chairman.

Regarding the Military Compact Reactor contract, the Commissioners agreed that for contract purposes United Nuclear Corporation is considered as subcontractor for the project.

From 12:30 to 2 p.m. I attended a meeting of the Space Council in the Executive Office Building (room 274). Among those present were: Vice President Johnson, Bob McNamara, Jim Webb, Alexis Johnson, Donald Wilson (USIA). We discussed the public relations aspects of the U.S. space program.

Palfrey, Haworth and I discussed the presentation of the single administrator proposal, which is due at the Bureau of the Budget on October 1st. Palfrey will prepare a number of suggestions, ranging from the single administrator through a three-man commission to a modification of the present setup.

I sent a letter to Larry O'Brien summarizing legislative accomplishments of interest and importance to the AEC and the country during the last two sessions of Congress.

Saturday, September 29, 1962 - D.C.

I spent the morning at the office answering correspondence and working on various AEC papers.

I wrote to my mother telling her I will be in Los Angeles on October 8th through the 10th.

I had lunch at the Cosmos Club with Alan Waterman who felt me out, on a personal basis, as to the possibility of my accepting the directorship of the National Science Foundation. Father Hesburgh did the same thing in a private conversation in Vienna the week before last.

Sunday, September 30, 1962

I worked at home on AEC papers.

Helen, Dianne, Dave, Steve, Lynne and I visited the Smithsonian Institution.

The Giants and Dodgers tied today for the National League pennant.

GT FILE

UNCL. BY DOE NOV 96

SEP 28 1962

Dear Mr. O'Brien:

The attached summary of legislative action by the 87th Congress affecting AEC programs and activities is provided in response to your request of Monday last.

As you will note, legislative acts significantly affecting our programs are primarily Authorization and Appropriation Acts. For 1963, authorizing legislation has now been passed by the Congress, but final action has not been taken on appropriations. The amounts shown therefore for 1963 are based on the estimates submitted in the President's budget. The principal effect of Congressional change may be in the totals appropriated for the Physical Research Program where a present House reduction of $10 million has not been resolved.

Please let me know if we can further assist you.

Sincerely yours,

(Signed) Glenn T. Seaborg

Chairman

Mr. Lawrence F. O'Brien
Special Assistant
to the President
The White House

Attachment:
Summary

cc: GI
Chrm. (2)
Mercer

DOX 1
DE 9/25/62
Code 1
22040

THE WHITE HOUSE
WASHINGTON

September 24, 1962

UNCL. BY DOE
1988

Dear Dr. Seaborg:

This office would appreciate by this Friday noon, a summary of legislative action taken in the 87th Congress affecting your Department or subdivisions thereof. This should include progress reports on new programs, new starts and new procedures which may have been initiated during these two years as a result of legislation enacted by this Congress.

The report should be concise as we may determine to give it reasonably widespread circulation. Terminology peculiar to your Department but not in general use should be avoided.

Sincerely yours,

Lawrence F. O'Brien

Lawrence F. O'Brien
Special Assistant
to the President

Honorable [illegible] Seaborg
Chairman
Atomic Energy Commission
Washington, D.C.

Monday, October 1, 1962 - Germantown

At 10 a.m. I presided over Information Meeting 197 (notes attached).

At 12:35 p.m. I called Carl Kaysen and told him the agreement on Christmas Island runs out about the middle of February and we're not quite sure where the matter stands. I suggested he look at our memorandum (copy attached) to Bundy of July 29th, in which we suggest the possibility of trying to buy Christmas Island and, if that is not possible, then try to get a better agreement. I said we have a letter ready to go to Rusk on this matter. Kaysen said he will check into this and call me. He said the President has approved the STORAX II underground series and we should have the letter today or tomorrow.

I had lunch with Art Tackman (Director, Division of Personnel) to discuss various problems.

Evans, head of Bendix Corporation in Kansas City, briefed us on their operations. We were also briefed by the staff on SPADEFORK--a nuclear attack on the U.S. exercise.

Tuesday, October 2, 1962 - D.C.

At 10 a.m. Commissioner Haworth and I met with Congressman Holifield to discuss: 1. the uranium ore stretchout plan, 2. the Euratom request for plutonium for fast reactors, and 3. the Spanish request for U.S. toll enriching. Holifield was adamant in his (and, he said, Jackson's, Anderson's and Price's) opposition to the sale of a Skipjack Submarine to France because of the possible compromise of information.

At 11:45 a.m. I met with Lyman Fink, Wilfred E. Johnson and W. G. Lalor of General Electric. Fink mentioned that he has heard that during my visit to Vienna, I invited Joachim Pretsch of Germany to visit Argonne early in November. I confirmed this but said it was in response to a request from Pretsch. Fink said that Pretsch now has been in touch with him and said he doesn't want to visit Argonne to discuss fast breeder reactors unless G.E. is also represented. I said this was not part of the arrangement with Pretsch. I told him I see no particular reason why he couldn't see the G.E. people and ANL people separately. I told Fink however, that if Pretsch wants the G.E. people to be at Argonne at the same time he is visiting, I have no objection to it and that Fink might take this up with Pittman.

Several more items were brought up for discussion. The next was toll enrichment. I told them about my conversations with Jose Otero in Spain regarding this and said we have an open mind on it. Fink again warned me about the labor situation at Hanford and the impending difficulties when the contract is renewed next spring. Fink and Johnson indicated that the Ching Panel operations are so detrimental to them (G.E.) that labor makes only a token attempt at settlement, knowing that, if it goes to the Ching Panel, they will get much more than a company like G.E. would give them. Fink said he wanted to know where I stood on this so that G.E. would have this information. I told Fink and Johnson that the Ching Panel has to be in the picture, and they might as well assume it will be and operate on that basis. The Panel will be in the picture if settlement between labor and G.E. is not successful. I also warned them that we would take a dim view of their operating the plant with supervisors.

I received a very irate phone call from Congressman Samuel Stratton (N.Y.) protesting the AEC termination of their contract with Allis-Chalmers (in his district) for the Antarctic reactor at Byrd station. He also sent me a telegram (copy attached) which he released to the newspapers.

w H

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

UNCL. BY DOE
NOV 86

JUL 29 1962

Dear Mac:

Attached are two memoranda requested in the meeting with the President on July 27, 1962. They are:

1. An AEC prepared "Memorandum on Maintaining Readiness to Test During a Test Ban". It has been concurred in by Dr. Gerald W. Johnson, Assistant to the Secretary of Defense (Atomic Energy).

2. "Memorandum on Relative Technical and Military Advantages of Testing or Non-Testing Under Various Testing Constraints" signed by Dr. Johnson and myself. not attached

Sincerely yours,

Leland J. Haworth
Commissioner

Honorable McGeorge Bundy
Special Assistant to the President
on National Security Affairs
The White House

UNCL. BY DOE
NOV 86

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

COPY NO. 45

October 1, 1962

INFORMATION MEETING 197

10:00 a.m., Monday, October 1, 1962 - Chairman's Office, Room A-457

1. Food and Drug Administration's Proposed Regulation re Radioactive Drugs -

Mr. Palfrey commented briefly on a telephone call from Congressman Melvin Price in which Mr. Price discussed the possible effect of the regulation on the Abbott Laboratory, among others. The Director of Regulation and the General Manager will review the matter to determine what action, if any, is necessary and consider the desirability of preparation of a letter to Congressman Price. (G.M.-D.R.)

2. Briefing on PAL (See General Betts' Memorandum of September 26, 1962) -

Scheduled for 4:30 p.m., Tuesday, October 2, Room 1113-B, D.C. Office. (Betts-Sec'y)

3. Letters and Press Release on the Allis-Chalmers Contract for the Byrd Reactor -

The Commissioners approved the revised letters and the revised press release for early transmittal today.

4. Letter to Chairman Holifield re Cooperation with the Australian Atomic Energy Commission on the High Temperature Gas-Cooled Reactor Information -

The Commissioners agreed a letter should be sent.

5. Letter to Dr. Bhabha re Exchange of Information on the Organic Heavy-Water Moderated Reactors -

The Commissioners agreed the letter should be sent.

6. Proposed Letter to Mr. Sapirie re Dr. Calkins Research at Oak Ridge on Evidence for Induced Gravitational Changes from Experiments Based Upon an Energy Emission Theory -

The Commissioners agreed the proposed letter terminating the project should be sent.

7. AEC 1120 - Legislative Program for 1963 and AEC 1120/1 - Private Ownership and AEC Sale of Special Nuclear Material within the United States -

The General Manager noted the desirability of early consideration of these two papers which will be issued to the Commissioners by Tuesday, October 2.

8. Plutonium for Use in Rapsodie -

The Commissioners discussed briefly the problems raised by the French request.

9. Storax II - NTS Event Saturday, September 29 -

The General Manager reported that an analysis of the sample recovery results would hopefully be available by Thursday morning.

10. DOMINIC Event Scheduled for Today -

The General Manager reported this event is now rescheduled for October 2.

11. NTS Schedule After January 1 -

In response to Dr. Haworth's query, the General Manager said the problems are under current discussion. He added that Admiral Mustin and other JTF-8 personnel had on Saturday discussed the need for roll-up guidance on DOMINIC and on planning for Christmas Island.

12. French Request for Cooperation on Tests -

The Chairman noted briefly that the French had mentioned to him during his trip their interest in undertaking a program of cooperation.

Present		Distribution
Dr. Seaborg	Gen. Luedecke	Commissioners
Dr. Haworth	Mr. Brown	General Manager
Mr. Palfrey	Mr. Hennessey	General Counsel
	Mr. McCool	Secretary

W. B. McCool
Secretary

UNCL. BY DOE
NOV 86

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DR GLENN T SEABORG, CHAIRMAN

US ATOMIC ENERGY COMMISSION WASHDC

GRAVELY DISTURBED BY ANNOUNCEMENT TODAY THAT ATOMIC ENERGY COMMISSION IS CANCELLING ALCO CONTRACT FOR CONSTRUCTION OF PORTABLE NUCLEAR POWER PLANT FOR ANTARTIC. EARLIER VISITS AND NUMEROUS CALLS TO YOUR OFFICE HAVE INDICATED MY DEEP INTEREST IN THIS MATTER PARTICULARLY AS IT AFFECTS EMPLOYMENT IN SCHENECTADY AREA, ONE OF NATION'S ECONOMICALLY DISTRESSED AREAS. YOUR DECISION, MADE WITHOUT PRIOR CONSULTATION WITH ME, WILL MEAN LOSS HUNDREDS OF JOBS IN SCHENECTADY AREA. IN VIEW NEW YORK STATE'S CONTINUING DIFFICULTIES IN GETTING DEFENSE CONTRACTS INTO OUR AREA, BELIEVE ABSOLUTELY VITAL YOU RECONSIDER YOUR DECISION AND REINSTITUTE CONTRACT FOR SCHENECTADY ALCO

SAMUEL S STRATTON MC.

At 3 p.m. I presided over Commission Meeting 1876. The Commissioners approved items as follows: 1. public announcement of Ripple II Event, and 2. press release regarding contract termination with Allis-Chalmers. The Commissioners discussed the FY 1964 budget estimates. The Chairman requested Commissioners Haworth's and Ramey's recommendations for reductions in the Reactor Development Program and Commissioner Haworth to consider alternate recommendations for Isotopes Development Program. The Chairman requested that the last sentence in item 4, Rocket Propulsion Reactors (ROVER), in AEC 1095/10 be strengthened. Commissioner Haworth requested that future budget staff papers contain previous fiscal year figures in detail analysis for operating expenses, plant obligations, and obligations for equipment. The Commission requested further discussion of the distribution of programmatic funds within the Physical Research Program.

An unsuccessful airdrop atmospheric test took place at Johnston Island today. This was RIPPLE II, the first of the follow-on DOMINIC series for which we had great hopes, but it was not successful.

Wednesday, October 3, 1962 - Germantown

At 9:30 a.m. I addressed Division Directors and Office Heads on the importance of the UGF Campaign.

At 10:30 a.m. I presided over Information Meeting 198 (notes attached). We discussed the reduced FY 1964 budget in Commission Meetings 1877 and 1878 held in the morning and afternoon, respectively (action summaries attached).

I had lunch in the cafeteria with Steve Lawroski, Howard Brown and Chris Henderson.

At 2:15 p.m. we saw a demonstration of the centrifuge separator by representatives of Union Carbide.

I sent a letter (copy attached) to Congressman Stratton answering his diatribes of yesterday.

The San Francisco Giants beat the Los Angeles Dodgers (4-2) in the third game of the National League Championship playoff. (Our family watched this on TV at dinner time.) On Monday the Giants won 8-2, and yesterday they lost 7-8.

I sent a response to the GAC report of their 80th meeting.

Thursday, October 4, 1962 - D.C.

At 9:30 a.m. I addressed the managers of the Field Operations Offices who are in town for a meeting.

At 11 a.m. Commissioners Haworth, Ramey, Palfrey and I met with the GAC. We discussed the weapons testing program, the civilian power report to the President, etc.

I had lunch at the Roger Smith Hotel with Haworth, Al Crewe (Director, ANL), Maurice Goldhaber (Director, BNL), Alvin Weinberg (Director, ORNL) and John Swartout (Deputy Director, ORNL), who are in town for the GAC meeting.

I called Congressman Stratton and in his absence asked his secretary to tell him that I would be seeing Harold Etherington of Allis-Chalmers this afternoon. I asked her to tell him that I will be going to Albany to make a speech to the Regents of the State University on October 26th and that I am thinking of going to Schenectady at that time to have a firsthand look at the situation. I said that I

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NOV 86

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

COPY NO. 15

October 3, 1962

INFORMATION MEETING 198

10:35 a.m., Wednesday, October 3, 1962 - Chairman's Office, Room A-457

1. Use of Christmas Island -

The Chairman said he had discussed this matter with Mr. Carl Kaysen who will review the status for early discussion with the Commission.

2. The Chairman's and Commissioner Haworth's Meeting with Chairman Holifield October 2 -

The Chairman reported that in the meeting with Mr. Holifield yesterday the following matters were discussed:

a. Uranium Ore Procurement Stretch-out.--Mr. Holifield indicated general agreement and the Chairman later called Congressman Aspinall to inform him and to suggest that Mr. Aspinall discuss it further with Mr. Raff Faulkner. The Commissioners thought it might be desirable to inform other Committee members.

b. Spanish Request for a Toll Enrichment.--Mr. Holifield saw possibilities here but hoped there would be no loss of money in any arrangement that might develop. (The Chairman requested an early discussion of the Spanish request.) (Wells)

c. EURATOM Request for Plutonium for Fast Breeder Program.--Mr. Holifield expressed general agreement provided, again, no loss of money would be involved.

3. Cooperation with the French re Under-ground Test Detection -

The Chairman said in his discussions with the French he had undertaken to review this matter. (Betts)

4. Chairman's Discussions with Mr. Pretsch re Argonne Visit -

The Chairman mentioned Mr. Pretsch's comment to him in Vienna that he wished to visit Argonne to discuss the fast breeder reactor program and that his response had been that the request should be taken up through regular channels. In a later meeting with Mr. Fink of GE in Washington, Mr. Fink also mentioned the possibility of the visit by Mr. Pretsch.

5. GE Contract for Operation of Hanford -

The Chairman said in his meeting of October 2 with Mr. Fink of GE, Mr. Fink stated that renewal of the contract would undoubtedly be a difficult negotiation and expressed concern at the possible involvement of the Ching Panel. The Chairman said he had made it clear that the Panel would be used if negotiations reached a stage requiring such action.

6. Commissioners' Meeting with GE-Kaiser-Burns and Roe Officials October 8 re NPR -

The meeting is scheduled for 2:00 p.m., Room 1113-B, D.C. Office.

7. Ripple II Event -

The Chairman requested an early status report. (Betts)

8. AEC-Air Force-NASA Agreement on Management of Advanced SNAP Systems Program -

The General Manager said he hoped the agreement could be effective shortly.

9. Washington Meeting of the Field Managers October 4 and 5 -

The Chairman noted he would speak briefly to the Field Managers on Thursday, October 4 at 9:30 a.m, Room 1113-B, D.C. Office and invited the Commissioners to join him at the meeting.

10. Commissioners' Meeting with the General Advisory Committee October 4, 5 and 6 -

11. Consideration of Business Deriving from Commissioners' European Visits -

Mr. Ramey suggested a discussion of the Commission's policy on the IAEA upon Dr. Wilson's return, and the Chairman agreed that it would be desirable to have a general discussion of all matters of business covered by the respective Commissioners in their European visits. (Wells)

12. Press Request for Comments on Dr. Teller's Speech at the Conference of United Press International Editors and Publishers October 2 -

The General Manager said he would review the matter.

13. Appointment of Deputy Controller -

The Commissioners had no objection to the General Manager's recommendation.

14. Consultant Contract for Dr. Charpie -

The Commissioners agreed Mr. Hennessey should discuss the matter with Dr. Charpie during Dr. Charpie's attendance at the GAC meeting on October 4, 5, and 6.

15. Allis Chalmers' Contract for the Byrd Reactor -

The Chairman said he would meet separately with Congressman Stratton and Mr. Etherington.

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

W. B. McCool
Secretary

D. C. Files

OPTIONAL FORM NO. 10
5010-104
UNITED STATES GOVERNMENT

Memorandum

UNCL. BY DOE
NOV 86

TO : A. R. Luedecke, General Manager

DATE: October 3, 1962

Approved A. R. Luedecke

FROM : W. B. McCool, Secretary Signed signed W. B. McCool

Date 10/4/62

SUBJECT: ACTION SUMMARY OF MEETING 1877, WEDNESDAY, OCTOBER 3, 1962 11:45 A.M., ROOM A-410, GERMANTOWN, MARYLAND

SYMBOL: SECY:JCH

Commission Business

1. Minutes of Meetings 1862, 1863, 1864, and 1865

Approved, as revised.

2. AEC 25/223 - Proposed Safety Rules for Navy Weapon System

Approved. (Betts)

3. AEC 25/224 - Safety Rules for Weapon System

Approved, as revised. (Betts)

You said a minor editorial revision would be made in paragraph 5 of the letter to the Secretary of Defense.

Commissioner Ramey requested a report on the status of the DOD response to the Chairman's July 12, 1962 letter to Secretary Gilpatric. (Betts)

Commissioner Ramey also requested a review and further consideration of the AEC's responsibility for determining whether there is proper implementation of weapon safety rules. (Betts)

4. AEC 25/225 - Safety Rules for Weapons System for the Navy

Approved. (Betts)

5. AEC 25/226 - Proposed Changes to Missile System Rules

Approved. (Betts)

6. AEC 1095/10 - FY 1964 Budget Estimates and
AEC 1095/11 - Amendments to FY 1964 Budget Estimates

Discussed.

The Commission requested the transmittal letter to the BOB contained in AEC 1095/10 be revised to note the Commission favors continuing the PLUTO program but has not included any funds beyond TORY II-C pending a decision to continue the program. (Abbadessa)

The transmittal letter to the BOB (contained in AEC 1095/10) should also note that a decision on funding for the merchant ship reactors program should be made between the Maritime Administration, the BOB and the AEC. (Abbadessa)

D. C. Files

OPTIONAL FORM NO. 10
5010-104
UNITED STATES GOVERNMENT

Memorandum

UNCL. BY DOE
NOV 86

TO : A. R. Luedecke, General Manager

DATE: October 5, 1962

Approved _____
A. R. Luedecke
Date _____

FROM : W. B. McCool, Secretary Original signed W. B. McCool

SUBJECT: ACTION SUMMARY OF MEETING 1878, WEDNESDAY, OCTOBER 3, 1962
3:30 P.M., ROOM A-410, GERMANTOWN, MARYLAND

SYMBOL: SECY:MK

Commission Business

1. AEC 976/5 - Extension of Contract with ACF Industries, Inc. for Operation of South Albuquerque Works

   Approved. (Vinciguerra)

2. AEC 1119 - Proposed Extension of Contract with H. K. Ferguson Company

   Approved. (Vinciguerra)

3. AEC 1095/10 - FY 1964 Budget Estimates

The Commission determined the following amendments to the FY 1964 Budget Estimates to attain the expenditure level requested by the BOB:

(In Millions)

	Commission Approved Budget	Expenditure Level Requested by BOB	Differences
Operating Expenses			
Operating Costs:			
Raw Materials	$ 384.7	$ 384.671	- 0 -
Special Nuclear Materials	485.6	484.573	- 1.0
Weapons	745.7	689.7	- 56.0
Reactor Development	657.7	574.580	- 83.1
Physical Research	240.0	223.907	- 16.0
Biology & Medicine	79.4	76.373	- 3.0
Training, Education and Information	19.1	16.568	- 2.5

(In Millions)

	Commission Approved Budget	Expenditure Level Requested by BOB	Differences
Operating Costs: (Continued)			
Isotopes Development . . . . . $	10.1	8.99	- 1.1
Plowshare	19.4	9.97	- 9.4
Communities.	9.6	9.579	- 0 -
Program Direction and Administration	69.9	66.919	- 3.0
Security Investigations . . .	7.5	6.995	- 0.5
Other Costs	6.8	6.8	- 0 -
Total Costs	2,735.4	2,559.625	- 175.8
Changes in Selected Resources.	123.4	51.175	- 72.2
Total Obligations	2,878.8	2,610.800	- 248.0
Revenues	-28.5	-28.5	- 0 -
New Obligational Authority .	2,830.3	2,582.3	- 248.0
Expenditures	2,640.0	2,481.0	- 159.0
Plant Obligations			
Raw Materials	.025	.025	- 0 -
Special Nuclear Materials. . .	37.500	37.500	- 0 -
Weapons Program	50.155	46.155	- 4.000
Reactor Development Program. .	162.220	83.230	- 78.990
Physical Research Program. . .	54.835*	36.00	- 28.0
Biology & Medicine Program . .	3.765	3.765	- 0 -
Training, Education and Information Program	1.000	1.000	- 0 -
Isotopes Development Program .	.600	.600	- 0 -
Community Program	6.146	6.146	- 0 -
Program Direction and Administration	6.200	.100	- 6.100
Construction Planning and Design	5.000	- 0 -	- 5.000
Total Obligations for plant project	355.451	233.56	-121.89
Equipment			
Total Obligations	192.307	175.407	- 16.900

* This figure includes FY 1964 funds for Project 61-f-7 - Linear Electron Accelerator - Stanford, which were not included in the original submission to the BOB.

(In Millions)

	Commission Approved Budget	Expenditure Level Requested by BOB	Differences
Grand Total Plant and Equipment Obligations . . .	$ 547.758	408.763	-138.995
Grand Total Plant and Equipment Expenditures . .	505.000	459.00	- 46.0

4. AEC 1095/11 - Amendments to FY 1964 Budget Estimates

The Commission determined the following amendments to the FY 1964 Budget Estimates as submitted to the BOB on September 28, 1962:

(In Millions)

	BOB Submission	Revised Estimates	Amendments
Operating Expenses			
Operating Costs:			
Raw Materials	$ 384.7	$ 384.7	- 0 -
Special Nuclear Materials . .	485.6	485.6	- 0 -
Weapons	745.7	745.7	- 0 -
Reactor Development	657.7	608.1	- 49.6
Physical Research	240.0	232.407	- 7.640
Biology & Medicine	79.4	79.4	- 0 -
Training, Education and Information	19.1	17.568	- 1.5
Isotopes Development	10.1	8.1	- 2.0
Plowshare	19.4	19.4	- 0 -
Communities	9.6	9.6	- 0 -
Program Direction and Administration	69.9	69.9	- 0 -
Security Investigations . . .	7.5	7.5	- 0 -
Other Costs	6.8	6.8	- 0 -
Total Costs	2,735.4	2,676.645	-58.740
Changes in Selected Resources,	123.4	104.155	-19.260
Total Obligations	2,858.8	2,780.800	-78.000
Revenues	-28.5	-28.5	- 0 -
New Obligational Authority.	2,830.3	2,752.3	-78.0
Expenditures	2,640.0	2,585.0	-55.0

(In Millions)

	BOB Submission	Revised Estimates	Amendments
Plant Obligations			
Raw Materials . . . . . .$	.025	.025	- 0 -
Special Nuclear Materials . . .	37.500	37.500	- 0 -
Weapons Program	50.155	46.155	- 4.000
Reactor Development Program . .	162.230	149.120	-13.10
Physical Research Program . . .	82.840	102.435*	+19.595*
Biology & Medicine Program. . .	3.765	3.765	- 0 -
Training, Education and Information Program	1.000	1.000	- 0 -
Isotopes Development Program. .	.600	.600	- 0 -
Community Program	6.146	6.146	- 0 -
Program Direction and Administration	6.200	.100	- 6.100
Construction Planning and Design	5.000	5.000	- 0 -
Total Obligations for plant project	355.451	351.846	- 3.605
Equipment			
Total Obligations	192.307	190.807	- 1.500
Grand Total Plant and Equipment Obligations. . . .	547.758	542.653	- 5.105
Grand Total Plant and Equipment Expenditures . . .	505.000	496.000	- 9.0

* This figure includes FY 1964 funds for Project 61-f-7 - Linear Electron Accelerator - Stanford, which were not included in the original submission to the BOB.

OFFICE DIARY
GLENN T. SEABORG
Chr USAEC, 1961-72
FOLDER-PAGE 22020
DC FILE

October 3, 1962

901350

Dear Mr. Stratton:

Following our telephone conversation yesterday on the Allis-Chalmers contract matter, I received your telegram urging us to reconsider cancellation of the contract. I would like to take this opportunity to respond to your telegram and also to the concern you expressed about the lack of notification of our intended actions.

I believe that you first telephoned my office on September 14, 1962, at which time I was in Europe. My office indicated to you that we would inform you of developments in this matter in which you had expressed interest. It is my understanding that our General Manager, Mr. Luedecke, discussed the matter with your administrative assistant on September 21, and telephoned your office on September 28 and again on October 1 to inform you of further developments; and that a letter was dispatched to you on October 1 informing you of the Commission's actions. A similar letter was sent to Congressman Caller informing him and other members of the New York delegation of our actions.

I believe that I mentioned to you during our telephone conversation yesterday that the Commission has asked Allis-Chalmers to submit a proposal for an engineering analysis of the overall PM-3B design. While we have not yet received such a proposal, it is possible that a significant number of the 95 employees now engaged in the current PM-3B project could be required for this effort. It should be noted that the PM-3B project is the only work in the Schenectady area affected by the cancellation.

We would wish, naturally, that we could communicate to you a result more in keeping with your interests in this matter. The Commission believes, however, that the decision we have taken is the sound course of action under the present circumstances. It was taken only after very careful review of all aspects of this project, and our decision to defer the PM-3B

CONFIRMED TO BE UNCLASSIFIED
AUTHORITY: DOE - DPC
BY C. B. WILSON, DATE:
6/2/86
6/4/86

OFFICE DIARY
GLENN T. SEABORG
Chr USAEC, 1961-72
FOLDER-PAGE 22021

project by cancellation of the Allis-Chalmers contract was made reluctantly, after exhaustive deliberations.

The Commission does, however, understand your concern and we will be pleased to supply any additional information you may desire.

I look forward to seeing you on Thursday, October 4. I trust that 10:30 a.m., at my office at 1717 "H" Street, N. W., remains a convenient time and place for you.

Cordially,

(Signed) Glenn T. Seaborg

Glenn T. Seaborg

Honorable Samuel S. Stratton
House of Representatives
Washington 25, D. C.

HCBrown:MJ

would be delighted to have the Congressman accompany me if he wishes. If he does go with me, people would at least know that we are getting a firsthand view of it.

I called Congressman Tom Morris (New Mexico) and told him we have been working on the uranium problem where the commitments to purchase expire at the end of 1966, and I have a progress report, of a sort, to make. Since this hasn't yet cleared the Bureau of the Budget, I asked him to keep it confidential.

I said we are working on a stretchout whereby, on a voluntary basis, a producer could defer delivering up to a total of 16,000 tons of material which would have come in before the end of the calendar year 1966, to 1967 and 1968, at the same price of $8 per pound. They could send us an additional 16,000 tons in 1969 and 1970, at some kind of a price related to production cost ($8 would no longer be a sensible price at that time). I said we have a formula for calculating the cost for the 1969 and 1970 production at a maximum rate of $6.70 per lb. and the price would be related to the cost of production below that. I said we are trying to work out some kind of an arrangement that would keep industry viable--this would be 8,000 tons per year total.

I pointed out that some time in the late 1970s the need for uranium for civilian power will be as great as it will be for weapons and by then industry should be on its feet. I said we also have a special inducement for small producers where we would pay them the top price up to 500 tons. He appreciated my calling him about this.

I called Senator Anderson to give him a confidential progress report--as I had done with Congressman Morris on the uranium stretchout program. Senator Anderson said he thinks this is a very sensible plan.

Haworth and I met with Harold Etherington of Allis-Chalmers to hear his protest to the AEC for dropping the PM-3B (Antarctic Byrd reactor) project.

Friday, October 5, 1962 - D.C.

At 11 a.m. I presided over Information Meeting 199 (notes attached). I discussed with the Commissioners the necessity for keeping the latest report of the Bethe Panel on Russian tests, secret, as directed by the President.

I had lunch at the University Club with Manson Benedict. We discussed the matter of Teller and Oppenheimer receiving the Fermi Award--perhaps Teller this year and Oppenheimer next year. We also discussed reinstating Oppenheimer's clearance and using him in some capacity.

At 2:30 p.m. the Commission met with the ACRS to hear their indignation at the way things have been handled with the NS Savannah. They think the Maritime Commission and the AEC have foregone safety considerations in order to meet the demands for premature entrance into ports (Savannah, Norfolk and Seattle). They oppose entrance into further ports (Portland, Hawaii, Los Angeles). I tried to explain the basis for the AEC's decisions and to place them in perspective.

I called Harold Brown to find out whether he has any more information as to where they are going with PLUTO. He said that his inclination--and he feels the Secretary feels this way too--is to allow a few million dollars--say, something like $4 million in the Air Force 1964 budget. This would not be for the purpose of doing an engine test, but rather for studies of aerodynamics. Also, they would urge the AEC to finish TORY 2-C. In that way, we will have solved the physics problems and the fundamental engineering problems. Then it will be up to the services to say whether they want to go ahead. I said that in our letter to BOB,

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

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NOV 86

COPY NO. 15

October 5, 1962

INFORMATION MEETING 199

12:05 p.m., Friday, October 5, 1962 -- Chairman's Office, D.C.

1. Representative Jensen's October 1 Letter re NPR -

The Chairman requested preparation of an early response. Mr. Ramey suggested the desirability of transmittal of additional record information to the Joint Committee. (Quinn)

2. Commissioners' Meeting with GE-Kaiser-Burns and Roe 2:00 p.m., Monday, October 8 -

The Chairman will chair the meeting and a briefing paper is to be circulated for the Commissioners' use. (Quinn)

3. Civilian Nuclear Power Study -

The Chairman noted receipt of Mr. Bell's October 2 letter to the Secretary of Interior, Federal Power Commission and others requesting comments on the draft. The meeting at the Bureau of the Budget is tentatively scheduled for Wednesday, October 10. A reporting date of November 1 is proposed.

4. October 4 Meeting with Mr. Etherington of Allis-Chalmers -

Noted.

5. Discussions with Mr. Bhabha re Tarapur Reactor Project -

The Chairman commented briefly on Mr. Wells' cable report on his meeting with Mr. Bhabha in which it appeared that Bhabha is receding on the previous position on safeguards. Dr. Haworth commented that he thought the Commission's recommendations to the Department of State should be very firm on this matter, and Mr. Ramey added in connection with the Spanish request for toll enrichment, it might be desirable to consider provisions for an agreement on safeguards. (Wells)

6. Special Committee Report -

7. AEF-American Nuclear Society November Meeting, Washington -

The Chairman said it is hoped that the attending members of the original Fermi group will be able to pay a visit on The President at the time of the meeting.

8. Letter to the Secretary of Defense re PLUTO Program -

The Commissioners agreed the letter should not be sent, and the Chairman said he would call Mr. Harold Brown to indicate that this matter has been flagged in the Commission's budget submission.

9. Agenda for the Week of October 8 -

Approved as revised.

10. Press Release on Policy on Purchase of Plutonium Produced Abroad in Reactors Fueled with U.S. Uranium -

The Commissioners requested consideration at the Information Meeting on Monday, October 8. (Ink)

11. Congressional Action on Fiscal 1963 Budget -

The Commissioners requested a report today. (Abbadessa)

12. Briefing on NTS Community -

Mr. Ink proposed a joint AEC-NASA briefing for the week of October 15.

13. Congressional Action on Conflict of Interest Law -

Mr. Hennessey will circulate a report for discussion on Monday. (GC)

Present		Distribution
Dr. Seaborg	Mr. Ink	Commissioners
Dr. Haworth	Mr. Hennessey	General Manager
Mr. Palfrey	Mr. Brown	General Counsel
Mr. Ramey	Mr. McCool	Secretary

W. B. McCool
Secretary

we will state our PLUTO budget can't be decided until we have the DOD decision. In this way we will keep the matter open.

The family and I left for New York on the 6 p.m. train and spent the night at the Statler-Hilton Hotel.

Saturday, October 6, 1962 - New York City

I spent the day attending the annual National Educational Television Board of Directors meeting at its headquarters in the Columbus Towers.

The rest of the family, accompanied by Lynne's friend, Helen Brough, visited the Statue of Liberty, the Empire State Building, and other places of interest in New York.

All of us, plus Jim Haddow, had dinner at Toffenetti's on Broadway and 43rd Street. All of us then (except Haddow) walked up Broadway and saw and talked to Jack Dempsey at his restaurant, visited Rockefeller Center and walked back to the Statler-Hilton along Fifth Avenue.

Sunday, October 7, 1962 - New York City - Washington

We went to the top of the Empire State Building. Helen, Pete, Dave, Steve, Eric and I went to Yankee Stadium and saw the New York Yankees defeat the San Francisco Giants, 3-2, in a World Series game. Lynne and Helen Brough were in charge of Dianne while we went to the game.

I returned to Washington on the 5:30 p.m. train.

Top of Empire State Building, New York, New York, October 7, 1962

L to R: Pete, Lynne, Dave, Helen (holding Dianne), Eric and Stephen Seaborg

Monday, October 8, 1962 - D.C. Office - Los Angeles

At 10:15 a.m. I presided over Information Meeting 200 (notes attached).

I signed the DOD-NASA-AEC agreement (copy attached) for the management of SNAP-50 (McNamara and Webb are the other signatories). This is the culmination of negotiations lasting nearly a year. AEC will control the entire development stage with an Air Force man in charge reporting to AEC.

I transmitted two revised FY 1964 budgets (copies attached) to the Bureau of the Budget--one limited to $2.9 billion at Bell's request and the other cut from $3.145 billion (as already submitted) to $3.081 billion.

Both RIPPLE II and OBOE, the first two Johnson Island development tests last week, failed.

I had lunch with Ed Pauley at the Mayflower Hotel. We discussed the Lawrence Hall of Science, my plans for the future, etc.

Regarding Christmas Island, Kaysen is suggesting to the State Department that we go to the U.K. and try to get an interim agreement on the storage of our equipment. This would give us time to consider what we could do about a permanent arrangement. I said I will check this out here at AEC and the latter part of the week, upon my return from a trip, I will let him know.

The Commissioners, the General Manager, Bloch, Quinn and others met with Edgar Kaiser, Lou Oppenheim and William Bart (Kaiser Engineering); Lyman Fink and Wilfred Johnson (G.E.); Kenneth Roe (Burns and Roe), and Jim Travis (Manager of Hanford), to admonish them that they must somehow finish the NPR without more overruns. (They threaten a $12 million overrun.)

I signed my biweekly report (copy attached) to the President which is devoted to my European trip.

At 6 p.m., accompanied by Vic Schmidt, I flew to Los Angeles on American flight no. 75 and arrived at 7:45 p.m.

I spent the night with my mother in South Gate, my boyhood home, at 9237 San Antonio Avenue.

Tuesday, October 9, 1962 - Los Angeles

I gave a speech to the Los Angeles World Affairs Council, at the Cocoanut Grove in the Ambassador Hotel, on "Nuclear Science and Strategies for Peace." The meeting was attended by 250 people, including Lee DuBridge, Vern Knudsen, Ed Carter, Phil Boyd and Chauncey Starr.

I spent an hour and a half with Chauncey Starr, discussing (1) the possibility of Los Angeles Power and Light coming in under the second round for Atomic International's sodium graphite reactor and (2) the SNAP-4 program which AI wants to keep and develop into important uses in DOD.

I again spent the night in South Gate with my mother.

Wednesday, October 10, 1962 - Los Angeles - Houston

I attended the 75th anniversary celebration at Whittier College and gave a talk entitled, "Atomic Power and Space." I was introduced by Chet Holifield. Mother,

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

COPY NO.

October 8, 1962

UNCL. BY DOE NOV 86

INFORMATION MEETING 200

10:15 a.m., Monday, October 8, 1962 - Chairman's Office, D. C.

1. AEC-Air Force-NASA Agreement on Management of Advance SNAP Systems Program

The Chairman noted he would sign the Agreement today and that it is available in his office if the Commissioners wish to see it.

2. Fiscal Year 1964 Budget Estimates

The Chairman suggested the Commissioners review the two transmittal letters and attachments prior to his signature later today.

3. Meeting with Officials of General Electric, Kaiser Company and Burns & Roe

The Chairman said he wished to review Commission testimony at the Appropriations Committee hearing (NPR). (Brown)

4. DOMINIC Events

The Commissioners commented briefly on the Saturday event and the Chairman requested preparation of an early report to the White House on the RIPPLE II Event. (Betts)

5. Letter to Bureau of the Budget re Manpower Control Statement

The Chairman will sign the letter today commenting on Mr. Staats' letter of October 5. The Commissioners requested a briefing on AEC manpower utilization. (Tackman)

6. Revised Authorization for N.S. Savannah Operations

In response to the Commissioners' comments on their meeting with the Advisory Committee on Reactor Safeguards Friday, October 5, at which the operation of the N.S. Savannah was discussed, the General Manager said a revised authorization will be forwarded for early Commission consideration. (DR-GM)

The Chairman reiterated his statement re Committee participation in review of Port Visit schedules. (DR-GM)

7. General Counsel's Memorandum to the Commissioners dated October 5 Regarding Conflict of Interest Law

Mr. Hennessey discussed briefly the advantages of the new regulations and said the AEC is recommending signature by the President.

8. Policy re Purchase of Plutonium Produced in Reactors Abroad which are Fueled with United States Uranium

The Commissioners discussed briefly the advantages of issuance of a public statement, and the Chairman said he would discuss the matter with Congressman Holifield during his California visit. The Commissioners will in the meantime review the matter looking to early discussion.

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

W. B. McCool
Secretary

DC FILE

THE SECRETARY OF DEFENSE
WASHINGTON

UNCL. BY DOE
NOV 86

NOV 26 1962

Dear Glenn:

A copy of the Memorandum of Understanding between the AEC, NASA and DOD concerning the SNAP-50/SPUR Nuclear Electric Space Power Unit signed on this date is enclosed.

As a first step in this joint, cooperative effort, I am requesting the Secretary of the Air Force to initiate appropriate activities assigned under the provisions of paragraph III. B. 2., and to prepare the draft of the Addendum provided for under paragraph IV. C. of the Memorandum, for coordination.

Sincerely,

Bob

Enclosure
Memorandum of
Understanding

Dr. Glenn T. Seaborg
Chairman
Atomic Energy Commission

MEMORANDUM OF UNDERSTANDING

UNCL. BY DOE
NOV 86

Between the
Atomic Energy Commission
the
National Aeronautics and Space Administration
and the
Department of Defense

Specific Agreement - SNAP-50/SPUR Nuclear Electric Space Power Unit

I. Purpose

The purpose of this agreement is to delineate the authorities and responsibilities of the Atomic Energy Commission, the Department of Defense, and the National Aeronautics and Space Administration in the research and technology and component development phase of a specific advanced nuclear electric space power unit, referred to hereafter as SNAP-50/SPUR. The SNAP-50/SPUR power unit is defined as a system having a power of approximately 300 kilowatts to 1 megawatt electrical which is capable of operating for at least 10,000 hours with a specific weight of some 10 to 20 pounds per kilowatt electrical unshielded.

II. General

The Atomic Energy Commission, the Department of Defense, and the National Aeronautics and Space Administration recognize that nuclear energy offers the potential of a significant performance advantage over other space-power concepts when applied to future space missions. They recognize further that application of nuclear energy to such missions will require their cooperative efforts to ensure effective system development as well as to ensure that the statutory responsibilities of each agency are properly fulfilled. It is the intention, therefore, of this document to establish an operating agreement solely in relation to the research and technology and component development phase of the SNAP-50/SPUR space power unit feasibility demonstration program. Agreement as to eventual development responsibilities of the agencies for operational SNAP-50/SPUR space power units will be established at such time as the specific operational requirements of the user agencies may dictate.

III. Agency Responsibilities

A. Recognizing the responsibilities assigned:

1. By the Atomic Energy Act of 1954, as amended, to the AEC for conducting, assisting and fostering a program of research and development and to encourage widespread participation in the development and use of nuclear energy.

2. By the National Aeronautics and Space Act of 1958, as amended, to NASA for control over aeronautical and space activities sponsored by the United States, except for activities peculiar to or primarily associated with the development of weapons systems, military operations or the defense of the United States, which are the responsibility of the Department of Defense.

3. By the Memorandum of Understanding of 8 September 1961 between the Department of Defense and the Atomic Energy Commission (General Agreement - Aerospace Nuclear Power), to the AEC and the DOD.

B. It is agreed that the following authorities and responsibilities will be assigned:

1. The Atomic Energy Commission will:

a. Have complete management responsibility and authority for the conduct of all nuclear as well as non-nuclear component research and development required for the SNAP-50/SPUR power unit as well as integration of the reactor and non-nuclear components into an experimental system.

b. Have primary responsibility and authority for nuclear safety through all phases of development (including flight test).

2. The Department of Defense, acting through the United States Air Force, will:

a. Establish and define military requirements for the power unit.

b. Be responsible for supplying, on the basis of its own in-house laboratory and contractor program of non-nuclear component research and technology for electric generating systems, supporting design data and information, and providing direct project support on those elements assigned to the Air Force.

c. Be responsible for flight tests of the complete nuclear-electric power system.

d. Be responsible for integration of the nuclear-electric power system with other Air Force mission system components, including the space vehicle and the launch complex.

3. The National Aeronautics and Space Administration will:

a. Be responsible for supplying, on the basis of its own in-house laboratory and contractor program of non-nuclear component and system research and technology development for electric generating systems aimed at power levels into the multimegawatt range, such supporting design data and information as may be appropriate for the SNAP-50/SPUR system.

IV. Management and Organization

A. Management will be accomplished by a SNAP-50/SPUR Program Office responsible solely to the Atomic Energy Commission. The office will be headed by an Air Force member, assigned for duty to AEC, referred to hereafter as the Program Manager, selected by the signatories hereto or their designees on the basis of his capability and demonstrated experience to manage such project. Appropriate authority to direct the research and development project for the combined SNAP-50/SPUR power plant, including the reactor and non-nuclear components, will be vested in the Program Manager by the AEC. An Air Force deputy, with appropriate authority from the Air Force, will be assigned to the AEC to assist the Program Manager in carrying out the project and will be empowered to act for the Program Office in areas assigned by the Program Manager. A NASA deputy, with appropriate authority from NASA, will be assigned to assist the Program Manager in carrying out the project. Their major responsibilities will be to: (a) provide liaison with the nuclear electric power programs of their respective agencies; (b) assure that information generated in the Air Force and NASA programs is brought to bear on the project; and (c) assure that the project needs are reflected in the Air Force and NASA programs.

B. The existing structures, interagency channels, and procedures of the AEC, Air Force, and NASA for conducting research and development will be utilized to the maximum extent possible. Recognizing that there are already in existence programs and facilities within the Agencies directly related to the development of SNAP-50/SPUR it is the expressed intention to utilize these to the fullest extent appropriate and feasible in the conduct of this program. Toward this end, it is intended that in the area of conversion equipment certain specific component

effort will be assigned to the Air Force. With respect to contractual commitments, AEC procedures will be used by the Program Office, and the Air Force and NASA procedures, respectively, in connection with Air Force and NASA contracts.

C. The specific manner of funding of the SNAP-50/SPUR project will be established consistent with the Agency responsibilities enumerated above and will be the subject of an Addendum to this Agreement.

JAMES E. WEBB Administrator, NASA	GLENN T. SEABORG Chairman, AEC	ROBERT S. McNAMARA Secretary of Defense

UNCLASSIFIED

October 11, 1962

AEC 1095/14

COPY NO. 67

ATOMIC ENERGY COMMISSION

AMENDMENTS TO THE FY 1964 BUDGET ESTIMATES

Note by the Secretary

The Office of the Controller has requested that the attached report, which was submitted to the Bureau of the Budget by letter of October 8, 1962, be circulated for the information of the Commission.

326 US ATOMIC ENERGY COMMISSION
SECRETARIAT
1320
FY 64 Budget

W. B. McCool

Secretary

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

October 8, 1962

Dear Mr. Bell:

In my letter of September 28, 1962, transmitting the Commission's fiscal year 1954 budget submission, I indicated that the Commission intended to review further our budget estimates. This review has now been completed and as a result our previous submission should be revised as follows:

	(In Thousands)		
	Sept. 28 Submission	Revised Estimates	Proposed Amendments
New Obligational Authority			
Operating Expenses	$2,830,300	$2,752,300	$ -78,000
Plant and Equipment....	547,758	542,653	- 5,105
Total NOA	3,378,058	3,294,953	-83,105
Expenditures			
Operating Expenses	2,640,000	2,585,000	-55,000
Plant and Equipment ...	505,000	496,000	- 9,000
Total Expenditures.	3,145,000	3,081,000	-64,000

While the specific items and amounts involved in the proposed amendments are being transmitted separately to your staff, there are several items involved in these amendments which should be noted.

DOE ARCHIVES

First, the appropriation requested for Plant and Equipment is increased $36,000,000 to provide the FY 1964 obligational needs for the Stanford Linear Accelerator project. You will recall that my letter of September 28 indicated that if the Senate did not restore the House reduction of $60,000,000 for the full funding of this project, it would be necessary to increase our 1964 appropriation by $36,000,000. Since the House action has been sustained, this amendment therefore becomes necessary.

Second, the Commission has reduced the amount included in our Operating Expenses appropriation for the Pluto program on the basis of concluding the program upon completion of the operation of the Tory II-C test. As you are aware from our previous discussions, the Commission believes this program should be pursued beyond Tory II-C, but in the absence of clear-cut direction from the Department of Defense for such a course of action, we are amending our budget request on the basis mentioned above. In the event a policy decision is made to continue this program beyond Tory II-C, we would further amend our budget request to include such funds as may then be necessary.

Third, the Amendments provide for the deletion of funds for a merchant ship nuclear reactor propulsion program beyond the N.S. SAVANNAH program. The Commission believes, however, that a final decision on this matter should be made only after consultation between our respective agencies and the Maritime Administration.

Finally, it should be noted that we have not assumed any reduction in expenditures for uranium concentrates as a result of the proposed "stretch-out" of procurement schedules, since no specific program has been adopted. The successful implementation of such a program affecting FY 1964 would, of course, result in a decrease in our financial requirements; for the specific program under consideration by the Commission, this might amount to approximately $40,000,000.

The program decisions mentioned above and the decisions underlying the other program changes, upon which our revised estimates are based, were arrived at only after the most serious consideration by the Commission. While we recognize that the sum total of funds requested in the amended estimates are still somewhat higher than your planning figure for the Commission, we strongly believe that the programs and activities upon which our now amended estimates are based represent priority needs in meeting national goals and objectives. However, in view of your request for the type of program possible under the $2.9 billion planning figure, we are submitting separately, the further adjustments that would have to be made from our amended budget to remain within this planning amount.

Sincerely yours,

/s/ DOE ARCHIVES

Glenn T. Seaborg
Chairman

Honorable David E. Bell
Director, Bureau of the Budget

Enclosure:
As stated

U. S. Atomic Energy Commission

Amendments to the AEC's FY 1964 Budget Estimates
Submitted September 28, 1962

DOE ARCHIVES

Operating Expenses
Capital Plant and Equipment

302

October 8, 1962

Analysis of Amendments to the AEC's FY 1964 Budget Estimates
Submitted September 28, 1962
Operating Expenses Appropriation

	(In Thousands) FY 1964		
	AEC Submission of 9/28/62	Revised Estimate	Amendments
Raw Materials	$ 384,671	$ 384,671	$ 0
Special Nuclear Materials	485,573	485,573	0
Weapons	745,700	745,700	0
Reactor Development			
Civilian Power - Government			
Seed and Blanket	11,000	8,500	-2,500
Heavy Water - Other	2,800	2,000	-800
Organic Cooled - Other	1,480	980	-500
Gas Cooled - Other	8,100	7,400	-700
All Other Civilian Power	75,600	75,600	0
Total Civilian Power - Government	98,980	94,480	-4,500
Merchant Ship Reactors	9,000	5,500	-3,500
Missile Propulsion Reactors (Pluto)	39,900	7,000	-32,900
Satellite and Small Power Sources (SNAP)	107,490	104,990	-2,500
General Reactor Technology	69,335	64,335	-5,000
Advanced Systems R&D	27,247	26,047	-1,200
All Other	305,748	305,748	0
Total Reactor Development	657,700	608,100	-49,600
Physical Research			
High Energy Physics			
Accelerator Design Studies	8,140	7,000	-1,140
Other High Energy Physics	86,508	85,508	-1,000
Other Physics and Mathematics	40,101	38,501	-1,600
Chemistry	52,565	51,165	-1,400
Metallurgy and Materials	25,783	24,983	-800
Controlled Thermonuclear	23,950	23,750	-200
Nuclear Science and Engineering Research	3,000	1,500	-1,500
Total Physical Research	240,047	232,407	-7,640

DOE ARCHIVES

3003

	(In Thousands) FY 1964		
	AEC Submission of 9/28/62	Revised Estimate	Amendments
Biology and Medicine	$ 79,373	$ 79,373	$ 0
Training, Education, and Information			
Equipment Grants	3,000	2,500	-500
Training Institutes	2,402	1,702	-700
University - Laboratory Cooperative Program	520	220	-300
All Other	13,146	13,146	0
Total Training, Education, and Information	19,068	17,568	-1,500
Isotopes Development	10,090	10,090	0
Plowshare	19,370	19,370	0
Community	9,579	9,579	0
Program Direction and Administration	69,919	69,919	0
Security Investigations	7,495	7,495	0
Other Costs	6,800	6,800	0
Total Program Costs	2,735,385	2,676,645	-58,740
Changes in Selected Resources	123,415	104,155	-19,260
Total Obligations	2,858,800	2,780,800	-78,000
Revenues	-28,500	-28,500	0
New Obligational Authority	$2,830,300	$2,752,300	$ -78,000
Expenditures	$2,640,000	$2,585,000	$ -55,000

ARCHIVES

OCT

Analysis of Amendments to the AEC's FY 1964
Budget Estimates
Submitted September 28, 1962

(In Thousands)

	AEC Submission of 9/28/62	Revised Estimate	Amendments
Reactor Development			
1. Civilian Power Reactors - Government			
a. Seed and Blanket	$ 11,000	$ 8,500	$ -2,500
b. Heavy Water -- Other	2,800	2,000	-800
c. Organic Cooled -- Other	1,480	980	-500
d. Gas Cooled -- Other	8,100	7,400	-700
e. All Other -- Civilian Power	75,600	75,600	0
Total Civilian Power Reactors - Government	98,980	94,480	-4,500
2. Merchant Ship Reactors	9,000	5,500	-3,500
3. Missile Propulsion Reactors (Pluto)	39,900	7,000	-32,900
4. Satellite and Small Power Sources (SNAP)	107,490	104,990	-2,500
5. General Reactor Technology	69,335	64,335	-5,000
6. Advanced Systems R&D	27,247	26,047	-1,200
7. All Other	305,748	305,748	0
Total	$657,700	$608,100	$-49,600

1.a. Seed and Blanket..... 11,000 8,500 -2,500

DOE ARCHIVES

The submission to the Bureau assumed that initial work will have shown sufficient promise to warrant a follow-on development effort. This arbitrary reduction is based on continuing the follow-on program at a slower rate than previously anticipated.

1.b. Heavy Water -- Other..... 2,800 2,000 -800

This reduction is an arbitrary one to hold this effort in FY 1964 at a minimum level which will still permit the conduct of fruitful research and development in conjunction with operation of the Heavy Water Components Test Reactor.

1.c. Organic Cooled -- Other..... 1,480 980 -500

This reduction is an arbitrary one to hold this effort in FY 1964 at a minimum level which will still permit the conduct of essential research and development utilizing the Experimental Organic Cooled Reactor.

1.d. Gas Cooled -- Other..... 8,100 7,400 -700

This reduction would arbitrarily reduce the planned level of effort for ORNL development of metal clad fuels.

2. Merchant Ship Reactors..... 9,000 5,500 -3,500

This reduction eliminates funds for R&D on two reactor concepts, namely a consolidated nuclear steam generator (CNSG) and an air-cooled, high enrichment water moderated nuclear steam generator (630-A); and makes no provision for a maritime reactors program beyond the N. S. Savannah. However, the Commission believes that a final decision on this matter should be made only after consultation between the Commission, the Maritime Administration, and the Bureau of the Budget.

3. Missile Propulsion Reactors (Pluto)..... 39,900 7,000 -32,900

This reduction is based on the assumption that the program would be cancelled after completion of the Tory II-C test. However, the Commission strongly believes that this program should be carried on beyond Tory II-C, and desires to pursue a follow-on program. In the absence of a specific directive from the DOD, the funds for such a carry-on program have been deleted.

	AEC Submission of 9/28/62	Revised Estimate	Amendments
4. Satellite and Small Power Sources (SNAP).....	107,490	104,990	- 2,500

The estimates submitted to the BOB included $3.0 million for Space Power Thermionic R&D, with $1.5 million designated for work at General Atomics and $1.5 million for work at General Electric. This arbitrary reduction would apply $1.5 million to this effort, and would hold both contractors to lower levels in FY 1964.

The estimates also include $2.0 million for Other Advanced Space Power Systems to investigate space power systems in the tens of megawatts (e), including work at ANL on a single-fluid concept, and initiation of investigations on an optimum Brayton cycle application to space power systems. This arbitrary reduction would essentially eliminate the proposed work on the Brayton cycle.

5. General Reactor Technology.....	69,335	64,335	- 5,000

This reduction would slow down the growth in this program planned under the submission to the BOB. The revised estimate, in view of the urgent work on advanced materials research and development and advanced components work related to the space program would necessitate primarily elimination or curtailment of work other than that related to the space program.

DOE ARCHIVES

6. Advanced Systems R&D.....	27,247	26,047	-1,200

The estimates submitted to the BOB included $6.2 million for Other Advanced Systems R&D to provide for work on such projects as an advanced high temperature gas reactor, an underseas reactor concept, chemonuclear development, gaseous core reactors, settle bed reactor, and direct conversion devices. The Commission believes that all of these projects should be pursued. However, in the interest of minimizing expenditure demands in fiscal 1964, an arbitrary reduction of $1.2 million has been made. This reduction has the effect of eliminating the proposed efforts on an underseas reactor concept and the gaseous core reactors, and reducing the planned effort on direct conversion devices.

Physical Research

1. High Energy Physics			
a. Accel. Design Studies.....	8,140	7,000	- 1,140
b. Other High Energy Physics.....	86,508	85,508	- 1,000
2. Other Physics & Math.	40,101	38,501	- 1,600
3. Chemistry.....	52,565	51,165	- 1,400
4. Metallurgy & Materials:.....	25,783	24,983	- 800
5. Controlled Thermonuclear.....	23,950	23,750	- 200
6. Nuclear Science and Engineering Research	3,000	1,500	- 1,500
Total.....	240,047	232,407	- 7,640

1. through 5.
These decreases represent arbitrary reductions to reflect a more modest rate of growth over the FY 1963 levels.

6. Nuclear Science and Engineering Research	3,000	1,500	- 1,500

The reduction would hold down the rate of growth for this new program for initiation of research at colleges and universities to bridge the gap in the so-called "gray" areas between basic and applied research which are not now receiving adequate support. Areas which should be studied are: boiling and heat transfer, fluid dynamics, neutron and lattice physics, shielding, mass transfer in chemical systems, etc. While the Commission believes that worthwhile projects could be conducted at a $3.0 million level in FY 1964, it recognizes that this is a new program which could be conducted at a somewhat lower level in the first year. Therefore, in the interest of minimizing expenditure demands in fiscal 1964, this new program is being arbitrarily held to the amount of $1.5 million.

	AEC Submission of 9/28/62	Revised Estimate	Amendments
Training, Education and Information			
1. Equipment Grants.....	$ 3,000	$ 2,500	$ - 500
2. Training Institutions.....	2,402	1,702	- 700
3. University--Laboratory Cooperative Program.....	520	220	- 300
4. All Other.....	13,146	13,146	-0-
Total.....	19,068	17,568	- 1,500
1. Equipment Grants.....	3,000	2,500	- 500

This activity was held to a level of $1.5 million in FY 1963 on the basis that FY 1963 would be the terminal year for administration of these grants by AEC. In subsequent discussions between the Director of the Bureau of the Budget and the Chairman of the Commission, it was agreed that the Commission should coordinate the requirements of the program with NSF and NIH, to avoid overlapping duplication. This has been done, and as a result, the Commission foresees requirements for equipment grants in FY 1964 of at least $3.0 million. However, in the interest of minimizing expenditure demands in fiscal 1964, the estimates have been held to essentially the FY 1962 level, for a reduction of $0.5 million.

2. Training Institutes.....	2,402	1,702	- 700
3. University--Laboratory Cooperative Program.....	520	220	- 300

DOE ARCHIVES

These arbitrary reductions are based on providing a level of effort comparable to the FY 1963 level.

Changes in Selected Resources.....	123,415	104,155	-19,260

This reduction is related to the program changes discussed above.

Analysis of Amendments to the AEC's FY 1964 Budget Estimates
Submitted September 28, 1962
Capital Plant and Equipment Appropriation

		(In Thousands) FY 1964		
		AEC Submission of 9/28/62	Revised Estimate	Amendments
Plant Obligations				
Program and Project				
Raw Materials				
64-m	General plant projects	$ 25	$ 25	$ 0
Special Nuclear Materials				
64-a-1	Modifications to production and supporting installations	5,000	5,000	0
64-a-2	Waste fractionization facilities, Hanford, Washington	3,700	3,700	0
64-a-3	Special reprocessing facilities	5,500	5,500	0
64-a-4	Additional waste storage facilities, Savannah River, South Carolina	7,700	7,700	0
64-a-5	Additional waste storage facilities, Arco, Idaho	3,400	3,400	0
64-b-1	Additional boiler for heating plant, Hanford, Washington	700	700	0
64-m	General plant projects	11,500	11,500	0
	Total	37,500	37,500	0
Weapons Program				
64-c-1	Weapons production, development, and test installations	10,000	10,000	0
64-c-2	Gas Laboratory addition, Lawrence Radiation Laboratory, California	990	990	0
64-c-3	Radiography facility, Sandia Base, New Mexico	275	275	0
64-c-4	Explosive component plant, Mound Laboratory, Miamisburg, Ohio	1,590	1,590	0
64-c-5	Fabrication building addition, Rocky Flats, Colorado	2,140	2,140	0
64-d-1	Theoretical and computations building, Lawrence Radiation Laboratory, California	4,470	4,470	0
64-d-2	Additions to administration and computer buildings, Los Alamos Scientific Laboratory, New Mexico	3,400	3,400	0
64-d-3	Technical area utility improvements, Los Alamos Scientific Laboratory, New Mexico	865	865	0
64-d-4	Steam plant addition, Sandia Base, New Mexico	655	655	0
64-d-5	Test range improvements, Tonopah, Nevada	760	760	0
64-d-6	Development support and test laboratory, ACF plant, Albuquerque, New Mexico	2,500	0	2,500
64-d-7	Manufacturing standards laboratory, Rocky Flats, Colorado	720	720	0

DOE ARCHIVES

	(In Thousands) FY 1964		
	AEC Submission of 9/28/62	Revised Estimate	Amendments
Weapons Program - continued			
64-d-8 Instrument maintenance and standards addition, Y-12 plant, Oak Ridge, Tenn....	$ 590	$ 590	$ 0
64-d-9 Addition to development laboratory, Y-12 plant, Oak Ridge, Tennessee	1,700	1,700	0
64-d-10 Base construction, Nevada Test Site	6,500	5,000	- 1,500
64-m General plant projects	13,000	13,000	0
Total.....	50,155	46,155	- 4,000
Reactor Development Program			
64-e-1 Zero power plutonium reactor, National Reactor Testing Station, Idaho.....	2,650	2,650	0
64-e-2 Fast reactor test facility, National Reactor Testing Station, Idaho	12,000	12,000	0
64-e-3 Military compact reactor, National Reactor Testing Station, Idaho	12,000	12,000	0
64-e-4 Safety test engineering plant, National Reactor Testing Station, Idaho	19,400	19,400	0
64-e-5 Power burst facility, National Reactor Testing Station, Idaho	5,600	0	- 5,600
64-e-6 Support facilities for advanced space power systems, National Reactor Testing Station, Idaho.....	1,800	1,800	0
64-e-7 Expansion of expended core facility, National Reactor Testing Station, Idaho..	3,000	3,000	0
64-e-8 Modifications to CANEL facilities, Middletown, Connecticut.....	1,455	1,455	0
64-e-9 Research and development test plants for Project Rover, Los Alamos Scientific Laboratory, New Mexico and Nevada Test Site.....	5,000	5,000	0
64-e-10 Modifications to radioactive materials handling facilities, Savannah River, South Carolina.....	1,000	1,000	0
64-e-11 High temperature lattice testing reactor, Hanford, Washington.....	2,500	2,500	0
64-e-12 Modifications to reactor facilities.....	5,000	5,000	0
64-e-13 Prototype power reactor.....	55,000	55,000	0
64-e-14 SNAP development and test facilities, Santa Susana, California	1,400	1,400	0
64-e-15 Thorium-uranium fuel cycle development facility, Oak Ridge National Laboratory, Tennessee.....	7,275	7,275	0
64-f-1 Road network, National Reactor Testing Station, Idaho.....	2,740	2,740	0
64-f-2 Administration building, Argonne National Laboratory, Illinois.....	7,500	0	- 7,500
64-f-3 Heating plant boiler No. 5 Argonne National Laboratory, Illinois.....	1,900	1,900	0
64-(AE)-1 Engineering and design for Rover test plant addition at Nevada Test Site .	3,000	3,000	0
64-m General plant projects.....	12,000	12,000	0
Total.....	162,220	149,120	-13,100

DOE ARCHIVES

U. S. Atomic Energy Commission
Analysis by Program of Budget Changes
Under $2.940 Billion Expenditure Level for FY 1964
Capital Plant and Equipment

		(In Thousands) FY 1964 Estimates		
		Amended AEC Budget	Under $2.940 Billion Expenditure Estimate	Difference
Plant Obligations				
Program and Project				
Raw Materials				
64-m	General plant projects	$ 25	$ 25	$ 0
Special Nuclear Materials				
64-a-1	Modifications to production and supporting installations	5,000	5,000	0
64-a-2	Waste fractionization facilities, Hanford, Washington	3,700	3,700	0
64-a-3	Special reprocessing facilities	5,500	5,500	0
64-a-4	Additional waste storage facilities, Savannah River, South Carolina	7,700	7,700	0
64-a-5	Additional waste storage facilities, Arco, Idaho	3,400	3,400	0
64-b-1	Additional boiler for heating plant, Hanford, Washington	700	700	0
64-m	General plant projects	11,500	11,500	0
	Total	37,500	37,500	0
Weapons Program				
64-c-1	Weapons production, development, and test installations	10,000	10,000	0
64-c-2	Gas laboratory addition, Lawrence Radiation Laboratory, California	990	990	0
64-c-3	Radiography facility, Sandia Base, New Mexico	275	275	0
64-c-4	Explosive component plant, Mound Laboratory, Miamisburg, Ohio	1,590	1,590	0
64-c-5	Fabrication building addition, Rocky Flats, Colorado	2,140	2,140	0
64-d-1	Theoretical and computations building, Lawrence Radiation Laboratory, California	4,470	4,470	0
64-d-2	Additions to administration and computer buildings, Los Alamos Scientific Laboratory, New Mexico	3,400	3,400	0
64-d-3	Technical area utility improvements, Los Alamos Scientific Laboratory, New Mexico	865	865	0
64-d-4	Steam plant addition, Sandia Base, New Mexico	655	655	0
64-d-5	Test range improvements, Tonopah, Nevada	760	760	0
64-d-6	Development support and test laboratory, ACF plant, Albuquerque, New Mexico	0	0	
64-d-7	Manufacturing standards laboratory, Rocky Flats, Colorado	720	720	0

DOE ARCHIVES

	(In Thousands) FY 1964		
	AEC Submission of 9/28/62	Revised Estimate	Amendments
Training, Education and Information Program			
64-j-1 Addition to biomedical building, Rio Piedras, Puerto Rico Nuclear Center	$ 750	$ 750	$ 0
64-m General plant projects	250	250	0
Total	1,000	1,000	0
Isotopes Development Program			
63-j-2 Marine Products Development Irradiator	600	600	0
Community Program			
64-k-1 Water distribution system, phase II, White Rock, Los Alamos, New Mexico	625	625	0
64-k-2 Classroom additions, Barranca Mesa Elementary School, Los Alamos, New Mexico	224	224	0
64-k-3 Additional water well, Los Alamos, New Mexico	194	194	0
64-m General plant projects	774	774	0
xxx Community disposal project	4,329	4,329	0
Total	6,146	6,146	0
Program Direction and Administration			
Project 64-1-1 Addition to headquarters building, Germantown, Maryland	6,100	0	- 6,100
Project 64-m General plant projects	100	100	0
Total, construction projects	6,200	100	- 6,100
Construction Planning and Design			
Project 64-AE-2 Construction planning and design	5,000	5,000	0
Total Obligations for plant projects	355,451	351,846	- 3,605
Expenditures	310,000	302,000	- 8,000

DOE ARCHIVES

Obligations for Equipment Not Related to Construction Projects

	(In Thousands) FY 1964		
	AEC Submission of 9/28/62	Revised Estimate	Amendments
Program			
Raw Materials	$ 12	$ 12	$ 0
Special Nuclear Materials	28,857	28,857	0
Weapons	68,756	68,756	0
Reactor Development			
Pluto	1,700	700	-1,000 1/
General Reactor Technology	4,500	4,000	- 500 1/
All Other	35,545	35,545	0
Total Reactor Development	41,745	40,245	-1,500
Physical Research			
Low Energy Physics Machines	6,000	6,000	0
All Other Physical Research	38,622	38,622	0
Total Physical Research	44,622	44,622	0
Biology and Medicine	3,600	3,600	0
Training, Education and Information	469	469	0
Isotopes Development	2,525	2,525	0
Civilian Application of Nuclear Explosives	875	875	0
Community	91	91	0
Program Direction and Administration	755	755	0
Total Equipment Obligations	192,307	190,807	-1,500
Equipment Expenditures	195,000	194,000	-1,000
Grand Total Plant and Equipment Obligations	547,758	542,653	-5,105
Grand Total Plant and Equipment Expenditures	505,000	496,000	-9,000

1/ Reductions related to decreases in operating costs.

DOE ARCHIVES

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UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D. C.

October 8, 1962

Dear Mr. Bell:

On September 21, 1962, your staff informed the Commission by telephone of your need to have from the Commission an alternative budget analysis for the fiscal year 1964 which would be based on an expenditure estimate of $2.9 billion. We were also advised in the course of this discussion that the $2.9 billion assumed a stretchout of present commitments for the procurement of uranium concentrates from the domestic sources that would have the effect of deferring $40 million of expenditures presently estimated to be incurred in FY 1964. Your staff indicated that in the event such a stretchout could not be effected, the planning amount would be amended accordingly to $2.940 billion.

Since there is no sound basis at this time for assessing what effect a stretchout would have on 1964 budget estimates, the analysis which we are transmitting herewith assumes no stretchout and is based on an expenditure estimate of $2.940 billion.

DOE ARCHIVES

It should also be noted that the appropriation requested for Plant and Equipment includes $36,000,000 to provide the FY 1964 obligational needs for the Stanford Linear Accelerator Project. You will recall that my letter of September 28 indicated that if the Senate did not restore the House reduction of $60,000,000 for the full funding of this project, it would be necessary to increase our FY 1964 obligational authority by $36,000,000. Since the House action has been sustained, this Amendment becomes necessary. This does not, of course, effect the estimate of expenditures for FY 1964.

In complying with your request, we have used the budget estimates as adjusted by the amendments thereto which were recently transmitted to you, as a base, and have analyzed those activities and projects, and the amounts involved, which would have to be reduced or eliminated in order to meet the $2.940 billion expenditure estimate. This analysis is attached.

While this is submitted in accordance with your request, the Commission has very grave concern over the effect of such an expenditure level on the programs which we believe should be carried out by the Commission in 1964. Because of the relative

inflexibility of a substantial portion of the AEC's total annual budget requirements, it was necessary, in order to meet the Bureau's figure, to make reductions in a number of programs which would entail risks in meeting Defense and other priority national objectives. Of particular note are reductions in the weapons testing, nuclear rocket (Rover), and satellite power source (SNAP) programs. Our program for developing nuclear explosives for civilian purposes would be halved. The amount available for oceanographic research would be less than the level allocated to the Atomic Energy Commission by the Interdepartmental Committee on Oceanography as its share of the National Oceanography Program. The atomic power program would be held back at a time when the Commission's report to the President indicates continued effort in both near term and long term objectives. Plant and equipment projects such as a prototype power reactor, important to the civilian power program, and vital physics accelerators would be eliminated. I am sure that such actions will receive your most serious consideration.

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

Sincerely yours,

/s/ Glenn T. Seaborg

Chairman

DOE ARCHIVES

Honorable David E. Bell
Director, Bureau of the Budget

Enclosure:
As stated

Budget -4

AEC 1095/13

October 11, 1962

COPY NO. 23

ATOMIC ENERGY COMMISSION

ANALYSIS BY PROGRAM OF BUDGET CHANGES FOR FY 1964

Note by the Secretary

The Office of the Controller has requested that the attached letter to the Bureau of the Budget, with enclosure, be circulated for the information of the Commission.

326 US ATOMIC ENERGY COMMISSION
SECRETARIAT
1320
FY 64 Budget

W. B. McCool
Secretary

CLASSIFICATION CANCELLED
DATE 7/5/73
For The Atomic Energy Commission
Jack H Kahn
Jack H. Kahn
Staff Assistant
Division of Classification

Confirmed 2/9/88 Anders

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U. S. Atomic Energy Commission

Analysis of Budget Changes
Under $2.940 Billion Expenditure Level for FY 1964

Operating Expenses
Capital Plant and Equipment

DOE ARCHIVES

October 8, 1962

U. S. Atomic Energy Commission
Analysis by Program of Budget Changes
Under $2.940 Billion Expenditure Level for FY 1964
Operating Expenses Appropriation

	(In Thousands) FY 1964 Estimates		
	Amended AEC Budget	Under $2.940 Billion Expenditure Estimate	Difference
Raw Materials	$ 384,671	$ 384,671	$ 0
Special Nuclear Materials	485,573	484,573	-1,000
Weapons	745,700	689,700	-56,000
Reactor Development			
Civilian Power - Government			
Shippingport	12,920	12,000	-92[illegible]
Seed and Blanket	8,500	5,000	-3,50[illegible]
Post-Construction R&D	5,890	3,890	-2,00[illegible]
Gas Cooled - Other	7,400	7,100	-30[illegible]
All Other	59,770	59,770	[illegible]
Total Civilian Power - Government	94,480	87,760	-6,72[illegible]
Cooperative Power Reactor Demonstration Program	15,000	12,000	-3,000
Rocket Propulsion Reactors (Rover)	129,821	113,021	-16,800
Satellite and Small Power Sources (SNAP)	104,990	102,990	-2,000
General Reactor Technology	64,335	59,335	-5,000
All Other	199,474	199,474	0
Total Reactor Development	608,100	574,580	-33,520
Physical Research			
High Energy Physics			
Accelerator Design Studies	7,000	7,000	0
Other High Energy Physics	85,508	82,708	-2,800
Other Physics and Mathematics	38,501	36,801	-1,700
Chemistry	51,165	49,765	-1,400
Metallurgy and Materials	24,983	24,183	-800
Controlled Thermonuclear	23,750	23,450	-300
Nuclear Science and Engineering Research	1,500	0	-1,500
Total Physical Research	232,407	223,907	-8,500

DOE ARCHIVES

	(In Thousands) FY 1964 Estimates		
	Amended AEC Budget	Under $2.940 Billion Expenditure Estimate	Difference
Biology and Medicine	$ 79,373	$ 76,373	$ -3,000
Training, Education, and Information	17,568	16,568	-1,000
Isotopes Development	10,090	8,990	1,100
Plowshare	19,370	9,970	-9,400
Community	9,579	9,579	0
Program Direction and Administration	69,919	66,919	-3,000
Security Investigations	7,495	6,995	-500
Other Costs	6,800	6,800	0
Total Program Costs	2,676,645	2,559,625	-117,020
Changes in Selected Resources	104,155	51,175	-52,980
Total Obligations	2,780,800	2,610,800	-170,000
Revenues	-28,500	-28,500	0
New Obligational Authority	$2,752,300	$2,582,300	$ -170,000
Expenditures	$2,585,000	$2,481,000	$ -104,000

DOE ARCHIVES

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[redacted]

Analysis of Effects of Reductions to AEC's FY 1964 Budget
Under a $2.940 Billion Expenditure Level
Operating Expenses

	FY 1964 Estimates (In Thousands)		
	Amended AEC Budget	Under $2.940 Billion Expenditure Estimate	Difference
Special Nuclear Materials			
1. Process Development	$ 34,698	$ 33,698	$ -1,000
2. All Other	450,875	450,875	0
Total	$ 485,573	$ 484,573	$ -1,000
1. Process Development	34,698	33,698	-1,000

The reduction would reduce the capability for achieving improved production efficiency. Past process development work has resulted in substantial operating cost savings in addition to providing a sound technological base for the program.

Weapons			
1. Full Scale Tests - Continental (Including Laboratory Participation)	$ 149,200	$ 93,200	$ -56,000
2. All Other	596,500	596,500	0
Total	$ 745,700	$ 689,700	$ -56,000
1. Full Scale Tests - Continental (Including Laboratory Participation)	149,200	93,200	-56,000

DOE ARCHIVES

This reduction would reduce the number of AEC underground tests in half, from about 52 to about 26. It would not be possible to capitalize fully on the substantial potential improvements now in sight as a result of the recently expanded development effort and resumption of testing.

Reactor Development			
1. Civilian Power Reactors - Government			
a. Shippingport	$ 12,920	$ 12,000	$ -920
b. Seed and Blanket	8,500	5,000	-3,500
c. Post Construction R&D	5,890	3,890	-2,000
d. Gas Cooled - Other	7,400	7,100	-300
e. All Other	59,770	59,770	0
Total Civilian Power Reactors - Government	94,480	87,760	-6,720 a/
2. Cooperative Power Reactor Demonstration Program	15,000	12,000	-3,000 b/
3. Rocket Propulsion Reactors (Rover)	129,821	113,021	-16,800
4. Satellite and Small Power Sources (SNAP)	104,990	102,990	-2,000
5. General Reactor Technology	64,335	59,335	-5,000
6. All Other	199,474	199,474	0
Total	$ 608,100	$ 574,580	$ -33,520
1.a. Shippingport	12,920	12,000	-920

This reduction is an arbitrary one to hold this activity in FY 1964 at a lower level in the interest of minimizing expenditure demands in FY 1964.

1.b. Seed and Blanket	8,500	5,000	-3,500

This reduction under this activity is based on not providing funds for a follow-on development effort. Such funds will be required if a follow-on program is approved.

a/ b/ In addition to these reductions in the operating expenses for the civilian atomic power program, there is also eliminated from the plant budget a construction project in the amount of $55 million for a prototype power reactor.

[redacted]

	FY 1964 Estimates (In Thousands)		
	Amended AEC Budget	Under $2.940 Billion Expenditure Estimate	Difference
Reactor Development - continued	$	$	$
1.c. Post Construction R&D.....	5,890	3,890	-2,000

The amount of $2.0 million would be eliminated out of a total of $5.9 million for post construction research and development and operations analysis in Commission-owned power reactors and in privately-owned power reactors. This would mean that the Commission would be unable to take full advantage of capital facilities, in which substantial sums have already been invested, to gain further knowledge on reactor technology with a relatively modest additional expenditure of funds.

1.d. Gas Cooled - Other.....	7,400	7,100	-300

This would be an arbitrary reduction in the planned level of effort for ORNL development of metal clad fuels in the interest of minimizing expenditure demands in FY 1964.

2. Cooperative Power Reactor Demonstration Program.....	15,000	12,000	-3,000

This reduction along with $17.0 million in GSO, would eliminate the proposed additional FY 1964 authorization of $20.0 million to support construction of at least two large power reactors. This would leave enough funds for support of only one power reactor in FY 1964 and would jeopardize AEC's ability to take advantage of other favorable proposals.

DOE ARCHIVES

3. Rocket Propulsion Reactors (Rover).....	129,821	113,021	-16,800

The reduction of $16.8 million includes a reduction of $2.8 million for research and development on supporting technologies, including work on ceramic materials and refractory metal fuel element development, controls and instrumentation, analytical and experimental work to improve reactor performance, and experimental work investigating new concepts. In addition, there is a reduction of $14.0 million which would have to be applied against the estimate of $42.7 million included in the budget for fuel and reactor fabrication of experimental reactors for the NERVA program. This reduction would necessitate elimination of about three of these experimental reactors, and would entail a substantial risk of not being able to meet established schedules for the Reactor in Flight Test (RIFT) program.

Satellite and Small Power Sources (SNAP)	104,990	102,990	-2,000

This reduction would arbitrarily eliminate the amount of $1.0 million for future requirements for radioisotope power units, and as a result, the Commission would not be able to fulfill potential needs for these devices. Also, the amount of $1.0 million would be arbitrarily eliminated from the $3.7 million estimate for General Research and Development on radioisotope power units, thereby drastically reducing supporting R&D on devices currently under development, improving existing concepts, and developing new or advanced concepts.

5. General Reactor Technology.....	64,335	59,335	-5,000

This reduction would hold this important program to essentially the FY 1963 level, and would not permit the required additional effort in support of the space program, particularly in advanced components work, including high temperature liquid metal studies, instrumentation and controls, etc., and advanced materials research and development.

[redacted]

	FY 1964 Estimates (In Thousands)		
	Amended AEC Budget	Under $2.940 Billion Expenditure Estimate	Difference
Physical Research			
1. High Energy Physics			
a. Accelerator Design Studies.....	$ 7,000	$ 7,000	$ 0
b. Other High Energy Physics.....	85,508	82,708	-2,800
2. Other Physics and Mathematics.....	38,501	36,801	-1,700
3. Chemistry.....	51,165	49,765	-1,400
4. Metallurgy and Materials.....	24,983	24,183	-800
5. Controlled Thermonuclear.....	23,750	23,450	-300
6. Nuclear Science and Engineering Research	1,500	0	-1,500
Total.....	$ 232,407	$ 223,907	$ -8,500

1.b. through 5.

These decreases represent arbitrary reductions in the interest of minimizing expenditure demands in FY 1964. These reductions would essentially eliminate funds for new work, since a sizeable portion of the requested increase over FY 1963 represents mortgages in terms of new machines coming into operation, fuel and other start-up costs (e.g., Ames and BNL reactors), and the Transuranium and HFIR programs.

DOE ARCHIVES

6. Nuclear Science and Engineering Research	1,500	0	-1,500

This arbitrary reduction would eliminate this proposed new program and would delay the time for bridging the gap in the so-called "gray" areas between basic and applied research which are not now receiving adequate support.

Biology and Medicine

1. Somatic Effects of Radiation.....	$ 21,308	$ 21,008	$ -300
2. Radiation Genetics.....	5,818	5,618	-200
3. Molecular and Cellular Level Studies....	14,000	13,500	-500
4. Environmental Radiation Studies.....	16,353	15,353	-1,000
5. Radiological and Health Physics and Instrumentation.....	6,000	5,700	-300
6. Nuclear Energy Weapons Effects Studies..	2,045	1,745	-300
7. Selected Beneficial Applications.....	3,305	3,205	-100
Radiation Pasteurization of Foods.....	600	300	-300
All Other.....	9,944	9,944	0
Total.....	$ 79,373	$ 76,373	$ -3,000

1. Somatic Effects of Radiation.....	21,308	21,008	-300

Under this reduction, there would be a general retardation of radiation effects studies, and the growth in offsite research in Toxicity of Radioelements will be slowed down.

2. Radiation Genetics.....	5,818	5,618	-200

This reduction would be primarily in the offsite genetics program and would slow down the proposed radiation botany program.

3. Molecular and Cellular Level Studies....	14,000	13,500	-500

This reduction would affect laboratory and offsite projects in biochemistry, biophysics, and molecular biology. This reduction is considered serious in that it would defer answers to fundamental problems required to understand the mechanism of interaction of radiation with matter. These studies are prerequisite to interpretation of research conducted under other program activities.

[redacted]

	FY 1964 Estimates (In Thousands)		
	Amended AEC Budget	Under $2.940 Billion Expenditure Estimate	Difference
Biology and Medicine - continued	$	$	$
4. Environmental Radiation Studies.....	16,353	15,353	-1,000

This reduction will result in a slowing down in the establishment of gamma field sources for studies in radiation effects on plants and animals. These studies pertain to conditions surrounding AEC facilities. The oceanography program would be reduced to a level of $4.5 million, slightly below the FY 1963 level, which would be less than the AEC share for this program recommended by the Interdepartmental Committee on Oceanography. The reduction in atmospheric radioactivity and fallout studies would impair needed efforts in connection with current testing programs.

5. Radiological and Health Physics and Instrumentation.....	6,000	5,700	-300

This reduction will slow down the program which is needed in order to supply fundamental information and technology which underlie the entire Biology and Medicine Program.

6. Nuclear Energy Weapons Effects Studies..	2,045	1,745	-300

This reduction will slow down the aerial monitoring survey program, and the program for studies in the area of biological and environmental consequences of nuclear war.

7. Selected Beneficial Applications.....	3,305	3,205	-100

This reduction will slow down the planned growth in medical research projects under this category.

DOE ARCHIVES

8. Radiation Pasteurization of Foods.....	600	300	-300

This reduction will permit continuance of this program at a lower level, but will not permit the Commission to carry out the projects at the levels indicated at the recent Congressional hearings as being feasible and desirable.

aining, Education, and Information

1. Equipment Grants.....	$ 2,500	$ 1,500	$ -1,000
2. All Other.....	15,068	15,068	0
Total.....	$ 17,568	$ 16,568	$ -1,000
1. Equipment Grants.....	2,500	1,500	-1,000

This reduction under this activity would hold this program to the same level of funding as FY 1963. This would not permit the Commission to provide the required level of support for engineering schools and undergraduate programs to keep abreast of the increasing number of college students and to provide the science and engineering manpower needed by 1970.

Isotopes Development.....	$ 10,090	$ 8,990	$ -1,100

This arbitrary reduction would be made in the interest of minimizing expenditure demands in FY 1964. This action would slow down the required expansions in the important areas of isotopic power and heat sources development, in radiation pasteurization of foods program, in radioisotope technology development, and in process radiation development.

	FY 1964 Estimates (In Thousands)		
	Amended AEC Budget	Under $2.940 Billion Expenditure Estimate	Difference
Plowshare.....	$ 19,370	$ 9,970	$ -9,400

A reduction of this magnitude would jeopardize AEC's ability to achieve the national objective of developing an excavation capability before the end of FY 1967 and would eliminate any new project aimed at obtaining basic scientific data. While it might be possible to conduct the two excavation projects planned for FY 1964, there would not be sufficient funds to carry out the planned scientific project or to perform advance work on future excavation projects.

Program Direction and Administration.....	$ 69,919	$ 66,919	$ -3,000

The reduction would necessitate holding staffing to the estimated 6/30/63 strength of 5,314. This would not allow increases in staff deemed necessary for direction and control of the expanding research and development programs, including such areas as Rocket Propulsion, Satellite and Small Power Sources, and Peaceful Nuclear Explosives.

Security Investigations.....	$ 7,495	$ 6,995	$ -500

This reduction is related primarily to the change in the Weapons Program as discussed above.

Changes in Selected Resources.....	$ 104,155	$ 51,175	$ -52,980

The reduction of $52,980,000 includes $17,000,000 for cooperative power program discussed above and $35,980,000 related to the other changes in program cost levels.

DOE ARCHIVES

U. S. Atomic Energy Commission
Analysis by Program of Budget Changes
Under $2.940 Billion Expenditure Level for FY 1964
Capital Plant and Equipment

		(In Thousands) FY 1964 Estimates		
		Amended AEC Budget	Under $2.940 Billion Expenditure Estimate	Difference
Plant Obligations				
Program and Project				
Raw Materials				
64-m	General plant projects	$ 25	$ 25	$ 0
Special Nuclear Materials				
64-a-1	Modifications to production and supporting installations	5,000	5,000	0
64-a-2	Waste fractionization facilities, Hanford, Washington	3,700	3,700	0
64-a-3	Special reprocessing facilities	5,500	5,500	0
64-a-4	Additional waste storage facilities, Savannah River, South Carolina	7,700	7,700	0
64-a-5	Additional waste storage facilities, Arco, Idaho	3,400	3,400	0
64-b-1	Additional boiler for heating plant, Hanford, Washington	700	700	0
64-m	General plant projects	11,500	11,500	0
	Total	37,500	37,500	0
Weapons Program				
64-c-1	Weapons production, development, and test installations	10,000	10,000	0
64-c-2	Gas laboratory addition, Lawrence Radiation Laboratory, California	990	990	0
64-c-3	Radiography facility, Sandia Base, New Mexico	275	275	0
64-c-4	Explosive component plant, Mound Laboratory, Miamisburg, Ohio	1,590	1,590	0
64-c-5	Fabrication building addition, Rocky Flats, Colorado	2,140	2,140	0
64-d-1	Theoretical and computations building, Lawrence Radiation Laboratory, California	4,470	4,470	0
64-d-2	Additions to administration and computer buildings, Los Alamos Scientific Laboratory, New Mexico	3,400	3,400	0
64-d-3	Technical area utility improvements, Los Alamos Scientific Laboratory, New Mexico	865	865	0
64-d-4	Steam plant addition, Sandia Base, New Mexico	655	655	0
64-d-5	Test range improvements, Tonopah, Nevada	760	760	0
64-d-6	Development support and test laboratory, ACF plant, Albuquerque, New Mexico	0	0	0
64-d-7	Manufacturing standards laboratory, Rocky Flats, Colorado	720	720	0

DOE ARCHIVES

		(In Thousands) FY 1964 Estimates		
		Amended AEC Budget	Under $2.940 Billion Expenditure Estimate	Difference
Weapons Program - continued				
64-d-8	Instrument maintenance and standards addition, Y-12 plant, Oak Ridge, Tennessee	$ 590	$ 590	$ 0
64-d-9	Addition to development laboratory, Y-12 plant, Oak Ridge, Tennessee	1,700	1,700	0
64-d-10	Base construction, Nevada Test Site	5,000	5,000	0
64-m	General plant projects	13,000	13,000	0
	Total	46,155	46,155	0
Reactor Development Program				
64-e-1	Zero power plutonium reactor, National Reactor Testing Station, Idaho	2,650	0	-2,650
64-e-2	Fast reactor test facility, National Reactor Testing Station, Idaho	12,000	12,000	0
64-e-3	Military compact reactor, National Reactor Testing Station, Idaho	12,000	12,000	0
64-e-4	Safety test engineering plant, National Reactor Testing Station, Idaho	19,400	19,400	0
64-e-5	Power burst facility, National Reactor Testing Station, Idaho	0	0	0
64-e-6	Support facilities for advanced space power systems, National Reactor Testing Station, Idaho	1,800	1,800	0
64-e-7	Expansion of expended core facility, National Reactor Testing Station, Idaho	3,000	3,000	0
64-e-8	Modifications to CANEL facilities, Middletown, Connecticut	1,455	1,455	0
64-e-9	Research and development test plants for Project Rover, Los Alamos Scientific Laboratory, New Mexico and Nevada Test Site	5,000	5,000	0
64-e-10	Modifications to radioactive materials handling facilities, Savannah River, South Carolina	1,000	1,000	0
64-e-11	High temperature lattice testing reactor, Hanford, Washington	2,500	0	-2,500
64-e-12	Modifications to reactor facilities	5,000	5,000	0
64-e-13	Prototype power reactor	55,000	0	-55,000
64-e-14	SNAP development and test facilities, Santa Susana, California	1,400	1,400	0
64-e-15	Thorium-uranium fuel cycle development facility, Oak Ridge National Laboratory, Tennessee	7,275	7,275	0
64-f-1	Road network, National Reactor Testing Station, Idaho	2,740	0	-2,740
64-f-2	Administration building, Argonne National Laboratory, Illinois	0	0	0
64-f-3	Heating plant boiler No. 5, Argonne National Laboratory, Illinois	1,900	1,900	0
64-(AE)-1	Engineering and design for Rover test plant addition at Nevada Test Site	3,000	0	-3,000
64-m	General plant projects	12,000	12,000	0
	Total	149,120	83,230	-65,890

DOE ARCHIVES

		(In Thousands) FY 1964 Estimates		
		Amended AEC Budget	Under $2.940 Billion Expenditure Estimate	Difference
Physical Research Program				
64-g-1	Argonne advanced research reactor, Argonne National Laboratory, Illinois	$25,000	$ 0	$-25,000
64-g-2	Accelerator improvements, Argonne National Laboratory, Illinois	650	650	0
64-g-3	Accelerator and reactor additions and modifications, Brookhaven National Laboratory, New York	2,800	2,800	0
64-g-4	Tandem Van de Graaff facility, Brookhaven National Laboratory, New York	12,000	0	-12,000
64-g-5	Accelerator improvements, Cambridge and Princeton Accelerators	785	785	0
64-g-6	Accelerator improvements, Lawrence Radiation Laboratory, California	850	850	0
64-g-7	Electron linear accelerator facility, Massachusetts Institute of Technology, Cambridge, Massachusetts	4,900	4,900	0
64-g-8	Electron linear accelerator facility, Oak Ridge National Laboratory, Tennessee	5,600	0	-5,600
64-g-9	Low energy accelerator facilities	5,000	0	-5,000
64-h-1	Solid state science building, Argonne National Laboratory, Illinois	0	0	0
64-h-2	Steam plant addition, Brookhaven National Laboratory, New York	850	850	0
64-h-3	Administrative facilities, Brookhaven National Laboratory, New York	0	0	0
64-h-4	Additional experimental buildings for alternating gradient synchrotron, Brookhaven National Laboratory, New York	4,650	4,650	0
64-h-5	Modifications and additions to cafeteria, Lawrence Radiation Laboratory, California	250	250	0
64-m	General plant projects	2,300	2,300	0
62-g-5	Physics building, University of Chicago, Illinois	800	800	0
61-f-7	Linear electron accelerator	36,000	36,000	0
	Total	102,435	54,835	-47,600
Biology and Medicine Program				
64-i-1	Low-level radiation counting facility for clinical research, Brookhaven National Laboratory, New York	430	430	0
64-i-2	Animal quarters and laboratory, Brookhaven National Laboratory, New York	770	770	0
64-i-3	Addition to agricultural research laboratory, Oak Ridge, Tennessee	685	685	0
64-i-4	Molecular biology laboratory, Oak Ridge National Laboratory, Tennessee	330	330	0
64-i-5	Additional animal quarters, Lovelace Foundation, Albuquerque, New Mexico	500	500	0
64-i-6	Atmospheric physics building, Hanford, Washington	350	350	0
64-m	General plant projects	700	700	0
	Total	3,765	3,765	0

DOE ARCHIVES

		(In Thousands) FY 1964 Estimates		
		Amended AEC Budget	Under $2.940 Billion Expenditure Estimate	Difference
Training, Education, and Information Program				
64-j-1	Addition to biomedical building, Rio Piedras, Puerto Rico Nuclear Center	$ 750	$ 750	$ 0
64-m	General plant projects	250	250	0
	Total	1,000	1,000	0
Isotopes Development Program				
63-j-2	Marine Products Development Irradiator	600	600	0
Community Program				
64-k-1	Water distribution system, phase II, White Rock, Los Alamos, New Mexico	625	625	0
64-k-2	Classroom additions, Barranca Mesa Elementary School, Los Alamos, New Mexico	224	224	0
64-k-3	Additional water well, Los Alamos, New Mexico	194	194	0
64-m	General plant projects	774	774	0
xxx	Community disposal project	4,329	4,329	0
	Total	6,146	6,146	0
Program Direction and Administration				
64-l-1	Addition to headquarters building, Germantown, Maryland	0	0	0
64-m	General plant projects	100	100	0
	Total	100	100	0
Construction Planning and Design				
64-AE-2	Construction planning and design	5,000	0	-5,000
	Total Obligations for plant projects	351,846	233,356	-118,490
	Expenditures for plant projects	302,000	279,000	-23,000

DOE ARCHIVES

	(In Thousands) FY 1964 Estimates		
	Amended AEC Budget	Under $2.940 Billion Expenditure Estimate	Difference
Obligations for Equipment Not Related to Construction Projects			
Program			
Raw Materials	$ 12	$ 12	$ 0
Special Nuclear Materials	28,857	28,857	0
Weapons	68,756	64,756	-4,000 1/
Reactor Development			
Merchant Ship - New Concept	300	0	-300
Pluto	700	700	0
General Reactor Technology	4,000	3,500	-500 2/
ORNL Computer	7,600	0	-7,600
All Other	27,645	27,645	0
Total Reactor Development	40,245	31,845	-8,400
Physical Research			
Low Energy Physics Machines	6,000	3,000	-3,000 3/
All Other Physical Research	38,622	38,622	0
Total Physical Research	44,622	41,622	-3,000
Biology and Medicine	3,600	3,600	0
Training, Education, and Information	469	469	0
Isotopes Development	2,525	2,525	0
Civilian Applications of Nuclear Explosives	875	875	0
Community	91	91	0
Program Direction and Administration	755	755	0
Total Equipment Obligations	$190,807	$175,407	$-15,400
Equipment Expenditures	$194,000	$180,000	$-14,000
Grand Total Plant and Equipment Obligations	$542,653	$408,763	$-133,890
Grand Total Plant and Equipment Expenditures	$496,000	$459,000	$-37,000

1/ Reduction related to reductions in test costs.
2/ Reduction related to reduction in operating costs.
3/ Reduction from two machines to one machine.

DOE ARCHIVES

DC FILE

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OCT 9 1962

PERSONAL AND

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BY AUTH
BY memo
A A Sinigalli, OC, DOE 1/28/88

Dear Mr. President:

I recently returned from Europe where I attended the Sixth General Conference of the International Atomic Energy Agency (IAEA) at Vienna, Austria. I should like to pass on to you my impressions of the Conference and some rather significant observations made in other countries that I visited prior to and immediately after the Conference.

The dynamic changes that are taking place in Europe have been reported extensively; nevertheless, these developments are impressive to see first hand. The impact on history which the European community and the NATO alliance are making is well-recognized; but the growth of the peaceful atom in the European community (EURATOM) - while somewhat slower than at first anticipated - is now quickening. In France, one feels an enthusiasm and sense of purpose that has grown even in the year that has passed since I last visited there. There is no doubt that France is embarked resolutely down the road to nuclear independence. Its atomic energy officials are apparently convinced that they will attain the goal ultimately.

I also visited England and Sweden en route to Vienna, and Belgium and Spain on the way home, and I shall report briefly the highlights of those visits, also; but, first, a brief report on the highlights of the Vienna Conference.

Sixth General Conference of the IAEA, Vienna, Austria

The predominant characteristic of the Sixth General Conference was moderation. In nearly every previous Conference - especially the Fourth, in 1960 - the Soviets have been predisposed to engage in somewhat lengthy and fractious invective, sweeping in such provocative issues as nuclear testing and

disarmament and other matters not relevant to the Conference or the IAEA program. This year, however, the remarks and the deportment of the Soviet representative - Professor Vasily Emelyanov - were relatively more moderate than his previous performances. He was not, to be sure, entirely effusive in his references to the United States, but he was definitely more cooperative toward the Agency and cordial in his contacts with me and other members of the U.S. Delegation. I would like to think that our efforts last year to install Dr. Eklund as Director-General, and to upgrade generally the scientific substance of the Agency's role, are now beginning to return modest dividends.

Mr. Molotov was not, of course, in evidence this year as at last year's Conference; but even then his role was wooden and perfunctory.

DOE ARCHIVES

The USSR behavior at the Conference leads me to believe that they were deliberately seeking to avoid any major differences or disruptions to the proceedings. Their position obviously was aimed at the less-developed countries, as was illustrated by their proposal for increasing the IAEA program of technical assistance to "developing countries." Incidentally, this was the first time the USSR has made such a broad offer of technical assistance under the aegis of the IAEA. While I view this as a good sign, it is still too early to determine whether the USSR participation at this particular Conference marks any major change in their attitude toward the IAEA.

I continue to believe that our participation in and support of the Agency is worthwhile. Although the technical program is at times uncertain and generally rudimentary, it is gaining strength in certain technical areas - reactor economics, for example. Moreover, I know of no other comparable international agency which offers such an excellent forum for technical exchanges. I also believe that the Agency serves as a unique supplemental line of communication with the Soviets and Soviet bloc - one that could become critically important if formal communication were to become impaired.

United Kingdom

The U.K. is faced with two politically sensitive problems in regard to its nuclear program. The first of these is their unannounced intention to integrate a nuclear power reactor utilizing slightly enriched uranium, similar to those developed under our own program, into their electrical network. This represents a significant departure from their approach to date, which has been one of concentrating on natural uranium as a reactor fuel. The second problem area that the U.K. faces is their announced intention to integrate with the European community; they are now scheduled to commence negotiations this October to join EURATOM, the community's civilian nuclear arm.

DOE ARCHIVES

In connection with the U.K.'s proposed membership in the European community, I was mindful, during my visit, of Secretary Rusk's letter of September 8th to Secretary McNamara, which stressed the need to ensure against any expansion of our special relationships with the British on military nuclear matters. One of the more important items which I discussed with Sir Roger Makins, Chairman of the U.K. Atomic Energy Authority (UKAEA), was that part of the U.S.-U.K. nuclear military agreement wherein the U.S. receives sizeable quantities of plutonium from the U.K. in exchange for U-235. This agreement now stipulates that the material exchanged must be used only for military purposes; unfortunately, as it turns out, their plutonium is not too suitable for our present types of weapons. We have proposed to the UKAEA to amend the agreement whereby the U.K. would waive these particular rights under the agreement and permit the U.S. to utilize the plutonium it receives for non-military (i.e., to fuel reactors, for which it is suitable) as well as for military purposes. While the matter is still under study, Sir Roger indicated that they might be willing to agree to the U.S. proposal, provided the amount of material under the exchange agreement were reduced. My purpose in reporting this particular discussion is that it points up the need to re-examine the U.S.-U.K. Technical Exchange Agreement, particularly to ascertain whether those provisions in the Agreement with respect to cooperation in weapons development are consistent with our objectives for a multilateral NATO alliance.

Sweden

I visited the Swedish nuclear research establishment at Studsvik and their 65-megawatt power reactor which is housed in a chamber under a rock mountain several miles south of Stockholm. At present, the Swedish nuclear power program is based on the natural uranium, heavy water system in order to be assured of a national supply of fuel, although I am not convinced that the Swedish approach is the right one to be followed from the standpoint of economics.

France

DOE ARCHIVES

One cannot help but be impressed with the great effort the French are devoting to their atomic energy program, as well as the outstanding quality of their work.

I report the following observations, conscious of the policy questions surrounding possible U.S. assistance to the Government of France to advance her nuclear military capability and the arguments opposed to and in favor of such assistance. I am persuaded, from observations made on this trip, that the French will succeed in achieving a nuclear production capability within the next few years. Even though they may be faced with technical, and possibly financial, difficulties which have forced postponement of their original schedule, they are moving ahead vigorously and enthusiastically with the construction of facilities for the production of U-235 at Pierrelatte. En route by air to visit the plutonium production site at Marcoule and the research and development center at Cadarache, we were permitted to fly over Pierrelatte. The aerial view of this gaseous diffusion complex was a highlight of my visit. The buildings appear to be almost complete and are similar in appearance to our facility at Oak Ridge. I was told that they estimate the total cost of this production plant, when completed, to be about $1 billion, with start-up scheduled for 1965-1966.

The French expressed interest in cooperating with the U.S. in the detection of underground nuclear tests. Since this could be useful to the U.S. and there is a considerable amount of unclassified information on this subject which could be made available to them, I propose to explore this matter further with the Department of Defense.

Sec 99110

The most pressing problem confronting the French in their civilian nuclear reactor program is obtaining plutonium for their so-called Rhapsodie fast reactor experiment. Initially, we had suggested that France explore the possibility of obtaining plutonium from the U.K., but the French feel the U.K.'s asking price is prohibitively high. Because of our technical interest in this project and our involvement in the broader EURATOM reactor program with which it is now associated, the Commission is giving consideration to supplying plutonium to the Rhapsodie project, as well as to the more pressing plutonium requirements of the European community.

Spain

DOE ARCHIVES

Nuclear energy may well play an important role in Spain in the supply of electrical power within the immediate future. Faced with increasing electrical demands and diminishing hydroelectric resources (the only reasonable economic source of conventional power), Spain is beginning to turn toward nuclear power. At Moncloa, outside Madrid, Spain has established a small but sound nuclear research program which is aimed at developing a prototype power reactor fueled with natural uranium. They have developed a capacity for the mining and purification of natural uranium. In addition, one of the large electrical companies in Spain has applied for authority to construct a 60,000-kilowatt nuclear central station power plant. At present, a U.S. manufactured boiling-water type reactor is contemplated. This might be followed soon by the construction of several nuclear plants in the 300,000-kilowatt range. Such plants, if acquired from U.S. manufacturers, require the use of enriched U-235 fuel. Spain's ability to proceed with such plants is dependent to a great degree on whether the U.S. would supply enriched uranium in exchange for their uranium ore (this kind of arrangement is commonly referred to as "toll enriching"). I personally feel that a U.S. agreement to toll process the Spanish ore would not only be of immediate benefit to Spain, but also would determine whether U.S., rather than British or French manufacturers, will capture the Spanish market for power reactors. The Commission is now studying ways and means by which toll enrichment might be accomplished.

EURATOM

Perhaps the most vivid impression I gained on the trip was the role which EURATOM is playing in the development of nuclear energy within the European community. I visited the

Belgian and EURATOM Laboratory at Mol, Belgium, where I found much important work in progress. (I had visited another EURATOM laboratory, the Ispra Laboratory, near Milan, Italy, during my trip to Europe a year ago; much important work is also in progress there.) Without question, EURATOM is a dynamic organization which is enabling its member states to do what no one of them could do alone. In discussions with Monsieur Chatenet, President of EURATOM, and members of his staff, I was impressed by the breadth and depth of the research and development program undertaken.

DOE ARCHIVES

EURATOM will be even further strengthened by the entry of the U.K. As I mentioned previously, negotiations are now under way between the U.K. and EURATOM; and while there are many unresolved issues, I feel certain that the U.K. will be an active partner within a few years. You will recall that one of these unresolved issues is the treatment of the classified information and "know-how" that the U.K. has received from this country through our broad military and civil exchange agreements.

Respectfully yours,

(Signed) Glenn T. Seaborg

Glenn T. Seaborg

The President
The White House

Jeanette, Bonnie and Bud Coffin (Bonnie, a high school friend), Clayton and Rita Sheldon (childhood friends), Elmer and Lillian Johnson, Lloyd and Doris Johnson, Sidney and Margie Johnson, Clark and Vicky Johnson, Mrs. Lloyd Wood and Larry Wood, Ethel Clauss and her daughter-in-law and son, Larry and Yoshie Kadota (UCLA friend) attended as guests. (The Johnsons and Ethel Clauss are my first cousins.)

After lunch Holifield and I opened the AEC "Atoms West" exhibit containing an operating 25-watt SNAP-9 device. Mother, Jeanette and I went to the Clark Johnsons for coffee as did the Lloyd, Sid and Elmer Johnsons. I managed to see on TV from San Francisco the climactic game-ending plays which led to the loss of the decisive World Series game by the Giants to the Yankees.

At 8 p.m. I left for Houston on Continental flight no. 56 where I arrived at 1 a.m., Thursday. I stayed at the Shamrock Hotel. The notes on Information Meeting 201 (attached) was held in my absence.

Thursday, October 11, 1962 - Houston

I participated in the Rice University Semi-Centennial Convocation, where I received, along with 26 other scholars, a Medal of Honor, presented by W. O. Milligan.

I had lunch at the home of President and Mrs. Kenneth Pitzer.

I held a press conference in the Faculty Center.

In the evening I spoke at an Associates Dinner, held at the Rice Hotel, on "Partnership of Science with the Arts and Humanities," which was very well received by the estimated crowd of 1,100 people.

I spent the night at the Shamrock Hotel.

Friday, October 12, 1962 - Houston - D.C.

I flew to Baltimore on Delta Flight 876 which left at 8 a.m. and arrived at 1:30 p.m.

I met with Arthur Murphy and Dick Neustadt (both consultants), John Palfrey and Jim Ramey to discuss the Commission reorganization.

Crawford Greenewalt (Chairman of the Board) and Lammot Copeland (new President of duPont) stopped by to pay a courtesy call.

I met with Edward Teller to discuss: 1. a School of Applied Science at Livermore connected with Davis, 2. his possible security breaches in speeches at the Seattle World's Fair and UPI, 3. his help in fundraising for the Lawrence Hall of Science, and 4. the future of underground testing.

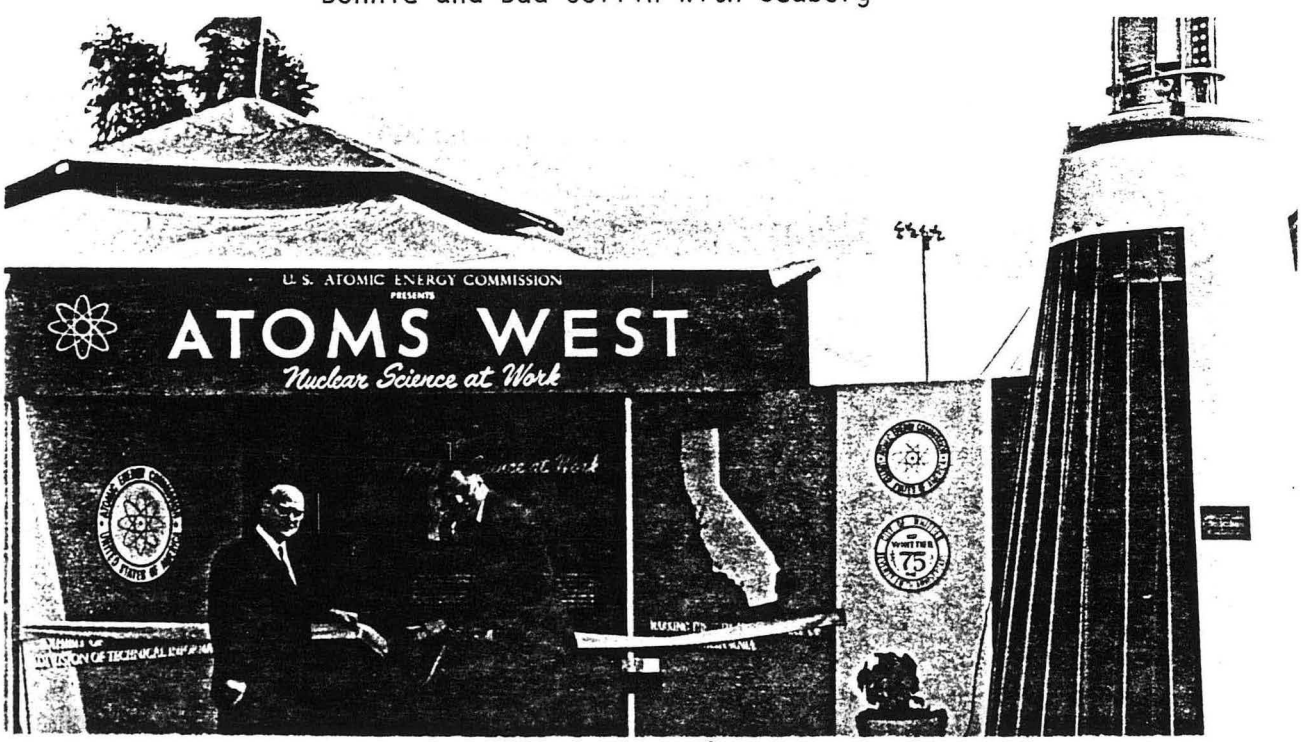
Saturday, October 13, 1962

I spoke at the dedication of the new science center at Georgetown University, "Science and the Humanities: Unity in Diversity," which was well received. Bill Libby, Bill Baker and I received honorary doctor of science degrees. Helen, Pete, Lynne and Steve were there, as well as Hilma Howser, Esther Arnott, Esther Williams, Jim and Alice Robinson, Joan Purcell, Adelaide Gittins, the Robert LeBarons and many from AEC.

I also worked on AEC papers at home.

75th Anniversary of Whittier College, "Atomic Power and Space" and opening of "Atoms West" Exhibit of AEC at Whittier, California, October 10, 1962

Bonnie and Bud Coffin with Seaborg



Seaborg with Congressman Holifield

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

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NOV 86

COPY NO. 15

October 10, 1962

INFORMATION MEETING 201

9:45 a.m., Wednesday, October 10, 1962 - Chairman's Office, D.C.

1. Commissioners' Visit to POLARIS Submarine.

2. Bureau of the Budget Meeting to Discuss Civilian Nuclear Power Study.

Dr. Haworth reported that the meeting is now scheduled for 2:30 p.m., Wednesday, October 17.

3. Briefing on Air Force Five-Year Program Now Rescheduled for 10:00 a.m., Wednesday, October 17.

4. Chairman's Discussion of PLUTO Program.

Dr. Haworth said the Chairman had discussed the program with Dr. Harold Brown and that although no final DoD decision has been made, Dr. Brown will probably recommend that the program be continued at less than an all-out effort probably on the order of $4 million annually, that the Commission's program continue through the Torry II-C tests and then at an AEC-Air Force agreed level.

5. Briefing on the N.S. SAVANNAH Program, 10:30 a.m., Thursday, October 11, A-410, Germantown.

Dr. Haworth noted the briefing will cover a) status report on actions since Friday, October 5, b) presentation by Mr. Robb, and c) consideration of the Commission's directive to the joint staff. The Commissioners agreed that it would be desirable to meet with Mr. Alexander following staff discussions with Mr. Alexander and the briefing tomorrow.

✓ 6. Letter of October 9 to McGeorge Bundy re Uranium Core Procurement Stretch-Out.

Dr. Haworth noted the letter had been sent and the Commissioners said they wished to review the proposed press release. (Johnson-Clark)

7. AEC-DoD Agreement re Effects of Tests.

Dr. Haworth noted he had signed the letter and dispatched it to DoD yesterday.

8. AEC-Air Force-NASA Agreement re Management of Advanced SNAP Systems Program.

Mr. Hollingsworth said Mr. Webb plans to sign the agreement today.

9. Rescheduling of Bluegill Event.

Dr. Haworth noted that the rescheduling to October 13 had been cleared with the White House and would be announced at noon today.

10. Letter Report to Mr. Bundy re Ripple II Event.

DMA will review the proposed letter with Dr. Haworth today.

11. Chairman Holifield's October 5 Letter re Speech by Dr. Teller.

Dr. Haworth said the General Manager had informed him that in reviewing the speech he had found nothing of concern.

12. Bureau of the Budget Hearings on AEC Fiscal Year 1964 Budget Estimates.

The Commissioners requested information on the schedule of hearings and Mr. Ramey said he wished to attend as time allowed.

13. Proposed Agreement with the State of New York.

Commissioners Ramey and Palfrey and staff are meeting with Mr. Oliver Townsend and other New York representatives this morning to discuss the draft agreement. The Commissioners discussed briefly the question of jurisdiction, the possibility of inclusion of a limited exemption article, etc.

14. Labor Negotiations for K-25, Y-25 and Research Lab at Paducah.

Mr. Hollingsworth reported briefly on the negotiation on the October 15 reopener and said the matter of hospitalization and medical plan terms would probably present no problems but there might be difficulties on the wage rates.

15. Report on Antarctica Reactor Incident (McMurdo Sound).

Mr. Hollingsworth said preliminary reports indicate no release of radioactivity, no injuries and that the specific cause is as yet undetermined. Upon receipt of further information, an AEC-Navy press release will be issued. The Joint Committee and the National Science Foundation are to be notified. (Pittman)

16. AEC Exhibit at Bangkok, Thailand, November 18, 1962.

Mr. Hollingsworth noted the opening of the exhibit on November 18 and the desirability of a Commissioner attending. (Wells-Secy)

17. Standard Contract Articles re Safety, Health and Fire Protection.

The Commissioners had no objection to the General Manager's recommendation that standard contract articles re safety, health and fire protection will no longer be included in certain equipment procurement contracts, contracts for basic research at universities, etc., and that they continue to be included in contracts for operation of government-owned facilities, contracts for use of special nuclear material or by-product material, etc. Mr. Hennessey noted that the exempted contracts would require the contractor to comply with all state laws in the matter of public health and safety.

18. AEC 1062/3 - STUDY OF THE RESTRICTED DATA CATEGORY.

The Commissioners requested early consideration and circulation of the paper in draft form if necessary (the General Manager's recommendation as contained in the subject paper will be distributed to the Commissioners today).

19. Procedures for Commission Consideration of Discussion Papers.

The Commissioners requested recommendations. (GM)

PRESENT		DISTRIBUTION
Dr. Haworth	Mr. Hollingsworth	Commissioners
Mr. Ramey	Mr. Hennessey	General Manager
Mr. Palfrey	Mr. Brown	General Counsel
	Mr. McCool	Secretary

Sunday, October 14, 1962

Helen, Pete, Lynne, Dave, Steve, Eric and I attended the University of California Alumni lunch at the Statler Hotel, where Chancellor Ed Strong, Pete Newell, Marv Levy and Dick Erickson spoke.

I worked on AEC papers and finished working on the high school book, Man-Made Transuranium Elements, which will be ready this week to send to the publisher.

Monday, October 15, 1962 - D.C.

From 9:30 a.m. to 1 p.m. I attended a meeting of PSAC. The items discussed were: high altitude testing, recipients of U.S. Medal of Science proposed by the National Academy of Sciences, the ACDA research program, etc.

I had lunch with PSAC members at the White House Mess.

I signed the agreement between the Atomic Energy Commission and the State of New York transferring certain regulatory functions to New York. This followed a dispute as to Federal and State jurisdiction over some of the functions which has not yet been resolved. An article in the agreement (VII) reserves this for future determination. Governor Nelson Rockefeller wanted it signed today. He plans to sign it tonight.

At 3 p.m. I presided over Commission Meeting 1880 (action summary attached). We discussed a new plan, agreeable to universities, for non-Soviet alien visitors and temporary employees to work in AEC laboratories and AEC-supported laboratories. At present Ramey is unwilling to agree to this modification of the old rules.

I received the report of the 81st Meeting of the General Advisory Committee, which was held in Washington October 4th to the 6th.

Tuesday, October 16, 1962 - D.C.

I met with PSAC again this morning. Lee Haworth made a presentation on dilemmas facing the AEC on the future high energy accelerator building program. The problem is that there are three big requests: 1. a 10 BeV high current machine for MURA, 2. a ~100 BeV machine for Berkeley, and 3. a >300 BeV national machine.

I had lunch with Algie Wells to discuss 1. the program aftermath of contacts made on my European trip and 2. his future. The return of John Hall from his IAEA post next spring poses a problem as Wells has acted as Hall's replacement here.

At 4 p.m. I presided over Information Meeting 203 (notes attached). We discussed the fourth try of BLUEGILL which failed at 3:30 a.m. this morning at Johnston Island due to the failure of the Thor missile. We also discussed management of the SNAP-50 program. After all, a final agreement between AEC, DOD and NASA has not been reached. Webb is still negotiating changes to make it appear as a strictly developmental project.

I met with Harry Smyth and John Hall to discuss: 1. a possible new USSR-US exchange agreement, which might involve Emelyanov coming to the U.S. or a trip by me to the USSR, and 2. the safeguards problem as it involves IAEA and the proposed Tarapur (Indian) reactor. The State Department must take a stand on the issue of whether the U.S. will insist on IAEA safeguards for reactors built with U.S. support or under arrangements with the U.S.

I sent a letter to the Bureau of the Budget (copy attached) giving a progress report on our study of the single administrator and other possible revised AEC administrative arrangements.

OPTIONAL FORM NO. 10
5010-104
UNITED STATES GOVERNMENT

Memorandum

UNCL. BY DOE
NOV 86

TO : A. R. Luedecke, General Manager

DATE: October 15, 1962

Approved _____
A. R. Luedecke

FROM : W. B. McCool, Secretary Original signed W. B. McCool

Date _____

SUBJECT: ACTION SUMMARY OF MEETING 1880, MONDAY, OCTOBER 15, 1962
3:05 P.M., ROOM 1113-B, D. C. OFFICE

SYMBOL: SECY:JCH

Commission Business

1. AEC 116/48 - Classification of NTS Shot Information

Approved. (Marshall)

The Commission requested that the White House be informally advised of this action. (Marshall)

2. AEC 328/24 - Downgrading the Classification of Production and Allocation Rates of Enriched Uranium, and AEC 328/25 - Addendum to AEC 328/24 - Downgrading the Classification of Production and Allocation Rates of Enriched Uranium

Approved, as revised. (Marshall)

The Chairman requested the DOD be afforded the opportunity to comment on the downgrading actions. (Marshall)

You said that you would not dispatch the letters to the JCAE and the GAC until DOD comments have been received.

3. AEC 751/328 - Proposed Agreement with Italy for Reprocessing and Refabrication of Elk River Fuel Elements

Approved, as revised. (Wells)

The Commission requested the letter to the JCAE indicate the material to be leased, its enrichment, and the extent of cost to the AEC. (Wells)

4. AEC 751/329 - US-EURATOM Contracts of Sale of Enriched Uranium and Purchase of Special Nuclear Material for Senn Project

Approved. (Wells)

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

Discussed.

The Commission requested a redefinition of Group A-2 contracts for review by Commissioner Ramey. (Traynor)

I will reschedule this matter next week.

6. AEC 1120 - Annual Legislative Program for 1963, and AEC 1120/2 - Addendum to AEC 1120 - Annual Legislative Program

Discussed.

Item of Information

USSR Announcement Re Firing Multi-stage Rockets Into the Pacific

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

COPY NO. 15

October 16, 1962

UNCL. BY DOE
NOV 86

INFORMATION MEETING 203

4:00 p.m., Tuesday, October 16, 1962 - Chairman's Office, D. C.

1. Bluegill Event.

The General Manager reported on the event today and the tentative reschedule. The Chairman requested preparation of an early note to Mr. Bundy. (Betts)

2. US-USSR Exchange Agreement (Draft Memorandum from Professor Emelyanov).

The Chairman requested early consideration. (Wells)

3. AEC-Air Force-NASA Agreement re Management of SNAP-50 Spur Systems Program.

The Commissioners discussed the alternate language suggested in Mr. Webb's October 12 letter and requested further discussion with NASA. (GM)

4. November 16, 1962 Luncheon Meeting of Committee on Atomic Energy of the National Chamber of Commerce.

The Chairman said he hoped he and other Commissioners could attend.

5. Secretary of State Telegram to American Embassy, Brussels re Security Visit by JAIEG.

Noted.

6. Commission Directive re N.S. SAVANNAH Operations.

The Commissioners agreed the ACRS should be given a copy of the directive informally through Mr. Price and noted that it is an internal document. (Price-Secy)

7. GAC Letter Report on the 81st Meeting.

Noted.

8. Letter Report to the Bureau of the Budget re Research and Development.

The Commissioners discussed briefly improvement of the report but agreed that in view of the requirement for transmittal tomorrow, it should be sent as written. (Brown)

9. Planning Calendar for Fiscal Year 1963.

The Commissioners requested preparation of a planning calendar for Fiscal 1963, identifying major items of upcoming business for Commission consideration. (GM, DR, Secy)

10. October 22 NEWSWEEK Article re Sales of Nuclear Submarines to France.

Mr. Brown noted the article in the current issue of NEWSWEEK and the possibility of a follow-on article by John Finney, NEW YORK TIMES.

11. Ditchdigger Device Test.

The Commissioners accepted the General Manager's recommendation that this event not be scheduled.

12. Intelligence Report.

13. Senator Anderson's News Letter Reference to the President's Visit to Rover Sites.

Noted.

14. Dedication of the Hallam Reactor, April 1963.

The Commissioners suggested the Governor write the White House directly.

15. Visit to NTS Rover Test Site by Mr. Perrin.

The Commissioners requested discussion with the White House staff and suggested discussion also of a visit by newsmen.

16. Commission Briefing on Missile Vulnerability.

The General Manager recommended a briefing and the Commissioners agreed and suggested consideration of DoD participation. (DMA-Secy)

17. October 17 Visit of Senator Kuchel and Representative Ball to Rocketdyne.

The Commissioners had no objection.

18. Ninth Inning Abort.
Observed with dismay.

PRESENT

Dr. Seaborg	Gen. Luedecke
Dr. Haworth	Mr. Ferguson
Mr. Palfrey	Mr. Brown
Mr. Ramey	Mr. McCool

DISTRIBUTION

Commissioners
General Manager
General Counsel
Secretary

W. B. McCool
Secretary

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

GT-FILE

UNCL. BY DOE
NOV 86

October 16, 1962

OFFICE OF THE CHAIRMAN

Dear Roger:

Last Spring, the five members of the Atomic Energy Commission expressed dissatisfaction with the Commission form of organization and recommended the establishment of a single Administrator. This summer, the Joint Committee on Atomic Energy indicated that it intended to hold hearings of its own on AEC organization at the beginning of 1963. In September, after Commissioners Graham and Olson left the Commission and Mr. Ramey and Mr. Palfrey joined it, the subject of reorganization was reviewed again and it was decided to proceed with an intensive study this fall and to submit a report in December. To assist us, we have asked Professor Richard Neustadt of Columbia University, Dr. James Fisk of Bell Laboratories, and Mr. Arthur Murphy, 20 Exchange Place, New York, N. Y., to act as consultants. The purpose of this letter is to provide an interim report on the Commission's examination of the question.

The Commission continues to maintain the position that greater centralization of operational authority is desirable, but is not at present wedded to one particular administrative device to accomplish this purpose. It considers the question of reorganization to be a more complex assignment than that of simply replacing a five-man Commission by a single Administrator. Accordingly, it is exploring a variety of organizational possibilities.

You are already familiar with some of the considerations that led the Commission to conclude last spring that the present form of organization was not satisfactory. In terms of internal operations, diffusion of responsibility and delay in the decisional process were observed as characteristic if not inherent drawbacks in the direction of the atomic enterprise by a body of five Commissioners.

The Commissioners were also disturbed about their increasing involvement in day-to-day operations, rather than broad policy matters, which tended to produce undesirable layering, clearances, concurrences, and decisions by compromise. This detailed involvement is not a necessary consequence of the Commission form of organization, but it is a possible consequence, particularly with the close surveillance of the Joint Committee and the Commissioners' responsibility to keep it fully and currently informed.

It was further apparent, after fifteen years' experience, that some of the considerations in 1946 that lay behind the establishment of a Commission form of organization were no longer so compelling. For example, there may be less concern today over the concentration of power over atomic weapons in a single director of atomic energy, in view of the present arrangements for handling weapons requirements, weapons production, custody and dispersal.

It is the view of the present Commission that the particular form of organizational change should not merely reflect internal considerations of administrative efficiency but should also be related to the current state of the Atomic Energy enterprise in the Government as a whole, so as to contribute to the overall coordination of policies and programs relating to atomic energy. The Commission form of organization was originally regarded as desirable, in part, because it permitted a breadth of background and capabilities to be brought to bear, at the top level, on a wide range of unexplored and significant policy questions. Major policy issues remain today, but those that are paramount are likely to involve other agencies of the Government and are ultimately resolved at the White House level with the joint participation of the AEC, the Department of State, the Department of Defense, NASA, or other Federal agencies.

By statute, the Chairman is the spokesman of the AEC, although each member is given equal responsibility and authority in Commission decisions and actions. Also, as a matter of practice, and sometimes as a result of statutes, (e.g., the National Aeronautics and Space Council) the Chairman has become the AEC representative on a variety of Committees. On such occasions, it is often not practicable or desirable to have the AEC represented by more than one member. Members of the Commission have concluded that the Chairman thus becomes in practice considerably more than the first among equals, however successful he has been in keeping the other Commissioners informed of developments at these meetings, and however conscientious he has been in obtaining the views of the Commission on policy questions in advance.

The present Commission, while observing shortcomings in the present organizational structure, is not prepared to conclude that there have not been benefits derived from it. The range of responsibility under the 1946 Act was wide, and under the Act of 1954 this range was further enlarged. The combination of military and civilian concerns, of production, research and development, promotion and regulation, the continuing questions of security, safety, and civilian control, and the involvement in the wide ramifications of atomic energy in international and defense activities have raised policy issues of a kind that have lent themselves to commission deliberation and resolution.

The AEC has therefore felt that in exploring organizational alternatives that would provide greater centralization of authority, it should include those that might also preserve some of the characteristics of the Commission mode of operation. The following are illustrative of the approaches to reorganization that have been under consideration:

One possibility would be to consider whether shortcomings observed in the Commission's operations are inherent, or whether they could be corrected by possible reallocations of function and responsibility within the existing five-man Commission, including greater statutory authority for the Chairman. For example, the Chairman could be designated the Chief Executive Officer and the four other Commissioners given general areas of supervision, but directed to sit with the Chairman as a Commission of five on major matters of policy.

Another approach would be to consider whether the shortcomings were the product of the size of the Commission rather than of the Commission system itself. Commissions of five or more members, desirable for a regulatory agency, may be less effective than a smaller group of three Commissioners in an agency such as this, where the operational and promotional activities overshadow the regulatory responsibilities. Given a Commission of three rather than five members, it should be noted that with an enlargement of the statutory responsibility of the Chairman, the two remaining Commissioners would tend to become his deputies.

A third possibility would be to abandon the concept of a Commission form of organization for the conduct of atomic energy affairs by replacing the Commission with a single Administrator, but at the same time to establish an inter-agency Atomic Energy Council to coordinate atomic energy activities and provide centralized planning similar to the National Aeronautics and Space Council of NASA.

With or without such a Council, there are a number of possible arrangements involving the use of a single administrator that could be devised. The reorganization could establish an Administrator and a Deputy Administrator in place of the Commission, and anywhere from one to three Associate Administrators at the second level.

The arrangement most closely preserving the present organizational structure at the General Manager's level and below would be to have two Associate Administrators: one an Associate Administrator for Operations, who might fulfill many of the functions of the present General Manager; and an Associate Administrator for Regulation, who would resemble the present Director of Regulation. This arrangement would preserve the present organizational separation of the regulatory and operating functions.

Another arrangement would be to provide for a single Associate Administrator, under the Administrator and his Deputy, with immediate supervision of the operational, promotional and regulatory activities. NASA, for example, has a single Associate Administrator with a comparable range of supervision, but NASA does not have AEC's regulatory responsibilities.

One could also establish three Associate Administrators with a somewhat different division of functions; one concerned with military applications, and research and development; another with production of material; and a third with regulation. Other divisions of function could be devised.

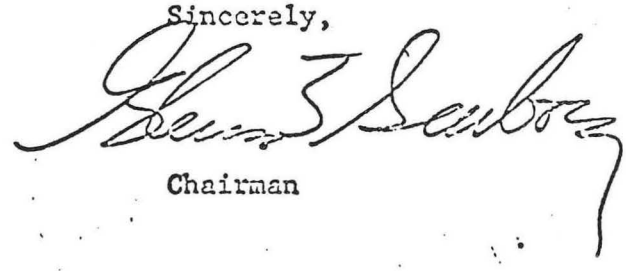
There have also been suggestions in the past that the regulatory aspect of the AEC operation might be entirely separated and an independent regulatory Commission created somewhat along the lines of the Federal Aviation Agency and the Civil Aeronautics Board. While the Commission sees merit in this arrangement ultimately, it believes that it would be premature at present.

The subject of the Commission's form of organization has been the subject of considerable study since 1945 by the Congress and by the Executive Branch. In 1954, there was a spirited debate in Congress over the proposal to make the Chairman the "principal officer" of the Commission, which included extensive discussion of the relative merits of a Commission and a single Administrator.

It should be recognized that there are indications that any consideration by the Joint Committee and the Congress of AEC organizational changes may also involve measures to enlarge the power of the Joint Committee in such ways as increased authorization power over AEC appropriations.

All of these factors indicate that a thorough study of the question of reorganization should be conducted this fall, and a further report issued in December.

Sincerely,



Chairman

Mr. Roger W. Jones
Senior Consultant
Bureau of the Budget
Washington 25, D. C.

Wednesday, October 17, 1962 - D.C.

General Ferguson (Air Force) briefed the Commission on the Air Force five-year space program, especially as it applies to nuclear energy.

Removed pending review by other agencies.

The Commissioners met at the Bureau of the Budget to hear Department of Interior, Federal Power Commission, Office of Science & Technology and the Office of Economic Advisors reactions to our nuclear power report to the President. The main criticism is that we have placed too much emphasis on the country's running out of fossil fuel (which apparently won't happen for over 100 years) and not enough on economics.

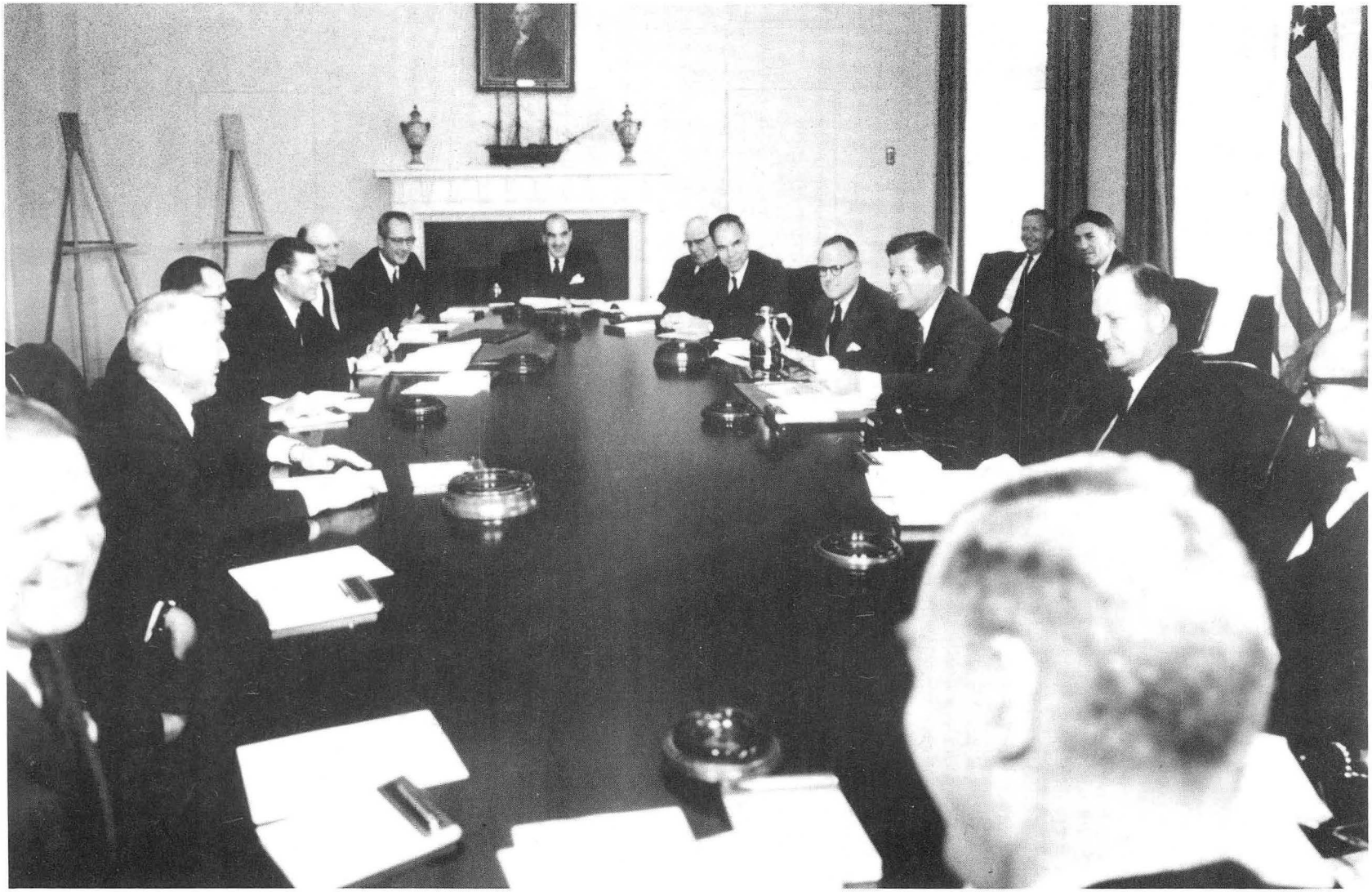
Dr. Smyth called in connection with personnel matters in relation to the IAEA. We discussed in general terms Mr. Hall's return to the AEC and a replacement for him in Vienna. Also, we mentioned briefly the assignment of Bill Yeomans to the U.S. Mission to the IAEA, and the understanding that would be in effect that, upon his return to the AEC, he would have his same, or better, job. Smyth feels it is very important that there be established a policy in the matter of assignment of our people when they return from Vienna, as well as from our other overseas offices. Also, he said he feels it is important that pressure be extended on AEC contractors to release men to the IAEA, with the assurance that they would not be sacrificing their futures. Smyth said he has talked with Carl Thomas regarding his own responsibilities in the State Department and was somewhat surprised to find that Thomas is putting a rather narrow construction on his job. Therefore, upon Cleveland's return from a trip, he will take up the whole matter with Cleveland and Dr. Ragnor Rollefson (State Department Science Advisor).

I wrote to my mother enclosing many items from my trip to Sweden, which I think she will find of interest.

I attended a dinner given for me by Dr. James Shannon at the Naval Officers Club in Bethesda. Later, at the Clinic Center Auditorium at the National Institutes of Health, I gave a lecture on "Status of the Transuranium Elements." It was well received by a good crowd. After the lecture, a reception was held.

Thursday, October 18, 1962 - D.C.

Removed pending review by other agencies.



Cabinet Meeting, The White House, October 18, 1962

L to R: James Webb (Director of NASA), J. Edward Day (Postmaster General), Ted Sorensen, Robert S. McNamara (Secretary of Defense), Don Hornig, William Wirtz (Secretary of Labor), Anthony J. Celebreeze (Secretary, HEW), Luther H. Hodges (Secretary of Commerce), Seaborg, (Unknown), President John F. Kennedy, Douglas Dillon (Secretary of the Treasury), John Carver (Undersecretary of Interior), David Bell (Director BOB). Behind Dillon: Rajeeb Halaby (Administrator, FAA)

Removed pending review by other agencies .

At 11 a.m. representatives of the Martin Company gave the Commission a briefing on isotopic power (SNAP) devices and future requirements. We need a larger production of Pu^{238} and Cm^{244} and the Commission will look into this.

I had lunch with Palfrey at the Roger Smith Hotel.

At 2:30 p.m. I met with Dr. Morton J. Klein (Assistant Director of Chemistry Research) and Dr. Charles Hersh (Manager of Energy Research) of Armour Research Foundation. Following their meeting with me in July they have discussed with Kaufman and Commander Prosser of the Division of Reactor Development the possibility of support for a project of developing a thermal generative cell utilizing a nuclear reactor.

Removed pending review by other agencies

Friday, October 19, 1962 - D.C.

Roger Jones of the BOB called to say he has received my letter of October 16th and he and Bell have talked with the White House in terms of their sense of timing on the AEC reorganization. The White House came up with the following schedule, which will call for an acceleration of our program: 1. by November 15th we should have a clear fix on the general direction AEC is to take, 2. a general review of individual items are to be made between November 15th and Thanksgiving (November 22nd) and 3. between November 20th and December 20th, do any further work that needs to be done. This will mean moving a little faster to get some of the alternatives settled before November 15th.

At 10:20 a.m. I presided over Information Meeting 204 (notes attached).

At 2:20 p.m. I presided over Commission Meeting 1881 (action summary attached). The Commission approved draft legislation, to go to BOB for approval, for the

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

V. Early

UNCL. BY DOE
NOV 86

COPY NO. 15

October 19, 1962

INFORMATION MEETING 204

10:20 a.m., Friday, October 19, 1962 - Chairman's Office, D. C.

1. Fiscal 1964 Budget Planning.

The Chairman reported that at the Cabinet meeting yesterday, estimates below the BoB planning figure were requested. The Chairman requested submission of comparative fiscal 1964 and 1963 figures for Commission consideration in response to this request. (Abbadessa)

2. Legislative Program for 1963.

The Chairman noted the request at the Cabinet meeting for early submission. (Hennessey)

3. Personnel Transfer to IAEA.

The Chairman requested a recommendation. (GM)

4. Commission Meeting Schedule (Germantown-D.C.).

The Commissioners confirmed their previous request that Commission meetings for the transaction of planned business be scheduled for 9:45 a.m., Wednesdays in Germantown and that the schedule of Germantown-D.C. operations include schedule of Commissioners' business in Germantown on Wednesdays and Thursdays. (GM-Secy)

5. Improved Communications.

The Chairman commented briefly on the Commissioners' desire to improve communications between the Commission, General Manager, and the staff, and directed that efforts be made to accomplish this objective to the extent feasible consistent with the nature of the document or information involved. The General Manager was invited to have a member of his personal staff routinely attend Information Meetings with him. The Commissioners noted that the General Manager may also, on occasion, wish to bring with him a Senior Member of his staff, such as an Assistant General Manager, recognizing, of course, that it may not always be feasible to spare them from their other duties. (GM-Brown-Secy)

6. Production of Isotopes for Use in the Space Satellite Program.

The Chairman noted the Martin-Marietta briefing comments yesterday with regard to the need for Plutonium 238 and other isotopes for the planned program and requested consideration of production planning. (Aebersold)

7. NTS Los Alamos Event Scheduled for Today.

8. Sir William Penney's Request for Information re Effects of High Altitude Nuclear Tests.

The Chairman noted Sir William Penney's request for information to use in his forthcoming appearance before the House of Commons. Dr. Haworth and Mr. Brown will review a letter response.

9. Draft Press Release re Buy-Back of Plutonium from Foreign Reactors.

The Chairman said Congressman Holifield thought it desirable to go ahead and Dr. Wilson said he would discuss the matter with BoB representatives.

10. Consultant Contract for Mr. Arthur Murphy.

The General Manager noted the arrangements are proceeding.

11. President's Memorandum re Contracts with Small Business.

The Chairman requested a report. (Vinciguerra)

12. October 29 Dedication of Plutonium Laboratory at Apollo, Pennsylvania.

The Chairman noted the invitation for a Commissioner to attend the ceremonies and Dr. Wilson said he would attempt to fit it into his schedule.

13. AEC Representative to Naval War College - 1963-64.

The General Manager noted the matter is under consideration.

14. Inauguration of Mr. Elvis Stahr as President of University of Indiana.

Dr. Haworth noted that he planned to attend.

15. Current Cables on NATO, Exchange of Information, Sale of Spanish Uranium to India, and Other Matters.

Mr. Brown noted the cables will be circulated.

16. Agenda for the Week of October 22, 1962.

Approved as revised. (Secy)

17. Letter to Ambassador Beale re Cooperation with Australians on the PLOWSHARE Program.

The Chairman requested review of the proposed letter by the Commissioners and Dr. Haworth commented he thought the matter should be discussed with White House staff. (Brown)

18. Letter to Secretary of Defense re PLUTO Program.

The Commissioners said they would reconsider a new draft.

19. Personnel Appointment.

The Commissioners suggested this matter be taken up at the Monday morning Information Meeting. (GM)

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

W. B. McCool
Secretary

5010-104

UNITED STATES GOVERNMENT

Memorandum

UNCL. BY DOE
NOV 86

TO : A. R. Luedecke, General Manager

DATE: October 22, 1962

Approved _____
A. R. Luedecke

FROM : W. B. McCool, Secretary Signed signed W. B. McCool

Date _____

SUBJECT: ACTION SUMMARY OF MEETING 1881, FRIDAY, OCTOBER 19, 1962
2:20 P.M., ROOM 1113-B, D. C. OFFICE

SYMBOL: SECY:JCH

Commission Business

1. AEC 1037/16 - AEC Policy on Exchanges with Soviet Bloc

Approved, as revised. (Wells)

The Commission requested that the phrase "all such AEC exchanges" be used in subparagraphs 24a (2), (3), and (4). The Commission also requested that subparagraph 24a (3) be revised as follows:

> "3. The principle of reciprocity be obtained in all such AEC exchanges except when it is determined by the approving authority as set forth below that it is in the national interest to waive reciprocity;"

The Chairman requested that paragraph 24b (2)(c) be revised to include the exception noted in paragraph 18.

The Commission noted that with regard to university contracts the staff should negotiate a provision whereby the AEC may issue a revised list of Soviet Bloc or other countries and in consultation with the university revise casual visitor controls if required by national policy.

The Commission requested further review of the "open-end" problem in the light of the desirability of reference to additional specific items. (Wells)

2. AEC 1120/1 - Private Ownership and AEC Sale of Special Nuclear Material in the United States, and AEC 1120/4 - Addendum to AEC 1120/1 - Private Ownership and AEC Sale of Special Nuclear Material in the United States

Approved, as revised, subject to Commission review of the legislative analysis. (Hennessey/Fine)

The Commission requested that reference be made to the following matters in the legislative history:

a. In the establishment of sales prices for SNM, the Commission expects to follow the policy of full cost recovery;

b. The charge for SNM consumed in a facility licensed under Section 104 should be equivalent to the going lease rate for the material; and

c. Estimates of AEC expenses for plutonium and U-233 Buy-Back. (Hennessey/Fine)

Commissioner Ramey requested further review of the justification and legislative history on the proposed article regarding acquisition of SNM. (Hennessey/Fine)

Commissioner Haworth requested an appropriate reference to toll processing in the letter to the JCAE. (Hennessey/Fine)

Commissioner Ramey also requested further review of the effect of toll processing on the proposed stretch-out program. (Fine/Baranowski)

3. AEC 1062/8 - Study of the Restricted Data Category

Deferred.

The Commission requested consideration of alternate recommendations. (Marshall)

4. AEC 1120/3 - Private Bill for Reimbursement of E. Gray Beasley

Approved. (Wells)

5. AEC 1120 - Annual Legislative Program for 1963

Approved, as revised. (Hennessey)

6. AEC 1122 - AEC Position on Cooperation in Industrial Development Efforts of Communities

Deferred.

I have scheduled this matter for consideration on Wednesday, October 24. (Secretary)

Item of Information

1. NTS Shot

2. Exposure Incident in Texas

private ownership of nuclear fuel (optional immediately, compulsory by 1973), plutonium buy-back and the toll enriching of uranium. We discussed changing the extent of restricted data, as requested by the NSC Standing Committee, so as to streamline the transfer of information by the Department of Defense to NATO; the present involvement of the AEC and the JCAE is cumbersome to DOD. The changes will greatly reduce the AEC role and will arouse the ire of the JCAE. We also discussed rules for visits of Soviet bloc aliens to AEC-supported installations and adopted regulations more satisfactory to the universities.

Henry Traynor and Chuck Reichardt, AEC representatives on a CIA Board, briefed me on the MRBM and IRBM buildup in Cuba, as detected by U-2 flights. This matter will come to a head this weekend.

Jerry Johnson called and said that he talked with Gilpatric earlier today concerning "the submarine in question," and Gilpatric asked him to see me and bring me up to date. He will come over next Monday. He said that no actions have been taken, but a paper is being developed which will be circulated to AEC and State before going forward. He said all this is taking time, and the project is being done on a rather slow basis. The present situation is that nothing is different from what we have been given to understand earlier.

Saturday, October 20, 1962 - D.C.

In the morning I worked in the office and in the afternoon at home on AEC papers. This morning a high altitude test went successfully at Johnston Island.

Sunday, October 21, 1962

I worked on my article, "Synthetic Elements III," for Scientific American. All our family, except Peter, went on a picnic in Lubber Run Park in Arlington with the Robert Prices, Jim and Alice Robinson, Esther Williams, Esther Arnott, Hilma Howser and Adelaide Gittins.

Monday, October 22, 1962 - D.C.

At 10:30 a.m. I presided over Information Meeting 205 (notes attached). We discussed a telegram from Dr. Van Allen to Dr. Haworth which claimed proof that the STARFISH shot did not add as many electrons to the middle (i.e. higher) part of the lower Van Allen Belt as thought; an order of magnitude less.

I went to Bethesda Naval Hospital where Dr. Osborn, head of plastic surgery, opened a sebaceous cyst on the back of my neck-shoulder, which had become infected.

At 2 p.m. I met with Joseph Volpe who was interested in two matters: 1. He asked about the status of the possibility of Oppenheimer's having his eligibility for government service reinstated. I told him that this continues to be under broad investigation within the Administration. 2. He wondered whether any progress has been made with respect to the NSC document that Lilienthal wrote me about which he wants to use in connection with his forthcoming lectures at Princeton and their subsequent publication. Volpe pointed out that in, Men and Decisions, a recent book by Strauss, similar letters were published. I told him that if this is true, it might establish a precedent that might be helpful in getting the Lilienthal document cleared. I said I will look into it again.

I was further briefed by Reichardt on the buildup of Russian missile bases in Cuba. President Kennedy held meetings with the National Security Council and the

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

UNCL. BY DOE
NOV 86

COPY NO. 45

October 22, 1962

INFORMATION MEETING 205

10:20 a.m., Monday October 22, 1962 - Chairman's Office, D. C.

1. President's Visit to Los Alamos

The Chairman said the Commissioners will consider a letter of invitation.

2. Personnel Appointment -- Hanford Operations Office

The Commissioners had no objection to the General Manager's recommendation.

3. Letter to Ambassador Beale re Cooperation with Australia on the PLOWSHARE Program

The Commissioners noted they had reviewed the revised letter and the Chairman said it would be discussed with White House staff. (Brown)

4. October 15, 1962 Letter from Dr. C. L. Storrs re GE Contract for SL-1 Project

5. Telegram from Dr. Van Allen to Dr. Haworth re Analysis of STARFISH Event Effects

Dr. Haworth noted Dr. Van Allen's telegram which reported that preliminary results of his analysis indicate that previous effects analyses are incorrect. The Commissioners noted importance of this in connection with existing analyses and its relation to the NASA press conference on test effects on the Van Allen Belt which the General Manager said would be held this Saturday or later.

6. Discussions with Industrial and Utilities Representatives re Planning of Construction for Large Nuclear Reactor

The Chairman requested consideration of the desirability of early discussions with representatives who are planning the construction of large plants. (Pittman)

7. AEC 881/42 - Nuclear Fuel Services Proposal

The Chairman suggested Dr. Wilson leave his views on this paper prior to his departure tomorrow.

Mr. Ramey noted the staff's comments that a delay of one year, would in effect will kill the project and conjectured that a contract with the established prices could be effected but with appropriate stretch-out arrangements. The General Manager said this matter is in discussion with staff and NFS representatives today.

8. Proposed Press Release re Buy-Back of Plutonium from Foreign Reactors

Dr. Wilson said he is in touch with the BoB on this matter.

9. General Manager's Intelligence Report re U.S.S.R. Tests

10. AEC 1122 - AEC Position on Cooperation in Industrial Development Efforts of Communities

Dr. Wilson said he wished to discuss the paper with staff today.

11. Report on Fossil Fuel Reserves

The Commissioners discussed briefly the Department of Interior figures and requested that copies of the report of the Senate Committee on Interior and Insular Affairs be circulated. (Secy)

12. Effect of Plutonium Pricing Formula on Reactor Industry

The Commissioners requested a report. (Fine/Pittman)

13. Suit Against AEC re Bazooka Accident at Los Alamos

Mr. Hennessey reported filing of the suit of $1.3 million against the AEC as a result of the accident in July.

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

W. B. McCool
Secretary

Cabinet (which I did not attend) and with key Congressmen and Senators in the afternoon.

At 7 p.m. the President appeared on TV to serve notice on Cuba and Russia that the United States will blockade the entrance of weapons to Cuba, will continue to watch the buildup and will take more action if it continues.

Tuesday, October 23, 1962 - D.C.

I informed the Commissioners that the AEC Operations Offices have been placed under Phase I Alert, i.e., instructions to check communications, 24-hour duty for communications, additional security guards, etc. It was a tense day with a meeting of the OAS representatives (endorsing President Kennedy's action), U.N. discussion of action and the reactions of various types from around the world. The USSR reaction is not clear yet.

I attended a meeting of the Federal Council for Science and Technology. We discussed the Gilliland Panel Report on ways of increasing the number of engineers, mathematicians and physical scientists. The goal is to increase the number of doctorates awarded each year in EMP to reach 7,500 in 1970 by increasing aid to graduate students through training grants, aid to universities in buildings, etc.

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

Wednesday, October 24, 1962 - Germantown

At 9:40 a.m. I presided over Information Meeting 206 (notes attached).

I sent a letter (copy attached) to Secretary Rusk asking him to negotiate with the U.K for an extension of use of Christmas Island, at least to the extent that we can keep much of our equipment there.

I sent a revised version of the SNAP-50 agreement (copy attached) to Webb to see if he will agree in view of our agreement to his suggested changes. Maybe we are finally close to the end of this one.

I received an angry letter from Senator Jackson and Congressman Holifield (copy attached) on our termination of the Allis-Chalmers contract to build the Byrd Station reactor. They ask us to furnish answers to many questions by December 1st.

The Commission adopted an increased fee policy for contractors who use their own facilities.

Kaysen called to let me know that the President has approved the KINGFISH shot.

As a result of the Cuban crisis, the Commission was briefed by the General Manager, John Derry, Ed Bloch and others on required actions in case of a national emergency.

I sent a letter (copy attached) to the President inviting him to visit Los Alamos and the Reactor Testing Station in Nevada.

I also sent a letter (copy attached) to the President proposing Edward Teller as the recipient of this year's Fermi Award.

Bundy called to say that he has a memorandum from Gilpatric regarding loading of nuclear weapons on Quick Action Alert planes, which states that AEC has been informed, but it does not say what the AEC view is. Bundy asked whether we plan to formulate and express a view. I said that we do not. I explained that, if the present Commission were asked to make a legal determination, with the legislative

DC FILE

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

October 23, 1962

PERSONAL AND C[redacted]

CLASSIFICATION CANCELLED
~~OR CHANGED TO~~
BY AUTHORITY OF A A Simpaolli, OC, DOE
BY memo 1/28/88

Dear Mr. President:

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

1. U.S.-U.S.S.R. Atomic Energy Exchanges (Unclassified)

At the Sixth General Conference of the International Atomic Energy Agency, the Soviet Delegate, Professor Emelyanov, discussed atomic energy exchanges with Ambassador Smyth, myself and others. Professor Emelyanov appeared to favor the atomic energy exchanges provided for in the basic U.S.-U.S.S.R. Exchange Agreement, but suggested that agreement be reached on details of specific exchanges. Later he provided us with a protocol and invited Ambassador Smyth and me to visit Moscow to conclude discussions on the protocol; alternatively, he said he was prepared to come to Washington to conclude one.

I have responded to Professor Emelynov's invitation by advising him that it would not be feasible for me to visit Moscow at this particular time although it might be possible next Spring. I further stated that we could receive Professor Emelyanov in Washington in the near future.

Seaborg (32676)
177
(4) Report to White House

2. State Agreements for Transfer of Regulatory Functions (Unclassified)

On October 15, 1962, Governor Nelson A. Rockefeller on behalf of the State of New York and I, as Chairman of the Atomic Energy Commission, executed an agreement for the transfer to the State of New York of certain of AEC's regulatory authority for the use of radioactive materials within the State. This agreement, which became effective upon its execution, is the fourth such agreement approved by the Commission. Previous agreements were made with Kentucky, California and Mississippi.

Steps looking toward the assumption by individual states of certain of the Commission's regulatory functions have also been taken by other states, and it is likely that Texas, New Jersey, Arkansas, Florida and Louisiana will submit programs to the Commission for their respective assumption of such regulatory authority in early 1963.

3. New Production Reactor - Hanford (Unclassified)

The Commission has been advised by Kaiser Engineers, construction contractor for the New Production Reactor at Hanford, Washington, that a preliminary cost estimate has indicated an increase of approximately $16 million over previous estimates. This increase would bring the total cost up to approximately $206 million. A further delay in completion schedule of five and a half months appears to be involved. This would project the completion date to March 15, 1963. DOE ARCHIVES

It is expected that a revised cost estimate will be submitted to our headquarters by our Hanford office on November 15, 1962. This estimate will be studied carefully to determine whether costs for the project can be held within the current estimate and, if not, whether a revision in our FY 1964 budget will be necessary. The Commission, on October 8, 1962, called to Washington the top officials of each of the three prime contractors, General Electric, Burns and Roe, Inc., and Henry J. Kaiser Company and strongly admonished them to make every effort to keep the costs within current projections. Subsequently, I wrote each of them confirming our strong feelings in this matter.

4. DOMINIC Series Status Report [redacted]

We are now at the half-way mark in the DOMINIC add on series of atmospheric tests at Johnston Island. This series is scheduled to be completed about October 31st, assuming satisfactory weather conditions. Three air drops and one missile firing were accomplished during the period October 2nd through 20th. In addition another attempt to fire the BLUEGILL DOD effects shot was unsuccessful on October 16th and a repeat is now scheduled for Wednesday night, October 26th (Hawaiian Standard Time), again utilizing

a THOR missile. Test bulletins on each of these events, with detailed and technical information on the shots, have been furnished your staff. The remaining four events consisting of two air drops and two high altitude effects shots are now scheduled to be completed by the end of this month. Your staff will be advised of the actual dates for these events and further test bulletins will be furnished upon completion of each event.

DOE ARCHIVES

Respectfully submitted,

(Signed) Glenn T. Seaborg

Glenn T. Seaborg

The President
The White House

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

UNCL. BY DOE NOV 86

COPY NO. 45

October 24, 1962

INFORMATION MEETING 206

9:40 a.m., Wednesday, October 24, 1962 - Chairman's Office, D. C.

1. Letter to Secretary of State re Christmas Island.

The Chairman will send the letter today. (Brown)

2. Letter to Webb re AEC-Air Force-NASA Agreement on Management of the Advanced Snap Systems Program.

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

3. October 22 Letter from Senator Jackson and Congressman Holifield re Byrd Reactor Contract.

The Chairman requested an early report for discussion and said he would later meet with Senator Jackson and Mr. Holifield on the matter. (Vinciguerra-Pittman)

4. Secretary Gilpatric's October 19 Memorandum to the Chairman, Joint Chiefs of Staff re Planning for Nuclear Weapons Effects Tests.

Noted.

5. Approval of the Kingfish Event.

The Chairman noted approval.

6. NSAM 197 - Transmittal of Information.

The Chairman noted receipt last night of the memorandum approving the proposed transmittal procedures and affirming the joint AEC-DoD determinations. He noted the general limitations on distribution of memoranda of this nature, but directed that this document be made available to the Commissioners and sent to the General Manager for appropriate handling. An appropriate letter to the Joint Committee is to be prepared for the Commissioners' review and the Chairman's signature. (GM)

7. AEC 374/99 - Weaponization Characteristics.

The Chairman commented on the importance of the memorandum and suggested a briefing for the Commission. (Betts-Secy)

8. Telegram from Ambassador Stevenson re Third Conference on Peaceful Uses of Atomic Energy.

Will be circulated. (Secy)

9. Chairman's October 5 Letter to Mr. Schlesinger re Commissioners Records.

To be circulated. (Secy)

10. Briefing on Emergency Procedures, 2:30 p.m., Today.

11. Chairman's Speech at Annual Brian McMahon Lecture, University of Connecticut, 8:00 p.m., Thursday, October 25.

12. Uranium Ore Stretch-Out Letter.

The General Manager reported the draft has been in discussion with the Bureau and will be before the Commissioners later today.

13. October 24 Memorandum to the Commissioners re Analysis of SNM Pricing Formula.

The General Manager noted circulation of the memorandum today and in response to Mr. Ramey's question said total dollar figures over a 5 to 10 year period based on the pricing formula would be added to the tables. The proposed press release on buy back of foreign plutonium is to be circulated for the Commissioners' review. (Clark)

14. Budget Tabulation for Fiscal Year 1962, 1963 and 1964.

The General Manager noted the circulation of his memorandum to the Commissioners.

15. Mr. Kavanagh's October 24 Memorandum to the Commissioners re Suggested Changes in Disarmament Nuclear Measures.

The General Manager noted the proposed changes in the ACDA documents for use in the November 8 meeting and requested early review of the draft letter of October 23 to Mr. William C. Foster. (Kavanagh)

PRESENT		DISTRIBUTION
Dr. Seaborg	Gen. Luedecke	Commissioners
Mr. Ramey	Mr. Hennessey	General Manager
Mr. Palfrey	Mr. Brown	General Counsel
	Mr. McCool	Secretary

W. B. McCool
Secretary

901397 ST FILE

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

OFFICE DIARY
GLENN T. SEABORG
Chr USAEC, 1961-72
FOLDER PAGE 22112

October 24, 1962

Dear Mr. Rusk:

As you are probably aware, since completion of the DOMINIC test series at Christmas Island in July of this year, the Atomic Energy Commission and the Department of Defense have maintained a fair-sized maintenance and caretaker force plus considerable equipment on the Island pending a determination of future United States interest in this facility. The present agreement expires early in February, 1963. Renegotiation of the agreement for continued use must be commenced not later than the second week in November, 1962, in accordance with the agreement.

Although no specific future atmospheric tests have yet been planned following completion of the current DOMINIC series, nor has the part that Christmas Island would play in any future off-continent test program been determined, the Commission considers that until such plans become firm it is prudent to retain an option to use this base of operations.

Accordingly, it is proposed that negotiations with the United Kingdom be opened as soon as possible to protect that option. Whether or not this can best be done by extending the present agreement, or by a new, interim agreement, we would leave to your judgment. What is needed is some basis for our continuing to maintain a maintenance force and some heavy equipment on the Island pending resolution of the question of whether or not we will conduct another atmospheric test series in the next year or so, and whether or not the use of Christmas Island will be required for such a series. These negotiations should be conducted with the understanding that if, and when, preparations for a new test series are deemed necessary, some amendments to the agreement may be desirable.

If I may be of further assistance in this matter, please do not hesitate to let me know.

Sincerely yours,

Glenn T. Seaborg

Chairman

The Honorable Dean Rusk
The Secretary of State

CONFIRMED TO BE UNCLASSIFIED
AUTHORITY: DOE - DPC
BY C. R. WILSON, DATE:
Cyrus Wilson 6/2/86
22112

366

OFFICE DIARY
GLENN T. SEABORG
Chr USAEC, 1961-72
FOLDER-PAGE 22113

OCT 24 1962

901398

Dear Jim:

I have reviewed the proposed AEC-DOD-NASA Agreement on SNAP-50/SPUR in light of your October 12, 1962 letter. I agree that it would be well to clarify the text in the areas you indicate. To this end, we have made the following modifications in the Agreement.

1. In paragraph III B.1.a. we have substituted the phrase "into an experimental system" for the words "into a complete and workable system", as you suggested.

2. In paragraph IV A, lines 9 thru 14, we have substituted the sentences -

> "An Air Force deputy, with appropriate authority from the Air Force, will be assigned to the AEC to assist the Program Manager in carrying out the project and will be empowered to act for the Program Office in areas assigned by the Program Manager. A NASA deputy, with appropriate authority from NASA, will be assigned to assist the Program Manager in carrying out the project."

for -

> "An Air Force deputy and a NASA deputy, with appropriate authority from their agencies, will be assigned to the AEC to assist the Program Manager in carrying out, in the most effective possible manner, the central objective of developing the SNAP-50/SPUR system and will be empowered to act for the Program Office in areas assigned by the Program Manager."

This modification is to meet the concern expressed in paragraphs 2. and 3. of your letter. It removes the inconsistency you found in lines 12 and 13 and makes clear that the NASA deputy, while devoting full time to the program, will represent only his agency.

CONFIRMED TO BE UNCLASSIFIED
AUTHORITY: DOE - DPC
BY C. R. WILSON, DATE:
Carl Wilson 6/13/86

OFFICE DIARY
GLENN T. SEABORG
Chr USAEC, 1961-72
FOLDER-PAGE 22114

These modifications have been made in the attached Agreement, which is returned for your approval and signature.

Sincerely yours,

Signed Glenn T. Seaborg

Chairman

Honorable James E. Webb
Administrator
National Aeronautics and Space Administration

Enclosure
Agreement (3 cys)

cc: Chairman (2)
Secretariat (2)
GM
AGMRD

RD:A:NFS SUBJ
RD:A:NFS Rdg
RD:D Rdg
RD Rdg (2)

UI FILE
NASA

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
WASHINGTON 25, D.C.

UNCL. BY DOE
NOV 86

OFFICE OF THE ADMINISTRATOR

OCT 12 1962

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

Dear Glenn:

I am returning to you the proposed AEC-DoD-NASA Agreement on the SNAP-50/SPUR Nuclear Electric Space Power Unit. Although I am in agreement with the text of the document, I believe an inconsistency or two have been overlooked during the drafting stages. In order to clarify these several points, I would suggest we make the following modifications in the Agreement.

1. In paragraph III B 1a, substitute the phrase "into an experimental system" for the words "into a complete and workable system." This change is consistent with the sense of the opening paragraph.

2. In paragraph IV A, line 11, delete the words "to the AEC." Although we agreed that the USAF and NASA Deputies would devote their full energies to this program, it had been our understanding that they would represent their respective agencies rather than be assigned to the AEC.

3. In paragraph IV A, lines 12 and 13, substitute the words "the advanced technological development for the SNAP-50/SPUR system" for the words "the central objective of developing the SNAP-50/SPUR system." This change is also consistent with the intent of the first paragraph of the agreement which represents our understanding of the program objectives encompassed by this Agreement.

Sincerely,

Hugh L. Dryden
Deputy Administrator

James E. Webb
Administrator

CHAIRMAN
ARMAND, ILL.
ALAN BOSWELL, COLO.
GUY THOMAS, TEX.
JAMES G. MCCLURE, IDAHO
JAMES E. VAN ZANDT, PA.
CHAS. HOSMER, CALIF.
WILLIAM H. FAVILS, MASS.
JACK WESTLAND, WASH.
JOHN T. CONWAY, EXECUTIVE DIRECTOR

Congress of the United States
JOINT COMMITTEE ON ATOMIC ENERGY

VICE CHAIRMAN
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CLINTON P. ANDERSON, N. MEX.
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WALLACE F. BENNETT, UTAH
EVERETT McKINLEY DIRKSEN, ILL.

UNCL. BY DOE
NOV 86

October 22, 1962

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

Dear Dr. Seaborg:

We are in receipt of the Commission's letter dated October 1, 1962 informing the Joint Committee that it was terminating the contract with Allis-Chalmers for the Byrd Station reactor, and outlining in general terms the Commission's future plans for remote station reactors.

We are deeply concerned with the failure to attain the original objectives for this program. The cancellation of the project after hardware procurement had been initiated, and less than one year before the scheduled shipment of all components to the Antarctic, suggests the possibility of defects in AEC planning and management. Based upon testimony received during the past several years from representatives of the AEC, the Navy, and the U.S. Antarctic Project Office, we remain convinced that substantial benefits could be obtained from a well planned remote site reactor program if properly managed and are concerned about the Commission's future plans in this field.

In view of the importance of this program, we expect that the Subcommittee on Military Applications or the full Joint Committee will hold hearings on this matter early in the next session of Congress. In order that the Committee staff may properly prepare and assemble material for the hearings, we would appreciate receiving by December 1, 1962 answers to questions and information requested in the attached paper.

We are sending a similar letter and list of questions to the Secretary of the Navy and suggest that your replies be coordinated. A copy of our letter to the Navy is attached for your information.

Sincerely yours,

Henry M. Jackson, Chairman
Subcommittee on Military Applications

Chet Holifield
Chairman

Attachments
As indicated

QUESTIONS CONCERNING CANCELLATION OF BYRD STATION REACTOR PROJECT AND THE FUTURE OF THE REMOTE SITE REACTOR PROGRAM

UNCL. BY DOE
NOV 86

A. CANCELLATION OF THE BYRD STATION REACTOR PROJECT

1. Chronology

Please supply a chronology of the most important events of the Byrd Station project, including such items as the date of the original AEC solicitation of proposals, the original contract with Alco, completion of Phase I, the Commission approval of Phase I, Alco notification of discontinuance, assumption of responsibility by Allis-Chalmers, submission of information by Allis-Chalmers, Commission review, when it first became apparent to the Commission that Allis-Chalmers could not meet the schedule and could not stay within the cost estimates, the Commission's first notification to Allis-Chalmers to hold further work in abeyance, and the Commission decision to terminate the project.

2. Plant Requirements

Based upon testimony received during the Joint Committee hearings in executive session on September 20, 1962, it would appear that the contractual provisions concerning plant requirements (size, weight, transportability, etc.) were quite vague. Please furnish the Joint Committee any relevant documents, including contract provisions concerning plant characteristics. Is AEC of the opinion that these provisions were adequate to proceed on the specified schedule?

3. Progress Reports

Please supply a copy of all of the regular progress reports on the project for both the Alco and Allis-Chalmers phases of the work.

4. Design Development and Review

Please summarize the Phase I design submitted by Alco and what action the Commission took on the design. Did the Commission approve the design? If the approval was conditioned on certain changes, what changes were specified by the Commission? Also summarize subsequent design submissions by Alco and Allis-Chalmers, and AEC comments and approval actions.

5. Changes in Project Scope

Did the Navy request changes in the designs submitted by either Alco or Allis-Chalmers which in effect changed the scope of the project? Did the Commission accept the changes proposed by the

Navy and make them contractual requirements? Were the changes recommended by the Navy in the nature of design improvements or were they changes which were fundamentally necessary to obtain a plant which could be utilized? Did the contractors accede to the necessity of any of the changes to provide a plant which was serviceable? Did any of the changes requested by the Navy increase the weight or number of components required for the project? What was the magnitudy of any such effects?

6. Fee

During hearings before the Joint Committee, it was indicated that the contractors would not receive a fee if the scheduled delivery dates were not met. Will AEC pay a fee to either contractor on this project?

7. Alco Responsibilities

What responsibilities - financial or otherwise - does Alco retain on the Byrd Station project?

8. AEC Management

Please summarize the AEC organization to supervise contractors on this project. Please state the number of people assigned at the various AEC offices, their background and qualifications, and the continuity of their assignments. In the light of the experience on this project, should closer AEC management and control of contractor work be required in future similar projects in order to assure success?

9. Expenditures

How much was spent by Alco on the Byrd Station reactor? How much did Allis-Chalmers spend to date and how much more will be required to close out the contract?

10. Disposition of Material and Equipment

Has material and equipment been procured for the Byrd Station project? Please describe the items in general terms. What will be done with this material?

11. Use of Other Type Reactors

What consideration has been given to the use of other types of reactors developed in the Army power reactor program at the inland Antarctic stations? Why can't, for example, the mobile gas cooled reactor, the Camp Century reactor or the SL-1 reactor be used to meet the requirements of these stations

12. Martin Proposal

During the May, 1962 testimony, the Commission stated that Martin had submitted a proposal to take over the PM-3B. Aside from the personnel considerations (keeping an effort going in Schenectady), what was the Commission's evaluation of the Martin proposal? What plant concept did they propose? What was Martin's estimated cost? What was the Commission's opinion regarding the likelihood of Martin meeting the program schedule?

13. Kaiser Engineers and Commission Studies

How does the Byrd Station reactor work thus far performed by Alco and Allis-Chalmers compare with the feasibility studies prepared by the Commission and Kaiser Engineers in 1959-1960? Were the Commission estimates concerning size and costs of the Byrd Station plant valid in light of the experience available to date? The Commission-Kaiser Engineers study indicated the use of a direct cycle boiling water reactor for Byrd Station. What events or additional information caused the Commission to drop consideration of this type of reactor for the Byrd Station project?

14. Cost Estimates

Please summarize chronologically the changes in cost estimates for the Byrd Station reactor. Include the Commission's 1960 cost estimate (based on Kaiser Engineers study), the Commission's cost estimate at the time proposals were solicited for the Byrd Station plant, the estimate immediately following award of the contract to Alco, the estimate at the time Alco terminated work and the latest estimate. Please identify the areas where cost changes occurred; e.g., research and development, support facilities, component procurement. Please indicate the reasons for these changes; e.g., changes in scope, recognition of previously unforeseen needs, expedited procurement to meet schedules. (A tabular presentation of this information may be most convenient and useful.)

B. FUTURE PLANS FOR REMOTE SITE REACTORS

1. Alternative Project

The AEC letter dated October 1, 1962 states that AEC is "considering the possible prosecution of an alternative nuclear plant project, under the present Antarctic Authorization, which encompasses objectives which are more readily attainable at this point in time." Please provide more specific information as to such an alternative project. What locations

and plant sizes are being considered? What would be the time schedule? Who will prepare the plant specifications? Will they be performance specifications or detailed specifications? What procurement procedures are contemplated - cost reimbursement, fixed price solicitation or single source procurement?

2. Research and Development Effort

The AEC letter of October 1, 1962 stated that it was also "Initiating a specific research and development effort with the objective of a fifty per cent reduction in installed cost and a fifty to seventy-five per cent reduction in the number of packages requiring transport." The letter further states the "detailed preliminary analyses performed over the past year indicate that the attainment of these objectives is feasible . . ." Please furnish the Joint Committee copies of such detailed preliminary analyses. Why were such analyses not made prior to commencing work on the Byrd Station project? What contractor is performing this research and development effort? Is additional work planned? Will proposals be solicited? Is a prototype plant planned? Will the schedule meet the requirements of the Byrd and South Pole Stations?

3. Future Allis-Chalmers Efforts

The Commission letter of October 1, 1962 indicates that Allis-Chalmers will evaluate the PM-3B design. Specifically what has Allis-Chalmers been asked to do? What guidance has been supplied to Allis-Chalmers by the Commission for this effort? Where will this work be done? Assuming Allis-Chalmers does come up with significant improvements, will the Byrd reactor plant project be reinstated? What is the relation of this work to the "second generation" effort?

4. Future Plans

In addition to the alternative plant project and the research and development effort mentioned in the AEC letter of October 1, 1962, does the AEC have an overall plan for development of remote site reactors? If so, please summarize the main features of such an overall plan. Are management changes planned at headquarters or in the field to manage this program?

5. AEC-DOD Plant Development Philosophy

Is the present arrangement between AEC and DOD considered satisfactory for military reactor plant development? If not, what changes are suggested? Should, for instance, the Commission fund entirely through the prototype stage? Where is the line drawn between a "developmental" or "demonstration" plant, and a field plant with respect to joint funding? Does the Commission feel that BOB's policy on joint funding is too restrictive?

OFFICE DIARY
GLENN T. SEABORG
Chr USAEC, 1961-72
FOLDER-PAGE 22121

October 24, 1962

Dear Mr. President:

I recently learned of your possible interest in visiting the Los Alamos Laboratory after the middle of November to discuss, among other things, the ROVER nuclear rocket program. I think this is an excellent idea and certainly worthy of your time, particularly since the recent advances in the weapons field could also be discussed during your visit.

In planning a trip to Los Alamos, I would like to suggest that you also consider a visit to the Nevada Test Site where the actual tests of the experimental reactors developed in the ROVER program are conducted. A crucial test in the ROVER reactor series is presently scheduled for the period of November 15 - 20. While you are at the Nevada Test Site, you might also wish to inspect our underground test facilities.

I will be glad to accompany you on these visits if desirable and of course I will assist you or your staff in any detailed arrangements.

Respectfully yours,

Glenn T. Seaborg

The President
The White House

CONFIRMED TO BE UNCLASSIFIED
AUTHORITY: DOE - DPC
BY C. B. WILSON, DATE: Carl Wilson 6/3/86
W L Kapp 6/6/82

A.R.Fritsch:es - Oct. 24, 1962

UNCL. BY DOE
NOV 86

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

The White House
Washington

October 25, 1962

OFFICE OF THE CHAIRMAN

1962 OCT 25 AM 11 25

Dear Mr. President:

I am pleased to inform you that the Atomic Energy Commission, upon the recommendation of the General Advisory Committee, wishes to grant the Enrico Fermi Award for 1962, in the amount of $50,000, to Dr. Edward Teller. This award would be in recognition of Dr. Teller's outstanding contributions to chemical physics and to the understanding of nuclear structure, his initiation and active support of research on thermonuclear reactions, and his efforts to strengthen the security of the United States and to insure the peace.

The Enrico Fermi Award was established by the Commission in 1956. It is granted not more often than annually, and in an amount not exceeding $50,000 to any one individual, under the authority of Section 157 b.(3) of the Atomic Energy Act. If the award is made to more than one individual, the total amount remains $50,000. In establishing the award, the Commission determined that it shall be made:

(a) For outstanding scientific or technical achievements related to the development, use, or control of nuclear energy;

(b) On an international basis;

(c) To an individual, or to several individuals, for separate or cooperative achievements.

The Enrico Fermi Award was granted to the late Dr. John von Neumann in 1956, to the late Dr. E. O. Lawrence in 1957, to Dr. Eugene P. Wigner in 1958, to Dr. Glenn T. Seaborg in 1959, and to Dr. Hans A. Bethe in 1961. No award was granted in 1960.

The Commission recommends that you approve granting the award to Dr. Teller, with the presentation to be made at a ceremony in December, 1962. The selection of Dr. Teller to receive the award would be announced a few days before the ceremony.

Biographical data on Dr. Teller are enclosed.

Respectfully yours,

Glenn T. Seaborg

The President
The White House

Enclosure

Approved
The President

Date: 10/31/62.

October 20, 1962

BIOGRAPHICAL SKETCH

Edward Teller

Edward Teller was born in Budapest, Hungary, on January 15, 1908. He studied at the Karlsruhe Institute of Technology and the University of Munich. He received his Ph.D. from the University of Leipzig in 1930 and was a research associate at Göttingen from 1931 to 1933. In 1934, after Hitler came to power, Dr. Teller moved to Copenhagen, where he studied under a Rockefeller fellowship. After lecturing at the University of London in 1934, he came to the United States as a professor of physics at George Washington University, Washington, D. C. In 1941 he joined the physics department at Columbia University. During World War II, Dr. Teller served as a physicist with the Manhattan Engineer District at the University of Chicago and the Los Alamos Scientific Laboratory.

Dr. Teller was an assistant director of the Los Alamos Scientific Laboratory from 1949 to 1952 and associate director of the E. O. Lawrence Radiation Laboratory at Berkeley, California, until 1962. He is now professor-at-large in the University of California.

Dr. Teller is considered one of the most original, imaginative, and versatile scientists in the world today. His contributions to science extend from engineering and technology to physics and chemistry, to the most abstract theories in quantum mechanics. There is a similarly wide range in the character of his contributions. Some form the foundations for major structures in scientific theory; some are illuminating flashes of insight which have helped to solve practical but often tantalizing puzzles.

Franck and Heisenberg exerted the deepest influence on Teller during his college years. Those were the years of spectacular development in quantum mechanics, when this theory successfully penetrated the mysteries of many disciplines. Dr. Teller's contributions were most significant in two fields, the theory of magnetism and the chemistry of molecule formation. His first paper, on the hydrogen molecular ion, continues to be quoted as the first step in the development of the theory of molecular orbitals, which most successfully explains the phenomenon of chemical bond. Among his twenty-five papers on the quantum theory of molecules it is difficult to select the most significant ones. Perhaps his theory of molecular vibrations and sound distribution is the most substantial, his observation of the duration of the magnetic cooling process the most illuminating, his contribution to the Jahn-Teller theorem the most erudite, and his theory of the ortho-para-hydrogen conversion the most ingenious of his accomplishments in the "physical-chemistry" period. Nor should one overlook his work on the adsorption of gases on solids in collaboration with Brunauer, Emmett, and Deming.

In the late thirties, Teller's interest turned increasingly toward nuclear physics. His first paper on this subject with G. Gamow established new selection rules for beta decay. "G-T selection rules" are now part of the universal language of science. This paper was a worthy introduction to a series of important articles which parallel in their general character his earlier work in physical chemistry. They include studies of the alpha particle model, the origin of nuclear forces, and the scattering of neutrons by ortho- and para-hydrogen. Two papers in this period foreshadow his later interests. One relates to the rate of selective thermonuclear reactions, the second to the origin of the great nebulae, both written in collaboration with G. Gamow. There are a few articles on physical chemistry from this period, the most remarkable of which deals with electrical breakdown.

Dr. Teller's work during World War II cannot be fully discussed in public. At the Metallurgical Laboratory in Chicago he devised an alternate method of calculating the criticality of nuclear reactors. This method was later discovered independently in the U.S.S.R. and widely advertised for its originality and power. Dr. Teller did most of his war work at Los Alamos. His ideas on thermonuclear devices, formulated before the fission bomb was completed, showed unusual imagination. After the war Dr. Teller developed with S. Ulam the principle that ensured successful development of the hydrogen bomb.

After the Atomic Energy Commission was established, Dr. Teller had an important role in establishing the Reactor Safeguards Committee, of which he was the first chairman. The procedures he helped to establish have been responsible for the excellent record of reactor safety in the United States.

In his purely scientific work, Dr. Teller has shown great interest in cosmology. He formulated a theory of the origin of cosmic rays which, though not accepted at present, shows all the wit and imagination of his earlier years. His most substantial article on cosmology analyzes the behavior of matter at very high pressures. Another important paper provides a theory of the origin of the elements. His best known paper in the postwar period, written with Fermi and Weisskopf, is fundamental to the present theory of nuclear forces. Most remarkable is his paper explaining the "giant resonances" as vibrations of protons against neutrons. It has furnished the basis for a new literature in nuclear physics.

Accomplishments to a new technology are difficult to evaluate. It would be inaccurate, however, to overlook his many contributions to research on controlled thermonuclear reactions and his initiation of the study of peaceful nuclear explosions. Both in time may contribute significantly to human welfare.

Dr. Teller has received the Joseph Priestley Memorial Award of Dickinson College, the Albert Einstein Award, the General Donovan Memorial Award, and the Living History Award of the Research Institute of America.

He is a former Chairman of the AEC Advisory Committee on Reactor Safeguards and a former member of the General Advisory Committee to the AEC. He is a member of the National Academy of Sciences, the American Academy of Arts and Sciences, the American Ordnance Association and of the Scientific Advisory Board of the U.S. Air Force. He is a fellow in the American Nuclear Society and the American Physical Society.

Dr. Teller married the former Augusta Harkanyi in 1934. They have two children, Paul and Susan. The family resides at 1573 Hawthorne Terrace, Berkeley, California.

history being what it is, we would probably make the decision the same way as indicated in our January 30, 1962, letter to the President.

We were asked for our opinion as to what would be best for the country. Hence, I have not asked the Commission for such an opinion. We are not going to volunteer a point of view. I did state, however, that we are not exercised about this matter. In conclusion, Bundy said that he will proceed on the basis that we have been informed and that we have made no comment, and I said this is right.

I sent a letter (copy attached) to Australian Ambassador Sir Howard Beale concerning the desirability of conducting Plowshare experiments in Australia.

Thursday, October 25, 1962 - D.C., Storrs, Connecticut

At 9:45 a.m. Jerry Johnson called to let me know that General Starbird will be put on special assignment. Rear Admiral Lloyd M. Mustin will assume charge of the Task Force. Jerry will notify Luedecke.

Accompanied by Arnie Fritsch, I flew to Hartford, Connecticut, on Eastern flight no. 28. We left at 10:30 a.m. and arrived at 12:30 p.m. We had lunch at the airport with William Orr (who obtained his Ph.D. at Berkeley), and then drove to the University of Connecticut in Storrs.

At 3 p.m. I talked to a group of the University faculty, followed by a question and answer period.

In the evening I attended a reception in my honor at President Homer Babbidge's house and a buffet dinner at Orrs' with a number of their friends.
Following, I gave the Sixth Brien McMahon Lecture, "New Perspectives in Atomic Energy," in the University auditorium. It was very well received and was followed by a question and answer period.

I spent the night at Orrs'.

Friday, October 26, 1962 - Storrs - Albany, New York

I was driven to Middletown, Connecticut, by a Pratt & Whitney employee in the company of Herb Pennington (who is in charge of the SNAP-50 program for the AEC, working out of the New York Operations Office), Kirk (in charge of SNAP-50 for DOD) and Arnie Fritsch. I toured the CANEL facility to view the SNAP-50 work with W. P. Gwinn (President, United Aircraft), L. C. Mallet (Vice President and General Manager, Pratt & Whitney), Walter Doll (Nuclear Systems Manager, CANEL), C. E. Holtsuyer, R. I. Strong, R. W. Kelley and many others. I had lunch with the group.

After lunch I was driven to Albany where I attended a black tie dinner in the Crystal Room of the DeWitt Clinton Hotel at the invitation of President James E. Allen, Jr. of the State of New York, hosted by the Regents of the University of the State of New York. I gave an address in the State Education Building entitled, "Education for a Democratic-Scientific Society," at a convocation entitled, "New Directions in Education." August Heckscher (Director, 20th Century Fund & White House Consultant on the Arts) also spoke. I received an honorary doctor of science degree from the University. August Heckscher, Howard Hansen (Director, Eastman School of Music, University of Rochester), Henry Heald (President Ford Foundation) and Millicent McIntosh (President Emeritus, Barnard College) also received honorary degrees.

Fritsch joined his family in Buffalo and I spent the night at the DeWitt Clinton Hotel.

Australia

DC FILE

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

901405

OCT 25 1962

OFFICE DIARY
GLENN T. SEABORG
Chr USAEC, 1961-72
FOLDER-PAGE 22127

Dear Sir Howard:

During the last two years members of the United States Atomic Energy Commission staff and the staff of our laboratory at Livermore, California, which is operated by the University of California, have had numerous conversations with Australian representatives regarding our Plowshare Program and, in particular, the feasibility and desirability of conducting nuclear excavation experiments in Australia. On the basis of these discussions, particularly those with Dr. Gary Higgins on his visit to Australia in March 1962, we have the preliminary impression that there may be projects in Australia that could be conducted in a manner to provide valuable technical data and at the same time accomplish excavation which might have potential value to Australia. Further, as a result of recent conversations we understand that the Australian Atomic Energy Commission would appreciate receiving our general reaction as to whether it might be feasible for the United States and Australia to collaborate in the development and execution of any nuclear excavation experiments in Australia.

Although, as I am sure you appreciate the Commission cannot commit itself to undertaking any specific experiment without further study, we would be fully prepared, should your Government so desire, to pursue discussions with your representatives on a more detailed basis. In these discussions the type of experimental program that might be of mutual interest could be explored. We would also be pleased to discuss other pertinent aspects of the problem including the nature of inter-governmental agreement that would be required, should our Governments decide to proceed in earnest on this matter, and how the responsibilities for health and safety might be allocated. These discussions should enable us to determine whether the undertaking of an excavation experiment is desirable from our respective standpoints.

CONFIRMED TO BE UNCLASSIFIED
AUTHORITY: DOE - DPC
BY C. R. WILSON, DATE:
CRWilson 6/3/86
FL Hoppe 4/6/86

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OFFICE DIARY
GLENN T. SEABORG
Chr USAEC, 1961-72
FOLDER-PAGE 22128

Accordingly, should your Government wish to proceed further in developing this subject you may be sure that the matter will receive our most sympathetic and earnest attention.

If you have further questions on this subject please do not hesitate to let me know.

Sincerely yours,

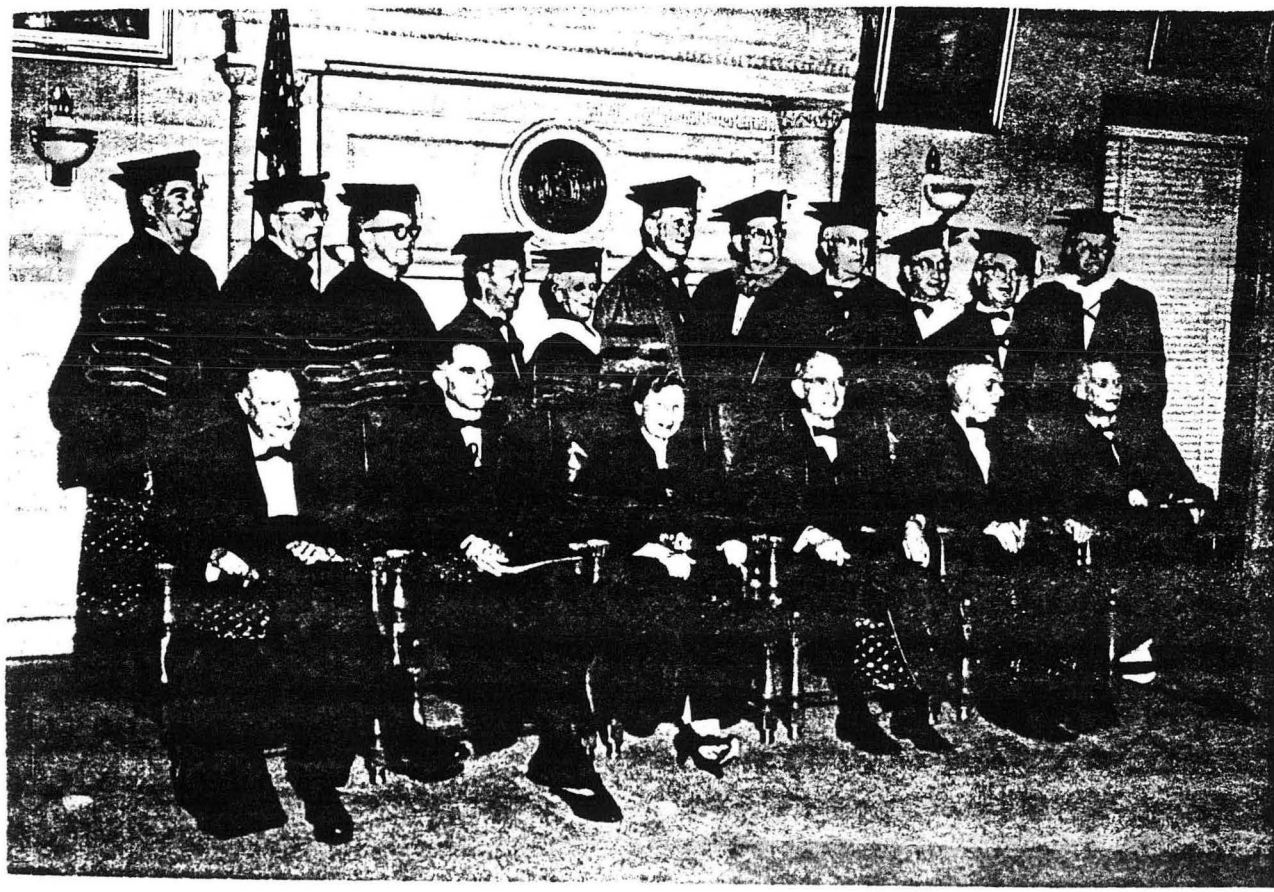
(Signed) Glenn T. Seaborg

Chairman

His Excellency
The Honorable Sir Howard Beale
K.B.E., Q.C., Ambassador
Embassy of Australia
1700 Massachusetts Ave., N.W.
Washington 6, D.C.

SO&CC: Addee
2 CC; Chairman Seaborg
CC: Commiss. Haworth
CC: Commissioner Wilson
CC: Commissioner Ramey
CC: Commissioner Palfrey
CC: General Manager
CC: G.F. Quinn, AGMPP
CC: A. A. Wells, AGMIA
CC: S.G. English, AGMRD
CC: J.F. Hennessey, OGC
CC: W.B. McCool, Secretariat

DPNE
JSKelly/ag



Convocation of the University of the State of New York, where Seaborg was main speaker and received an honorary degree of Doctor of Science (Sc.D.), October 26, 1962

L to R: (Front Row) Howard Hanson, Seaborg, Millicent McIntosh, Chancellor Couper, August Heckscher, Henry Heald

(Rear Row) Regents McGovern, Allan, Marshall, Pforzheimer, Gannett; Commissioner Allen, Vice Chancellor Collum; Regents Hubbell, Maurillo, Penny, Millard

Saturday, October 27, 1962 - Albany - Washington

I flew back to Washington (Baltimore) on American flight no. 581, leaving at 7:25 a.m. and arriving at 10:10 a.m.

I spent a good part of the day working on AEC papers at home.

Sunday, October 28, 1962

I worked on AEC papers, the speech I will give at the Cincinnati Post of the American Ordinance Association on November 9th, "Atomic Power in Space," and Haworth's rewrite of the report to President Kennedy on the civilian nuclear power program.

Monday, October 29, 1962 - D.C. - Oak Ridge, Tennessee

At 12:10 p.m. I presided over Information Meeting 207 (notes attached).

I had lunch with Ramey at the University Club to discuss various matters of Commission operation and reorganization.

I wrote to Earl Hyde to tell him I wish to once again nominate Luis Alvarez for the Nobel Prize in Physics and Burris Cunningham in Chemistry and asking his help in updating previous nominations.

At 7 p.m. Arnie Fritsch and I flew to Knoxville on American flight no. 375, arriving at 8:40 p.m. We were met by Sam Sapirie (Manager, Oak Ridge Operations Office), who drove us to Oak Ridge. We stayed overnight at the Holiday Inn.

Tuesday, October 30, 1962 - Oak Ridge

From 9 a.m. to 12:45 p.m. I attended the Annual Information Meeting of the ORNL Chemistry Division.

I visited the HFIR and the sites of the Transuranium Element Process Facility and the relativistic cyclotron.

After lunch we were briefed on the heavy isotope production program. We visited the Experimental Gas Cooled Reactor (EGCR) which is under construction, the Agricultural Research Laboratory (a University of Tennessee operation under the guidance of N. S. Hall), the Oak Ridge Institute of Nuclear Studies (William Pollard) and the Oak Ridge Museum.

A dinner was held in my honor at the Holiday Inn. I spoke briefly after being introduced by Clarence Larson.

I spent the night at the Holiday Inn.

Wednesday, October 31, 1962 - Oak Ridge - Gatlinburg

I had breakfast with Iz Perlman and Fritsch. I visited the Oak Ridge Operations Office and addressed the key staff.

I visited the Oak Ridge Gaseous Diffusion Plant where I was briefed on this operation and the centrifuge program by Clarence Larson, Clark Center, J. P. Murray and R. G. Jordan. I received a sample of XeF_2 synthesized by the inorganic chemistry group.

Mr. Commissioner

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

COPY NO. 15

October 29, 1962

INFORMATION MEETING 207

12:10 p.m., Monday, October 29, 1962 - Chairman's Office, D. C.

✓ 1. Ambassador Stevenson's Telegram re Third Conference on Peaceful Uses of Atomic Energy.

The Commissioners agreed the Commission should maintain its previous position vigorously supporting a proposed 1964 Conference on Peaceful Uses of the Atom. The Chairman requested this position be pressed with the State Department at the appropriate time. (Wells)

2. Report on Eye Burn Injuries to Members of JTF-3.

Mr. Hollingsworth reported preliminarily and the Commissioners requested an early further report.

3. Forthcoming Scheduled DOMINIC Tests.

Noted.

✓ 4. Proposed Announcement re Termination of DOMINIC.

The Commissioners discussed the proposed announcement and requested that the language be consistent with the necessary retention of equipment, etc. at Johnston and Christmas Islands. The announcement is to be cleared with the White House. (Clark)

5. USSR Nuclear Tests.

The Commissioners discussed briefly the Soviet tests yesterday and today and agreed that two of the events should be announced. (Clark)

6. General Betts' Departure for Johnston Island Tomorrow.

7. Reactor Incident at Oak Ridge.

Mr. Hollingsworth reported on the incident at the heavy water component tests reactor and the loss of some 500 pounds of heavy water.

8. AEC Assistance in UN Inspection of Nuclear Missiles in Cuba.

The Chairman agreed it would be desirable to be alert to a possible call on the agency for assistance. (Betts)

9. Draft Statement for NATO Council Meeting in December.

Mr. Hollingsworth reported the draft statement is in staff review for Commission consideration next week. (Betts)

10. Mr. Ramey's October 26 Memorandum re Clearance of NATO Personnel.

The Chairman asked Mr. Hollingsworth to consider what could be done. (Waters)

11. Acting Chairman's October 26 Meeting at the Office of Emergency Planning.

The Chairman noted Dr. Wilson's attendance at the meeting on Friday and suggested the Commissioners discuss the matter on Wednesday. The Chairman requested review of emergency planning, i.e. emergency cadres, line of succession, etc., and Mr. Hollingsworth said this matter is in review and will be discussed with the Commission shortly. (Derry)

12. McMurdo Reactor Incident.

The Commissioners requested a report. (Pittman)

13. Death of Dr. Egar Murphree Today.

14. Restricted Data Study.

The Commissioners requested submission of an early discussion paper. (GC)

15. Civilian Nuclear Power Report.

PRESENT		DISTRIBUTION
Dr. Seaborg	Mr. Hollingsworth	Commissioners
Dr. Haworth	Mr. Hennessey	General Manager
Mr. Ramey	Mr. Brown	General Counsel
Mr. Palfrey	Mr. McCool	Secretary

W. B. McCool
Secretary

Visit of Seaborg to Oak Ridge, October 30, 1962

L to R: Seaborg, Sam Sapirie (Manager, ORO), H. M. Roth

After lunch in the Y-12 cafeteria with a group of administrative people, including Roger Hibbs, I visited the Y-12 weapons fabrication area.

I held a press conference in Sam Sapirie's home. Afterward, Clarence Larson drove me to Gatlinburg, where I had dinner at the Ski Lodge with Larson and Dan Cowan.

I spent the night at the Mountain View Hotel (where Helen and I stayed in September 1942).

Thursday, November 1, 1962 - Gatlinburg - Washington

I gave a talk before the Southeastern Regional American Chemical Society meeting held in the Civic Auditorium. My talk entitled, "Heaviest Transuranium Elements," was very well received by about 500 people. My appearance at the meeting was arranged by Ray Stoughton (my Berkeley and Met Lab colleague).

I flew back to Andrews Air Force Base on a MATS plane with Arnie Fritsch, Chris Henderson and Jim Haddow, who had come down with some papers. We left at 3:10 p.m. and arrived at 5:10 p.m. I worked on AEC papers on the flight back and at home.

KINGFISH, a high altitude shot, went successfully at Johnston Island at 7:10 a.m. EST.

Friday, November 2, 1962 - D.C.

I attended a meeting of the Space Council in the Executive Office Building. Vice President Johnson, Secretary McNamara, Jim Webb and Alexis Johnson were among those present. The NASA request for DX priority for CENTAUR was approved.

The other Commissioners and I met with Arthur Murphy and Richard E. Neustadt (consultants) on the Commission reorganization. The trend seems to be away from the single administrator toward a modified Commission with a division of responsibility and more power in the chairmanship.

I had lunch with Murphy, Neustadt, Commissioners Wilson, Palfrey and Ramey and Howard Brown at the Cosmos Club.

Bundy called at 12:20 p.m. and asked when we will finish our nuclear weapons tests. I said that we have only one more test (a high altitude, low yield one) and that we will be finished the day after tomorrow. He said that the President is thinking of making a statement that we are not planning on any more atmospheric tests for a while and asked whether we would be hurt by this. I said probably not, but some additional tests on the RIPPLE concept would help; however, we could not have them ready for at least a month. Whereupon, Bundy asked about a six-month interval, and I said that it would probably be even better to be able to test at that time, rather than rushing to get it through within a month. I said that even the failures taught us a lot, but the reshoot of only a few days ago indicates that it went very well; we will be getting more data, which will help us to design the next device. I remarked that it will be borderline whether we can stockpile without further atmospheric tests. I said that we are beginning to raise the question if we should settle policy on the very big ones and whether or not we will go into building them.

I was visited by Leslie Wood (Trustee) and Dr. James Creese (President) of Drexel Institute of Technology. They told me that Dr. Creese is nearing the end of his term as President and they are looking for a replacement. They asked me whether I would be interested in the position, and I told them that I think I would not.

I met (2:45 p.m. to 3:05 p.m.) with Dr. Jan Rydberg (Research Director of the Research Institute of National Defense, Stockholm). This was a social visit. We discussed the price reduction in U-235, the value of plutonium as a fuel, and the Swedish power reactor program using natural uranium. He indicated to me that they are not working on production of nuclear weapons in Sweden, although they are doing some open work on plutonium metallurgy directed towards the use of plutonium in reactors.

At 4:25 p.m. I presided over Commission Meeting 1888. The Commissioners approved a proposed extension of contract with Associated Universities, Inc. for operation of BNL. The Commission requested that flexibility be maintained in negotiations of the fee and if the negotiations are unsuccessful the matter be brought back for further Commission review. The Commission approved a fee (approximately $500,000) for the AUI operation of Brookhaven. This establishes an extremely important precedent. Mr. Vinciguerra noted that he will prepare an appropriate statement of policy to be incorporated in the AEC Manual regarding the fee payment to non-profit organizations, other than universities. The Commissioners approved a draft executive order assigning emergency preparedness functions to the AEC. A letter to the Director of the Budget was approved about the differences in cost reimbursement practices of federal agencies in connection with cost-type contracts with commercial organizations. The Chairman requested a briefing prior to the tentatively scheduled meeting with BOB, for the week of November 5th.

At 5:25 p.m. I presided over Information Meeting 209 (notes attached).

At 6:40 p.m. I called Mac Bundy to discuss with him the problem of the shot which will go off Sunday morning. We need to know if we should state it is the last shot of the series. He will see the President shortly. He thinks the President might wish to speak with me in the morning. In any case, Bundy will call me in the morning.

Saturday, November 3, 1962 - D.C.

Bundy called at 9:20 a.m. to say that the President wishes to discuss the nuclear test series at the NSC meeting this morning and asked me to attend.
Bundy said he misstated the President's wishes regarding the announcement; that the President doesn't see any need for atmospheric testing in 1963, and he will discuss this in our meeting this morning.

From 11 a.m. to 11:20 a.m. I attended the National Security Council Meeting in the Cabinet Room of the White House. The President opened the meeting by asking me if there is any necessity to test in the atmosphere in 1963. I briefly described the RIPPLE program and said that further tests of this concept would be necessary before weapons could be perfected and that the first such tests could be held next May. Secretary Rusk said that he feels we should maintain maximum flexibility with regard to the resumption of atmospheric testing and make no statement that would preclude the possibility. On the basis of these facts, the President decided that the statement announcing the end of the current atmospheric test series should be silent on the question of possible testing in 1963. He suggested that Bundy, Foster and I get together to draft a statement on the termination of the series which he could use after the last shot tomorrow morning.

After the meeting, Kaysen (for Bundy), Foster, Haworth and I got together and drafted a statement (copy attached) which will be reviewed by the President this afternoon.

I worked on AEC papers at the office and at home.

UNITED STATES GOVERNMENT

Memorandum

TO : A. R. Luedecke, General Manager

DATE: November 2, 1962

Approved _____ A. R. Luedecke

FROM : W. B. McCool, Secretary Original signed W. B. McCool

Date _____

SUBJECT: ACTION SUMMARY OF MEETING 1888, FRIDAY, NOVEMBER 2, 1962
4:25 P.M., ROOM 1113-B, D. C. OFFICE

SECY:MK

Commission Business

1. Agenda for the Week of November 5, 1962

Approved. (Secretary)

2. AEC 317/18 - Proposed Extension of Contract with Associated Universities, Inc., for Operation of BNL

Approved. (Vinciguerra)

The Commission noted that:

a. All of the items of legal consideration referred to in AEC 317/18 need not necessarily be obtained.

~~b. The sabbatical leave may be handled as an allowable cost, part of the fee or both.~~ (Vinciguerra)

b. Would my Commissioners that the matter of sabbatical leave would be permitted as deemed appropriate by staff

The Commission requested that flexibility be maintained in negotiations of the fee and if the negotiations are unsuccessful the matter be brought back for further Commission review. (Vinciguerra)

Mr. Vinciguerra noted that he will prepare an appropriate statement of policy to be incorporated in the AEC Manual regarding the payment of fee to non-profit organizations, other than universities. (Vinciguerra)

3. AEC 540/66 - Draft Executive Order Assigning Emergency Preparedness Functions to the AEC

Approved. (Derry)

4. Letter to Director of Budget Re Differences in Cost Reimbursement Practices of Federal Agencies in Connection with Cost-Type Contracts with Commercial Organizations

Approved. (Done)

23007

OFFICE DIARY
GLENN T. SEABORG
Chr USAEC, 1961-72
FOLDER-PAGE 23007

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

COPY NO. 15

INFORMATION MEETING 209
5:25 p.m., November 2, 1962, Room 1113-B, D. C. Office

901422

UNCL. BY DOE NOV 86

1. Enrico Fermi Award for 1962

The Chairman reported Presidential approval of the Commission's nominee. The Chairman will notify the nominee, the Chairman of the Joint Committee and the Chairman of the GAC. (Brown/Secy)

2. Letter to Chairman Holifield re Review of Dr. Teller's Speech

Mr. Ramey commented that it was important to follow a similar procedure as had been done in the Bethe matter, and the Chairman requested circulation to the Commissioners of copies of the speech and the analysis. (General Manager)

3. Meeting with Minister Bahlke (West German AEC Commissioner)

The Chairman noted that Dr. Wilson will meet with Minister Bahlke at 10:00 a.m. tomorrow and invited others to attend as they wished.

4. Restricted Data Category Study

Mr. Palfrey discussed briefly the Commission's discussion of this matter on Wednesday, and the request for detailed discussions with other agencies. Mr. Ink commented that it would take several days for other agencies to develop more information on the matter. The Chairman said he would telephone Secretary Gilpatric and Assistant Secretary Johnson on Monday, requesting a meeting on November 13. The staff, in the meantime, will develop some information with working level representatives of the two departments and Commissioner Palfrey will prepare letters to the Secretary of State and the Secretary of Defense informing them of the current status of the Restricted Data study and suggesting examples of kinds of communication for discussion with the Commission at the November 13 meeting. Meanwhile, Mr. Ink will prepare a working document for use in the meeting with other agency officials. (Ink/Brown/Secy).

CLASSIFICATION CANCELLED WITH DELETIONS BY AUTHORITY OF DOE/OO
REVIEWED BY N.L. Hoppe DATE 4/3/86

5. Proposed DRIBBLE Program

The Chairman commented on Congressional interest in letters of inquiry from the State of Mississippi regarding the proposed condemnation of mineral rights in that State. (The Commission approved the program and condemnation follow-on proceedings at Meeting 1873 in discussion of AEC 1029/27.) The Commissioners agreed that in view of recent events and possible further Congressional interest in this matter that it was important the President be informed of Project DRIBBLE along the lines that were recommended by the General Counsel in his concurring staff judgment (AEC 1029/27) and the Attorney General should be similarly informed. (Betts/General Counsel)

OFFICE DIARY
GLENN T. SEABORG
Chr USAEC, 1961-72
FOLDER-PAGE 23008

6. DoD Query re Use of Detection Aids

The General Manager reported the DoD staff query for use of detection aids and the Commissioners noted need for careful evaluation of this proposal, if it is forthcoming.

7. Uranium Procurement Stretch-Out

It was noted that the directive to the Commission is in review at the BoB and will probably be transmitted to us next week. The General Manager commented that it is important to undertake early review of the announcement and discussions with the Joint Committee prior to action on the directive.

8. PLOWSHARE Program for the State of West Virginia

The General Manager reported a forthcoming request from Governor Barron of West Virginia discussing the suitability of that State for projects under the PLOWSHARE Program.

9. Letter from Mr. Runion re NFS Proposal

The General Manager noted receipt of Mr. Runion's letter stating his desire to proceed with the program and indicating the additional information requested by the Commission will be forthcoming. The General Manager added that he had established the terms of reference for the Technical Review Committee Charter today.

10. Michigan State University Symposium on Physical Processes in Radiation Biology -- May 5 - 10, 1963

The Commissioners had no objection to support in the amount of $12,000 and invitation of one Soviet National without reciprocity. (Dunham)

11. IAEA Salzburg Conference May 27 - 31, 1963 on Industrial Application of Isotopes

The Commissioners had no objection to the General Manager's recommendation. (Aebersold)

12. Meeting of the International Union on Geophysics -- Berkeley, Summer of 1963)

The Commissioners had no objection to AEC support in the amount of $10,000.

13. High Altitude Sampling Station

The General Manager reported all arrangements have been concluded and that the station will begin operation in the near future.

14. Proposed Announcement re Termination of Operation DOMINIC

The Commissioners commented on the need for early White House clearance and the Chairman said he would call Mr. Bundy this evening. (Brown)

PRESENT		Distribution
Dr. Seaborg	Gen. Luedecke	Commissioners
Mr. Ramey	Mr. Hennessey	General Manager
Mr. Palfrey	Mr. Ink	General Counsel
	Mr. Brown	Secretary
	Mr. McCool	

W. B. McCool
Secretary

UNCL. BY DOE
NOV 86

U.S. ENDS NUCLEAR TESTS AT CHRISTMAS ISLAND

The Christmas Island phase of nuclear weapons tests conducted in the Pacific as part of Operation Dominic has been concluded. The test area around Christmas Island which was announced on April 4 will be disestablished at 12 midnight July 12, 1962, Hawaii Standard Time. That portion of the regulation prohibiting U.S. citizens or persons under the jurisdiction of the United States from entering the Christmas Island test area is no longer in effect. In addition, the temporary extension of the Johnston Island test area which was made effective June 12 will also be cancelled. This leaves effective the original Johnston Island test area which was announced on April 9. The original area is circular in shape with a radius of 470 nautical miles at the surface, using Johnston Island's coordinates (16° 45' North; 169° 31' West) as its center. The radius increases gradually until it reaches 700 nautical miles at 30,000 feet and above.

- 30 -

Sunday, November 4, 1962

I worked on AEC papers and read journals at home.

Monday, November 5, 1962 - D.C.

At 10 a.m. I presided over Information Meeting 210 (notes attached). We discussed a letter (copy of this and relative correspondence attached) to Congressman Jensen regarding the NPR determination.

At 11 a.m. the Commission met with Ragnar Rollefson (Director, Office of International and Scientific Affairs, DOS and Scientific Advisor to Secretary Rusk), E. M. Kretzmann (Deputy Director, OISA, DOS), C. W. Thomas (DOS representative on AEC affairs) and many of the AEC staff to discuss: 1. the economics of nuclear power, 2. an international accelerator, 3. an international commission on nuclear and neutron physics, 4. the IAEA Theoretical Physics Institute, 5. a U.S.-Soviet exchange program, 6. toll enriching, 7. a third Geneva conference, and 8. IAEA safeguards problems and the Indian Tarapur reactor.

I had lunch at the University Club with John Conway (Executive Director, JCAE). We discussed the AEC reorganization, the status of the civilian nuclear power study, the uranium stretchout, Pastore's plans for the next Congressional session, the U.S.-USSR exchange program, etc.

Having received the approval of President Kennedy, I called Edward Teller in Paris and told him that he has been selected to receive the 1962 Fermi Award. He expressed his delight and appreciation.

The Commission was briefed by General Betts on the status of advanced weapons development, i.e., the status of weaponization of advanced concepts.

Tuesday, November 6, 1962 - D.C.

At 10 a.m. the other Commissioners and I met with Commissioner Sakuji Komagata of the Japanese AEC, who was accompanied by Ambassador Koichiro Asakai, Y. Yamamoto (Scientific Attache, Japanese Embassy) and Tohru Haginoya (Atomic Energy Attache, Japanese Embassy). We discussed atomic energy matters generally.

I hosted a luncheon at the Mayflower Hotel for this same group plus a number of AEC staff.

From 2 p.m. to 5 p.m. I attended a meeting of the Federal Council for Science and Technology. We discussed studies of the National Academy of Sciences and FCST on natural resources (resume of actions attached).

From 5 p.m. to 6 p.m. I attended a "Tightrope" meeting (regulatory agency heads) at the Metropolitan Club. There was a discussion and general exchange of views on anti-trust problems.

I received a letter (copy attached) from Governor Rockefeller acknowledging the successful conclusion of the transfer of some regulatory functions from the AEC to the State of New York.

I wrote a letter to Charles W. Thomas (International Scientific Affairs) and thanked him for forwarding copies of my "Swedish-American of the Year" address which appeared in the "Department of State Bulletin," Vol. XLVII, No. 1217, October 22, 1962 issue.

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

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NOV 96

COPY NO. 15

November 5, 1962

INFORMATION MEETING 210

10:15 a.m., Monday, November 5, 1962 - Chairman's Office, D.C.

1. Letter to Congressman Holifield re Teller Statement

The Chairman said he would sign the letter subject to the Commissioners' review of the speech and the staff analysis. (Henderson)

2. MLC Trip to Oak Ridge November 13 to 15, 1962

The Chairman noted that Commissioner Palfrey could perhaps join the trip for one day.

3. Commission Representation on Inspection Flight to Antarctica

The Chairman noted that Congressmen Holifield and Hosmer and Dr. Gerald Johnson will accompany the group and asked that the General Manager determine whether Commission representation is appropriate. (General Manager)

4. Civil Defense Program at Oak Ridge National Laboratory

The Chairman discussed briefly his conversation with Dr. Weinberg and other Oak Ridge staff in which Dr. Weinberg renewed the suggestion that Oak Ridge Laboratory become involved in a civil defense program. He noted the availability of Dr. Wigner to head up the program for a period of one year if it is established. The Commissioners agreed the matter should be reviewed, and the Chairman said a proposal will be forthcoming from Oak Ridge. (English)

5. Letter to BoB Director Bell re Cost Principles

The Chairman said he had signed the letter.

√ 6. Letter to Congressman Jensen re NPR Determination

The Chairman said he would sign the letter after the Commissioners' review. (Henderson)

7. Test Bulletin on Santee Event

The Chairman commented briefly on his questions re the event, and the General Manager said he would submit further details. (Betts)

8. AEC/DoD Agreement on Nuclear Weapons Effect Research

Dr. Haworth noted receipt of Gerald Johnson's comments on Dr. Haworth's letter of October 9 transmitting the proposed agreement. Conformed copies noting the differences will be circulated to the Commissioners and the General Manager will discuss the matter with Dr. Haworth. (Secy)

9. Release of Information on PLOWSHARE Program

Mr. Henderson noted the White House staff call approving release of certain information. (Henderson)

10. Discussion of Commissioners' Visit to IAEA and Europe

The Commissioners requested a discussion with staff be scheduled for Wednesday, November 7 or Thursday, November 8 in Germantown. (Secy)

11. Discussions with Utility and Reactor Equipment Representatives

Mr. Ramey suggested it would be desirable to set up an early meeting for an exchange of information on the status of possible projects. The Commissioners requested a meeting with appropriate staff to discuss this matter be scheduled for November 14 or 15. (Secy)
and the Commissioners thought more preparing appropriate.

12. Meetings of Commission and Joint Committee Staff

The Chairman discussed the desirability of joint meetings to assure a more regular exchange of information, and the General Manager said he would discuss the matter with Mr. Conway. (General Manager)

13. Report on Results of Test Series

The General Manager commented on Mr. Howard Simons' reference to a forthcoming report in his article in today's Washington Post. He noted that a report is in staff and the Chairman requested discussion of the draft with the Commissioners. (Betts)

14. Press Attendance at KIWI Test

The General Manager noted the November 4 article in the Sunday Star re a ban on attendance of newsmen. The Commissioners suggested consideration of approval of their attendance, and appropriate clearance with the White House. (Ink)

15. Proposed UK/U.S. Statement re UK Test at NTS

The Commissioners approved the proposed statement and requested that the White House be informed. (Ink)

16. General Manager's October 31 Memorandum re Contract for Klystron Tubes

The Commissioners had no objection to the General Manager's proposal that he proceed with the contract and inform the Joint Committee. (Vinciguerra)

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

W. B. McCool
Secretary

DC FILE

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

DECL. BY DOE
NOV 3

NOV 8 1962

Dear Mr. Jensen:

This is in reply to your letter of October 1, 1962, in which you expressed the view that before AEC could enter into the proposed contract with the Washington Public Power Supply System (WPPSS), a new and complete analysis of all aspects of the proposal, including the arrangements between the WPPSS and the Bonneville Power Administration (BPA) would be required. You expressed concern regarding possible losses to the Federal Government.

With respect to the matter of financial return to the Federal Treasury, Section 112(b) of Public Law 87-701 requires only that the Commission determine that "the sale of byproduct energy could provide a substantial financial return to the United States Treasury for the benefit of the taxpayers." We do not believe that the question of financial loss to BPA is pertinent to that determination, since Section 112(d) requires that any losses to BPA in connection with the arrangements or sales authorized by Public Law 87-701 shall be borne by its system customers through rate adjustments. We did review carefully, however, the proposed arrangements between WPPSS and BPA from the standpoint of their compatibility with the proposed arrangements between WPPSS and AEC and the adequacy of the total arrangements to implement effectively the authorization provided by Public Law 87-701.

The proposed AEC-WPPSS contract, which was negotiated earlier this year, has been carefully reviewed and we have reported to the Joint Committee on Atomic Energy that no substantive changes need to be made in the contract pursuant to the provisions of Public Law 87-701. With respect to possible losses to the Government under this contract, Section 112(c) of the Act requires that all expenses of modifications of the NPR made at the request of a non-Federal entity, and all expenses of constructing and operating the electric generating and transmission facilities at the NPR, shall be borne by such non-Federal entity. The proposed contract between WPPSS and AEC explicitly provides that any activities which the AEC undertakes in connection with the arrangements with WPPSS, including any modifications in the NPR requested by WPPSS and the construction and operation of the power facilities, will be paid for from funds advanced by WPPSS.

Thus, by these two statutory provisions, Sections 112(c) and 112(d), the Federal Treasury and the taxpayers are protected, inasmuch as the Federal Government would not bear any of the costs which would be incurred, or losses which might arise, under the proposed arrangements with WPPSS.

We cannot agree with your statement that the Defense Department has never certified to any need for additional plutonium production over and above that which can be produced at existing production facilities. The DOD, as you know, periodically provides long term guidance to AEC on requirements for weapons and weapons materials. While it is true that at the time the EPR authorization was before the Congress in 1958, the Secretary of Defense had not submitted a formal requirement for additional production capacity, statements made in October 1958 and subsequently on requirements for reactor production capacity clearly confirmed that the EPR was needed.

With respect to the determination required by Section 112(b) (2), the Commission is of the opinion that the provisions of the proposed contract between WPPSS and the AEC concerning payments by WPPSS for the purchase of byproduct energy from the AEC justify the conclusion that such sale could provide a substantial return to the United States Treasury for the benefit of the taxpayers.

Sincerely yours,

Signed John A. Seaborg

Chairman

Honorable Ben F. Jensen
House of Representatives

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N F. JENSEN
SEVENTH IOWA DISTRICT

HOME ADDRESS:
EXIRA, IOWA

COMMITTEE:
APPROPRIATIONS

Congress of the United States
House of Representatives
Washington 25, D. C.

COUNTIES:
ADAIR, ADAMS, AUDUBON, CASS, FREMONT, GUTHRIE, HARRISON, MILLS, MONONA, MONTGOMERY, PAGE, POTTAWATTAMIE, SHELBY, TAYLOR

Chairman

October 1, 1962

UNCL. BY DOE
NOV 86

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

Dear Dr. Seaborg:

Your letter of September 27, 1962, discloses that the Atomic Energy Commission does not intend to make a new and complete analysis of all aspects of the Hanford proposal which I maintain is required by law before AEC can give consideration to entering into the proposed contract with the Washington Public Power Supply System.

Your letter of September 27, 1962, to Mr. Holifield, Chairman of the Joint Committee on Atomic Energy, a copy of which you sent to me, apparently is intended to meet the requirements of Sec. 112(g) of the Fiscal 1963 AEC Authorization Act. It is difficult for me to believe that AEC considers that the meager statement relative to the requirements of Sec. 112(b)(2) constitutes a compliance with Sec. 112(g) or that the potential payments to AEC by WPPSS meets the requirements of Sec. 112(b)(2).

The Act as passed requires that "The sale of byproduct energy could provide a substantial financial return to the United States Treasury for the benefit of the taxpayers." In making this determination AEC must of necessity take into account the effect of the concurrent WPPSS-Bonneville contract.

It is fully evident from the record that with a short dual-purpose operating period for the NPR of from one to three years, which could easily happen, there would be considerable losses to the taxpayers of the nation through the operation of the proposed WPPSS-Bonneville contract. In addition there are provisions of the contract which could occur that would result in obligation of up to $130 million on the taxpayers.

The requirement of Sec 112(b)(2) does not refer to a financial return to AEC alone but specifically refers to the Federal Treasury and the taxpayers. A minimal gain on one hand coupled with a substantial loss on the other hand can not be considered a substantial financial return to the Treasury. I insist that AEC is obligated under the law to take the proposed WPPSS-Bonneville contract into account in computing the potential financial return or loss to the Federal Treasury. There is no assurance that Bonneville could or would increase rates to cover any potential costs or losses under the WPPSS contract.

Your letter fully concedes that operation of the NPR for power-only is not economical. This does not justify AEC in subsidizing the NPR power production through unwarranted low charges for steam in the early years of dual-purpose operation or in practically no charge during power-only periods. It is fully evident that AEC and Bonneville have made no attempt to assure a reasonable return to the Treasury on the nearly $200 million of taxpayers' funds required to construct the NPR.

I note that you inferentially admit that I was correct in my statement that the Defense Department has never certified to any need for additional plutonium production over and above that which can be produced at existing production facilities. I am not surprised at this. If my memory serves me right I believe the Defense Department advised prior to the authorization of the NPR that there was not any need for additional production facilities in this country.

In conclusion, I reiterate my opinion that AEC has not fully complied with all the requirements of Sec. 112 of the act in question and can not enter into the proposed contract with WPPSS until it does so.

Sincerely yours,

Don T. Jensen

cc--Hon. John Taber
Hon. James E. Van Zandt
Hon. John R. Pillion
Hon. Ivor D. Fenton
Comptroller General

File

OFFICIAL USE ONLY

FEDERAL COUNCIL FOR SCIENCE AND TECHNOLOGY

Minutes and Record of Action

Meeting of November 6, 1962

The meeting convened at 2:05 p.m., in Room 206 Executive Office Building.

Attendance - Members of the Federal Council: Dr. Jerome B. Wiesner (Chairman); Dr. E. C. Elting (Acting - Agriculture); Dr. J. Herbert Hollomon (Commerce); Mr. Boisfeuillet Jones (HEW); Dr. Roger Revelle (Interior); Dr. Ragnar Rollefson (State); Dr. Glenn T. Seaborg (AEC); Dr. George Simpson (for Mr. James Webb - NASA); Mr. Elmer Staats (BOB); Dr. Alan T. Waterman (NSF); Dr. F. Joachim Weyl (for Dr. Harold Brown - DOD).

Participant: Dr. Detlev Bronk (NAS Committee on Natural Resources).

Guests: Mr. Robert J. Anderson, Dr. William E. Benson, Dr. T. C. Byerly, Mr. Howard Eckles, Dr. R. D. Huntoon, Dr. Paul W. McDaniel, Dr. Thomas B. Nolan, Mr. Thomas O'Brien, Mr. Vernon Ruttan, Dr. Hyman Schwartz, Dr. William Thurston (FCST Committee on Natural Resources); Col. Robert A. Cliffe, Mr. John Coleman, Dr. Julian Feiss, Dr. M. King Hubbert, Dr. Althelstan Spilhaus (NAS Committee on Natural Resources); Dr. Arnold Fritsch and Dr. Leland Haworth (AEC); Mr. William Hoff (NSF); Mr. William Salmon (State); Messrs. Herbert Brewer and Richard Callaghan (NASA); Mr. Michael Michaelis (Office of Science and Technology).

Resume of Actions

Item 1 Chairman's Report

a) Council statement was cleared on PSAC Manpower Report, subject to editorial changes.

b) Council members were requested to assure good communication within their respective departments regarding Council action and activities, especially to replace information channels lost with the change in status of the Standing Committee.

c) Appointment was announced of a special, policy level task group to prepare a report on the Government-wide program in water resources research, for possible transmittal to the Congress in January, 1963.

Item 2 Natural Resources Reports were received from Committees of the National Academy of Sciences and the Federal Council on Natural Resources Research. The primary issue arising out of the reports, and conceivably of importance in the context of the FY 1964 budget, concerned the NAS recommendation that an operations analysis group be formed within the Federal Government for both data collection and analysis. Other issues

arose out of discussion, and further Council deliberation will be scheduled for an early meeting. In the meanwhile, the Chairman requested that the Council Committee evaluate the other Academy recommendations and that a special task group prepare a detailed staff study on the frame of reference and organizational alternatives for the operations analysis group.

Item 3 Development of Guidelines for Public Release on Research and Grant Data

Discussion was deferred until after NSF concludes exploration with agency representatives on the extent of agreement with NSF proposed guidelines.

UNCL. BY DOE
NOV 86

STATE OF NEW YORK
EXECUTIVE CHAMBER
ALBANY

NELSON A. ROCKEFELLER
GOVERNOR

October 31, 1962

Dear Chairman Seaborg:

Thank you for your letter of October fifteenth, and the Agreement executed on that date providing for the assumption by the State of New York, and the discontinuance by the Atomic Energy Commission, of certain of the Commission's licensing and regulatory authority over by-product, source and special nuclear materials.

The execution of this Agreement is a landmark in the field of Federal-State cooperation in furtherance of the peaceful use of Atomic Energy. I deeply appreciate the cooperation that our State and its representatives have received from the Commission and its staff in the negotiations of this Agreement and in the formulation of the State's modified program for radiation control which became effective on the same date as the Agreement. We look forward to continued cooperation with the Commission in assuring that our respective federal and state programs for protection against hazards of radiation will be coordinated and compatible.

I have noted that Article VII of the Agreement recognizes that there is no precise clarity in the limits of the respective rights, powers and responsibilities of the Commission and the State under the Constitution with respect to protection against radiation hazards arising out of the activities licensed by the Commission within the State. New York State will be pleased to work with the Commission as provided in the Agreement, to define, within a reasonable time, the limits of, and to provide mechanisms for accommodating, such responsibilities of both parties.

To work with Mr. Harold L. Price in establishing a plan proceeding with this highly important cooperative endeavor, I have designated Mr. Oliver Townsend, Director of the Office of Atomic Development, who will work with Mr. Sol Corbin, Counsel to the Governor and the other officials within the State in developing a mutually acceptable plan of procedure.

Sincerely,

Nelson Rockefeller

Dr. Glenn T. Seaborg, Chairman
United States Atomic Energy Commission
Washington 25, D.C.

I wrote identical letters (copy attached) to Secretary Gilpatric and Alexis Johnson suggesting separate meetings next week to discuss the Restricted Data problem. They and the White House want to simplify procedures for the transfer of information to NATO, which means a diminished role for the JCAE and AEC. A difficult situation faces us.

Wednesday, November 7, 1962 - Germantown

At 9:50 a.m. I presided over Information Meeting 211 (notes attached). We discussed the widespread, adverse publicity that AEC received because Algie Wells recalled Bob Ritzmann from his liaison post at Chalk River as a result of Ritzmann's writing a letter critical of Canada to the Washington Post. The news media did not understand that this action was not punitive and was done only because Ritzmann had lost his effectiveness as a goodwill ambassador as a result of his action.

I called Gilpatric and Johnson to set up meetings next Tuesday to discuss the Restricted Data problem.

Haworth's summary of the nuclear power report (which I mediated) will probably go to the BOB today, despite Palfrey's dissatisfaction with some of it. I received a copy (attached) of Swidler's (FPC) comments to BOB Director Bell on the nuclear power report which are favorable. The Department of Interior reversed its earlier stand and takes a somewhat unfavorable attitude (via Revelle).

We are asking Tom Pigford and Farrington Daniels to serve on a board to hear the PRDC request for an operating license under the new three-man board procedure.

At 10:50 a.m. I presided over Commission Meeting Meeting 1889 (action summary attached). The Commission approved a joint determination with the Department of Defense, with minor modifications, for transmission of weapons utilization information to NATO civilian personnel (CABAL project).

We received White House approval of our proposal for uranium ore stretch-out, i.e., producers will defer some production in return for AEC's purchasing more later.

I had lunch in the cafeteria with Allen Vander Weyden and Julius Simmons to discuss the G.E. Evendale program preparatory to my visit there on Friday.

The Commission today approved the transfer of some regulatory functions to Texas in an agreement similar to that with California (with no controversies as in the New York case).

I spoke at the Annual Banquet (black tie) of the Washington Society of Engineers held in the Grand Ballroom of the Mayflower Hotel. My talk, "Impact of Atomic Energy on Engineering," was very well received. (Wade N. Edmunds serves as president of the Society.)

Thursday, November 8, 1962 - Germantown

Hearing Examiner Bond has given a peculiar intermediate decision authorizing the Elk River (Minnesota) reactor to start operating before his regular decision is completed. The Commission spent much time discussing this and finally decided that the General Manager will not authorize the final loading until Bond finishes his regular (known as "initial") determination.

The Commission met with the MLC. We discussed future schedules for atmospheric testing. DOD favors an effects test program in the fall of 1964 and Betts of AEC

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

NOV 6 1962

OFFICE DIARY
GLENN T. SEABORG
Chr USAEC, 1961-72
FOLDER-PAGE 23032

Dear Ros:

As a result of discussion at a National Security Council meeting in August 1962, a further study has been made of the category of Restricted Data and the responsibilities and procedures for its transmission and protection under the Atomic Energy Act in the light of current circumstances. In the course of the study we have had informal discussions with representatives of the Department of Defense, Department of State, and the Bureau of the Budget, who have expressed the view that the present procedures are unnecessarily cumbersome and time consuming, and that they unduly complicate the conduct of our affairs particularly in disseminating information needed by our foreign Allies.

In examining the evolution of the law relating to atomic energy information, including the changes in 1954 and in 1958, we have been struck by the fact that the present provisions have reflected considerations by Congress not only of control of information but also the reach of Congressional review of atomic energy operations, whether by the Atomic Energy Commission or other agencies of the Executive Branch, questions of custody of atomic weapons, issues of civilian control, and continuing considerations of safety and security of atomic weapons wherever located and dispersed.

Events since 1958 may have substantially altered the considerations giving rise to these provisions of the law, but there are also indications that in the estimation of some members of the Joint Committee on Atomic Energy developments since then have served to underscore their importance. In this connection, careful consideration should be given to the Joint Committee's NATO report of February 1961, and subsequent hearings thereon, and to the current Joint Committee staff study on Defense Department security procedures and practices.

Therefore, before deciding what if any changes in the Atomic Energy Law should be proposed to The Congress, we believe it is important to be as precise as possible in identifying the respects in which the present practices impede our operations, and in determining the scope of the changes considered essential to improve the situation. Accordingly, we would like to obtain the views of the departments on the following questions:

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BY AUTHORITY OF DOE/OG
6/3/86
REVIEWED BY H.L. Hoppe DATE
L. Sofranski 6/4/86

410

OFFICE DIARY
GLENN T. SEABORG
Chr USAEC, 1961-72
FOLDER-PAGE 23033

1. How many of the specific problems currently encountered stem from the existence of the special category of restricted data in the field of atomic energy, as its present boundaries are defined, which are distinct from those that are likely to be encountered in transmitting and protecting any classified body of information relating to design of new weapons, operational plans, intelligence data, etc.?

2. Assuming the continued existence of the restricted data category for the control of information of major importance in the design and manufacture of atomic weapons, how many of the present difficulties could be resolved if the category of 'formerly restricted data' were eliminated?

   Under the present law, weapons utilization information can be removed from the restricted data category upon the joint determination of the Atomic Energy Commission and the Department of Defense that it can be adequately safeguarded as defense information. However, such transclassified information, which is labelled 'formerly restricted data', while transmitted and protected domestically as other defense information, can only be transmitted to foreign nations pursuant to a statutory agreement for cooperation which involves the same procedures and prerequisites as those agreements involving the transmission of restricted data.

   One obvious possibility that suggests itself is to maintain the present provisions providing for the transclassification of weapons use information to defense information, but to provide that hereafter it is to be handled both in international as well as domestic transmission and protection in the same way as other classified defense information of comparable importance. This could be accomplished by the elimination of the proviso in Section 142(d) of the Atomic Energy Act presently declaring that no defense information removed from the restricted data category can be transmitted to any nation or regional defense organization except pursuant to an agreement for cooperation under the procedures of Sections 123 and 144b of the Atomic Energy Act.

3. What steps are being taken or could be taken in the transmission and protection of defense information that would demonstrate that weapons utilization information, if it were handled like other defense information transmitted to our Allies, would receive comparable protection to that presently given restricted data and formerly restricted data?

OFFICE DIARY
GLENN T. SEABORG
Chr USAEC, 1961-72
FOLDER-PAGE 23034

4a. Are there procedural changes in the present provisions of the Atomic Energy Act relating to agreements for cooperation that would expedite their authorization and execution without eliminating the statutory requirement for such agreements?

4b. Short of a change in the law, how many of the difficulties now encountered in handling atomic weapons information could be substantially reduced by administrative improvements in the procedures presently employed in implementing the requirements of the law?

We believe that careful documentation of these matters are essential prerequisites to any proposal to reconsider the scope of the present provisions of the Atomic Energy Act relating to restricted data. We are asking our staff to discuss these questions with your staff during this week, and hope we can arrange a meeting with you early next week.

Sincerely,

(Signed) Glenn T. Seaborg

Chairman

Honorable Roswell L. Gilpatric
Deputy Secretary of Defense
Department of Defense

cc: Commissioner Wilson
Commissioner Haworth
Commissioner Ramey

JGPalfrey:dlh
11/5/62

412

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

COPY NO. 15

November 7, 1962

INFORMATION MEETING 211

9:50 a.m., Wednesday, November 7, 1962 - Chairman's Office, A-457

1. Chairman's Visit to Fernald and Evendale, Friday, November 9.

The Chairman said he would be pleased to have the Commissioners join him.

2. Recall of Mr. Ritzmann.

The General Manager said he had sent the Commissioners a memorandum on the matter.

3. Meeting with Bureau of the Budget Officials to Discuss Cost Plans.

The Chairman noted Mr. Staat's plans to meet with the Chairman, DoD officials and Dr. Wiesner next week. The General Manager said he would arrange to brief the Chairman prior to the meeting. (Ink)

4. Availability of a Small Reactor for Use at South Pole.

The Chairman discussed briefly Dr. Allen Waterman's inquiry re the availability of a portable reactor (500 EKW) and requested consideration for possible discussion with Congressman Holifield during the latter's visit to Antarctic.

5. Chairman's Discussion with Congressman Holifield.

The Chairman reported that he had telephoned Mr. Holifield and covered the following matters:

a. The Fermi Award;
b. Chairman's introduction of Senator Pastore at the Atomic Industrial Forum, November 27;
c. Antarctic trip - Mr. Holifield agreed it would be useful to have AEC representation;
d. Camp Pendleton site for the Southern California Edison project - Mr. Holifield had no problem with an extension of the November 15 deadline.

The General Manager added that he had suggested to Southern California Edison that they furnish additional information on sites surveys and request an extension of the November 15 deadline. (GM-Brown-Secy)

6. Commissioners' Meetings with Secretary Gilpatric and Deputy Under Secretary Alexis Johnson to Discuss Restricted Data Category.

The meetings have now been arranged for November 13, 2:30 p.m. with Under Secretary Johnson and 4:30 p.m. with Secretary Gilpatric. (GM-Secy)

The Chairman suggested Commissioner Palfrey and staff arrange the agenda for the meetings.

The Chairman noted that he had sent Mr. Bell, BoB, a copy of his letter of November 6 to Secretary Gilpatric and Under Secretary Johnson.

7. Fermi Award Ceremony.

Scheduled for December 3, 1962. (Secy)

8. Fermi Team Call on the President During the Atomic Industrial Forum Meeting, November 26-29, 1962.

The Chairman noted he had spoken to White House staff regarding the possibility of a visit.

9. Commissioner Ramey's November 3 Memorandum re Coming Events.

The Commissioners agreed the Secretary should issue an appropriate schedule of coming events of interest to the Commissioners. (Secy)

10. Chamber of Commerce Luncheon Meeting, November 16.

The Chairman said it would be desirable for the Commissioners to see the presentation that Mr. Tremmel is preparing. (Tremmel-Secy)

11. Congressman Price's October 18 Letter to Administrator Webb re Nuclear Power for Space Vehicles.

The Chairman noted receipt of a copy of the letter and said he had previously spoken to Dr. Seamans on the matter and Dr. Seamans said he would look into the possibilities.

12. Mr. Swidler"s (FPC) Favorable Comments on Draft Civilian Nuclear Power Report.

13. Chairman and Dr. Haworth's Attendance at Federal Council on Science and Technology Meeting, November 6.

The Chairman discussed briefly the comments on the natural resources reports by the National Academy of Sciences and the Federal Council on Science and Technology, and said that Dr. Haworth had had an opportunity to make a effective statement on the matter.

14. Proposed DRIBBLE Program.

The Commissioners agreed this matter should be discussed with Senator Stennis' staff and requested preparation of an appropriate letter to Mr. Bundy. (Ink-Betts)

15. Civilian Nuclear Power Report.

Dr. Haworth said he is circulating copies of the summary for the Commissioners' review and that he hoped other agency comments would be submitted by the end of the week, looking to transmittal to the President next week.

16. Letters re Status of the Atomic Energy Industry.

Mr. Ramey discussed briefly his previous conversation with Mr. Robbins, IAF, and Mr. Luntz re the problem of a healthy atomic energy industry and said he had circulated to the Commissioners copies of Messrs. Robbins' and Luntz' letters to him.

17. Uranium Procurement Stretch-Out Program.

The Chairman noted the call from the White House, reporting approval of the Commission's proposed program. (Brown-Clark)

18. Release of Information on PLOWSHARE Program.

The General Manager noted attempts would be made to hold the release program to low key but commented on the possibility of requests for more and more information. The Chairman requested that the White House staff be informed if the requests become excessive. (Ink)

19. Release of Fission Product Iodine (See 10/29/62 Letter from Dr. C. Starr, V.P., AI).

The Chairman suggested appropriate review of this matter. (GM-Price)

PRESENT

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

DISTRIBUTION

Commissioners
General Manager
General Counsel
Secretary

W. B. McCool
Secretary

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NOV 86

FEDERAL POWER COMMISSION
WASHINGTON 25

November 2, 1962

Dear Mr. Bell:

This is in response to your request of October 2, 1962, for the comments of the Federal Power Commission on the Atomic Energy Commission's draft report to the President on Civilian Nuclear Power dated September 15, 1962. As you know, FPC cooperated with AEC in the preparation of the draft report by supplying data with respect to prospective growth in electric power requirements, generating unit sizes, costs and efficiency, fossil fuel costs, and electric transmission costs for several voltage levels. I am glad to submit herewith the following comments on the report:

1. The report indicates the availability of fossil fuels in amounts ranging from an estimate of 28 to 30 "Q" on the low side to 130 "Q" on the high side depending upon assumptions as to developments in technology, costs, and an estimate of the effort to be devoted to recovering fuel from marginal resources. The lower figure is indicated to be roughly equivalent to accumulated total national energy requirements for about a century and the larger figure for such requirements for more than two centuries. On either assumption FPC concurs with the AEC that in view of the special value of the fossil fuel resources for many purposes for which other energy resources could not be substituted, it is in the national interest to conserve such resources. We believe that a nuclear reactor program designed to provide economical alternative energy sources has important value to the future of the country and warrants

The Honorable
David E. Bell, Director
Bureau of the Budget
Washington 25, D. C.

large research expenditures. Certainly the availability of economical energy sources other than from fossil fuels could become of importance beginning near the year 2000 and increasingly thereafter.

The 12-year program of research, prototype construction and large scale project development proposed by the Atomic Energy Commission appears to provide a reasonable framework for the advancement of nuclear generation of electric power. In view of the fact that the present models of nuclear reactors in themselves represent an inefficient use of fissionable materials and hold little promise of widespread attraction economically in competition with electric power generation from fossil fuels, we recommend minimization of financial commitments for such reactors and emphasis instead on high-conversion-ratio reactors and especially on the breeders which in effect multiply the use of uranium and thorium reserves by a factor of 100. It is the breeders which hold the promise of making a major contribution to our long-term energy supply. In making this recommendation, we are aware that there may be other considerations such as possible benefits in international relationships to justify expenditures for improvement in the present day reactor models.

The development of a strong element of nuclear power generation by 1990 or 2000 should give assurance that our supply of fossil fuels for nonburning needs will have a greatly extended life. Looking toward this objective it may seem that 25 to 35 years is an overly generous time for the perfection of economic nuclear generation. However, we note that 20 years of intensive effort have been required to perfect existing reactor types which use less than one percent of the energy potentially available from a given quantity of nuclear material. The "lead time" required for research and development, prototypes, and large-scale demonstration plants for high fuel conversion or breeder-type reactors may well

occupy a large part of the next 20 years or longer. It is urgent therefore that we move forward without delay and with special emphasis on this particular feature of the program which not only promises much lower generation costs but also vastly multiplies the efficiency with which our nuclear resources can be used.

2. The President's letter of March 17, 1962, to Chairman Seaborg, to which the AEC draft report is responsive, requested that the AEC study should be related to the National Power Survey which the Federal Power Commission is conducting to suggest the broad outline of possible programs of growth for all electric power companies to meet the great increase in future power needs with the greatest possible economy. Accordingly, in the discussion of the draft report in your office on October 17, I spoke of the relationship between the atomic reactor program envisaged by AEC and the research activities being carried on with respect to conventional power equipment. You asked that the Commission elaborate on this point in its written report and we are pleased to do so.

In the next 20 years the electric power industry will be adding approximately 400 million to 500 million kw of electric generating capacity at a cost in the order of $80 billion. Nuclear energy is not likely to provide more than two percent of the new capacity in the next ten years and the proportion of nuclear capacity is not likely to exceed ten percent within the next twenty years. Even by the year 2000 the draft report estimates only that a substantial fraction of the $900 billion which will have been spent to generate electrical power will hopefully be of nuclear origin. It is, therefore, apparent that for many decades ahead, improvements in conventional technology are likely to have far greater impact upon electric power costs than improvements in nuclear technology.

A radical improvement in the efficiency of conventional electric generating equipment would have at least as great

impact on the conservation of fossil fuels as acceleration of the progress in nuclear reactor development. As an illustration only, research now under way with magneto-hydrodynamic (MHD) generators suggests a substantial possibility for improving the efficiency in generation of conventional units by a factor which may be as much as 25 percent. MHD installations could be combined not only with new conventional generators but also as additions to existing generating units. They could also be combined with nuclear generation because they would provide for greater use of the heat energy for steam power generation and nuclear technology thus far has been devoted primarily to providing an alternative method of producing steam.

There are a variety of other promising so-called exotic methods of power generation which warrant more concentrated research. In addition the present stage of metallurgy is a limiting factor in the use of higher temperatures and pressures which would reduce the cost of generation by conventional means. There are also large additional opportunities for reducing the cost of delivered power by improvement in transmission equipment and in methods of transportation of fossil fuels.

Notwithstanding the large and relatively immediate opportunities for benefits from research and development expenditures in conventional power technology, the electric power industry spends relatively little on research on basic electric generating and transmission equipment other than on nuclear reactors. The electric power companies in the past placed their principal reliance for research on the electric equipment manufacturers, who in turn devote most of their R & D funds to areas where research is directly reimbursed, such as the atomic energy, missile and space programs. In recent years the electric power companies have carried on an increasing amount of research and development activities, but these are still modest and sporadic. R & D expenditures by the chemical industry, for example, account

roughly for 10 times as large a percentage of sales as for the electric power industry. The R & D expenditures for nuclear power development, which will constitute only a small fraction of the national power supply until well after 1980, dwarf all other R & D expenditures for electric power supply.

Throughout most of the world national growth is linked to growth in electric power development which in turn is still primarily related to conventional power technology. The maintenance of leadership in conventional power technology and transmission seems to this Commission to have as important international implications in the next generation as leadership in nuclear power technology. In this area the leadership of the United States is being strongly challenged by the technology which is being developed in France, Japan, Sweden, Switzerland, and the U.S.S.R., among others, for the most part based upon research conducted, sponsored or encouraged by the respective governments. In Extra High Voltage transmission, in particular, this country has fallen behind the work now being done in Sweden and the U.S.S.R. EHV technology frequently holds the key to the development of important energy resources which are remote from population and load centers. In our own country it is the key to making the most effective use of the energy and electric equipment resources of the entire North American Continent.

The Federal Power Commission recommends not that the reactor program be reduced but that it be considered in relation to the need for accelerated research and development of all equipment used for electric generation and transmission. This seems to the Commission the minimum breadth of perspective. If it were feasible to do so, it would be desirable to consider the expenditure in relation to research programs in the whole energy field, including the more efficient production of all fossil fuels, and their use for mobile equipment as well as power generation.

The Bureau of the Budget may wish to consider, and we recommend, the creation of machinery that would provide a means of weighing the relative advantages of various research and development activities in the electric power field and of encouraging a vigorous and balanced research program.

3. Nuclear plants are now being added on the systems of existing power suppliers and new nuclear units will become part of the established electric power systems of the country. It is of great importance that the full-scale nuclear power plants proposed by AEC should be fitted into the national power network in such a way as to contribute most effectively to the national power supply.

The FPC's National Power Survey Report, revised from time to time to reflect changing conditions and requirements in the industry, should provide a framework for fitting the nuclear plants into the national power complex in such a way as to achieve their maximum power benefits. The factors which govern the plant location and unit sizes which will be considered in the National Power Survey include the following: availability and multiple use of water resources; availability and costs of fossil fuel supplies; coordination of nuclear plant site locations with respect to pumped-storage sites; relation of nuclear power plant sites and sizes to Extra High Voltage transmission requirements; relation of nuclear power plant sites and sizes to system reserve requirements; relative economics of alternative sources of power supply; and advantages to be gained through interconnection of system facilities and coordination of operations.

Accordingly, we recommend that the Atomic Energy Commission advise and consult with the Federal Power Commission before decision is reached upon the location of commercial nuclear facilities. The FPC is, of course, aware that AEC must consider many program factors of its own before reaching a decision with respect to plant size

and location. The Federal Power Commission has no special interest in the location of prototypes which do not contribute to utility power supply. The Commission will of course be glad to continue to supply AEC with information concerning the cost of electricity from conventional power plants for economic comparisons with nuclear plants.

Sincerely,

Joseph C. Swidler

Joseph C. Swidler
Chairman

cc: The Honorable
Glenn T. Seaborg, Chairman
Atomic Energy Commission

The Honorable
Jerome B. Wiesner, Director
Office of Science and Technology
Executive Office of the President

TIONAL FORM NO. 10
5010-104

UNITED STATES GOVERNMENT

Memorandum

UNCL. BY DOE
NOV 86

TO : A. R. Luedecke, General Manager

DATE: November 8, 1962

Approved ARL
A. R. Luedecke
Date 11/8/62

FROM : W. B. McCool, Secretary Original signed
W. B. McCool

SUBJECT: ACTION SUMMARY OF MEETING 1889, WEDNESDAY, NOVEMBER 7, 1962
10:50 A.M., ROOM A-410, GERMANTOWN, MARYLAND

SECY:JCH

Commission Business

1. Minutes of 136th AEC-MLC Conference

Approved.

2. AEC 764/131 - Transmittal of Certain Atomic Information to NATO

Approved, as revised. (Betts)

The Commission requested the letter to the Secretary of Defense be revised as follows:

a. The phrase "until there is evidence that it has implemented the NATO Security Regulations" should be eliminated from the third sentence of paragraph 5;

b. Paragraph 6 should contain an appropriate reference to NASM-197, dated October 23;

c. An appropriate reference should be made to the Chairman's June 23, 1962 letter to the DOD re expanding the scope of the NATO agreement; and

d. The letter should contain some reference to possible interpretation of the information proposed for transmittal in paragraph 1b (11) of Appendix "H" and the extent of the Commission's determination with respect to this item.

The Commission further requested the letter to the Secretary of State contain an additional paragraph noting AEC's interpretation re dissemination to civilian NATO officials. (Betts)

3. AEC 1036/38 - Procurements by Stanford Linear Accelerator Center from Varian Associates

Approved. (Vinciguerra)

4. AEC 1111/1 - Negotiation of Extension of Contract with Atomics International

Approved. (Vinciguerra)

5. AEC 1084/9 - AEC Procurement Regulations Concerning Conduct of Employees and Consultants of AEC Cost-Type Contractors and Certain Other Contractors

Deferred.

The Commission requested rescheduling after review with interested Commissioners. (Bloch/Secretary).

6. AEC 132/58 - Report of the Division of Inspection

Noted.

7. Briefing on AEC Manpower Utilization

The additional report is to be circulated. (Tackman)

I will reschedule this briefing for Wednesday, November 14.

Item of Information

Discussion of Commissioners' European Visits

Scheduled for luncheon, Thursday, November 8, Germantown.

favors a program of developmental tests in the fall of 1963. We also discussed the Restricted Data problem. The MLC members attending were: Gerald Johnson (Chairman), Major General Broadhurst (Air Force), Major General Richardson (Army), Brigadier General Ryder (Army), Captain Conrad and Captain Ramage.

Kaysen called and said, now that the U.S. tests are completed and the USSR tests are drawing to a close, the President is interested in an evaluation of the results. In conversation with Bundy, the thought was generated that perhaps a committee should be organized, consisting of one representative from AEC, DOD, CIA, plus Jerry Wiesner. This committee would not take over the functions of existing groups, such as the Bethe Panel, but rather would pull together inputs from all these sources to produce one comprehensive report for the President which would answer the questions: what have we learned from our tests, what have the Russians learned, the significance, etc. I asked whether the committee would be asked to address itself to the necessity of further tests. He said that this would be a very important input for consideration, but the Committee itself would not be charged with this responsibility. I asked whether there would be any representation from the White House. Kaysen said that, except for Wiesner, they would not come into the picture until it is time to see what should be done with the document. He has already talked with Gilpatric (in McNamara's absence) and with McCone, and both agreed this committee would be a good idea, and they named as their representatives Harold Brown and Dr. Herbert Scoville, respectively. He asked my opinion, and, if I agree, whom I would designate to represent the AEC. He hoped it would be Dr. Haworth. I agreed that such a committee could provide a very useful function and said that Dr. Haworth would be my choice too; however, I would check to be sure he could take on this project. He emphasized that the job is <u>not</u> to supersede the existing machinery but to draw together the output of all sources and consolidate it so that the President will have only one report containing all the views. As to the timing, this will not be a crash program, but, on the other hand, neither is it expected to proceed at a leisurely pace. The Committee should be organized immediately, should start functioning and should present its report to the President at the earliest appropriate time. Kaysen said that shortly there will be a NSAM addressed to McNamara, McCone, and me, putting all this in writing.

I wrote (copy attached) to Gerald Hagar, Chairman, University of California Regents, complimenting him and the Board of Regents on plans for the Lawrence Hall of Science.

Dr. John Dunning called and said while he is in Washington he had hoped to see me, which isn't possible because today I am in Germantown and will be out of my office tomorrow. He wanted to discuss the general research policy of the AEC, and, in particular, atomic power matters. He said this can wait until we can get together. A second matter, which concerned him greatly, is the question of getting his case before the Patent Compensation Board for a hearing. Pre-hearing discussions have been held and have been only moderately productive. Since this has been dragging on since 1952 or 1954, when the first filing was made, he is concerned that it might drag on for another five years. Also, he said that he has already spent over $50,000. I explained that the Commission is supposed to stay out of these matters; but, in view of the great length of time that has already expired and the money spent, I would try to see why the matter is dragging and why it hasn't come to a hearing.

The other Commissioners and I had lunch in the Executive Dining Room. Commissioners Wilson, Ramey and I gave reports on our visits to atomic energy sites, etc., during our recent trips to Europe. We discussed further the civilian nuclear power report.

November 8, 1962

Dear Regent Hagar:

I would like to take this opportunity to congratulate you and the other members of the Board of Regents on your selection of a unique and exciting architectural plan for the Lawrence Hall of Science. I am sure that, from the number of excellent plans submitted, it must have been a difficult choice.

The building's striking attractiveness and functional design will provide a revolutionary center for scientific learning. The site for the Hall of Science, ideally situated above the Lawrence Radiation Laboratory on the hills of the Berkeley campus, will provide the needed space and equipment for nationwide projects in scientific research, programed teaching and large scale education.

The University of California, with its many Nobel Laureates on the Berkeley campus, and its position of educational and research leadership, is an outstanding location for the Hall of Science.

This project is certainly a meaningful and appropriate tribute to a great American scientist and Nobel Laureate, Ernest O. Lawrence.

Sincerely yours,

Glenn T. Seaborg

Glenn T. Seaborg

Mr. Gerald H. Hagar
Chairman of the Board of Regents
of the University of California
1520 Central Building
14th & Broadway
Oakland 12, California

bcc: Dr. Harvey E. White

Friday, November 9, 1962 - Washington - Cincinnati

Accompanied by Arnie Fritsch, Vic Schmidt and Jim Hill, I flew to Cincinnati on a MATS plane, leaving Andrews AFB at 9:45 a.m. and arriving at 11:40 a.m. We were met by C. L. Karl (head of the AEC office).

We drove to the Fernald Plant, which is operated by the National Lead Company of Ohio. We had lunch and then were shown the operation (conversion of UO_3 to UF_4, reduction to metal, rolling of metal, etc.) by J. H. Noyes (Plant Manager), Nelson (Assistant Plant Manager), C. R. Chapman (General Superintendent), S. Marshall (Technical Director) and Karl.

Then Karl and Warner (his assistant) drove us to Evendale, where we toured the Materials High Temperature Laboratory, were briefed on the gas-cooled maritime reactor and the fast gas-cooled compact reactor (for space applications, etc.). Our hosts were W. H. Long (Manager), V. P. Calkins (Manager, Nuclear Materials), B. Blumberg and R. W. Brisken.

Then Karl drove us to the Netherland-Hilton Hotel in Cincinnati, to attend a black tie annual dinner in the Pavillion Caprice Room, after which I gave the Charles L. Harrison Award Address before the Cincinnati Post of the American Ordinance Association, after receiving the Charles L. Harrison Award. I gave my talk, "Atomic Power in Space," before an audience of some 500 people. David A. Meeker, president, presided and Frederick V. Geier and Harvey C. Knowles participated in the presentation of the Award..

We flew back to Washington (Andrews AFB) on a MATS plane, leaving at 10 p.m. and arriving at 12:45 a.m. The weather was very bad and we had a rough landing at Andrews.

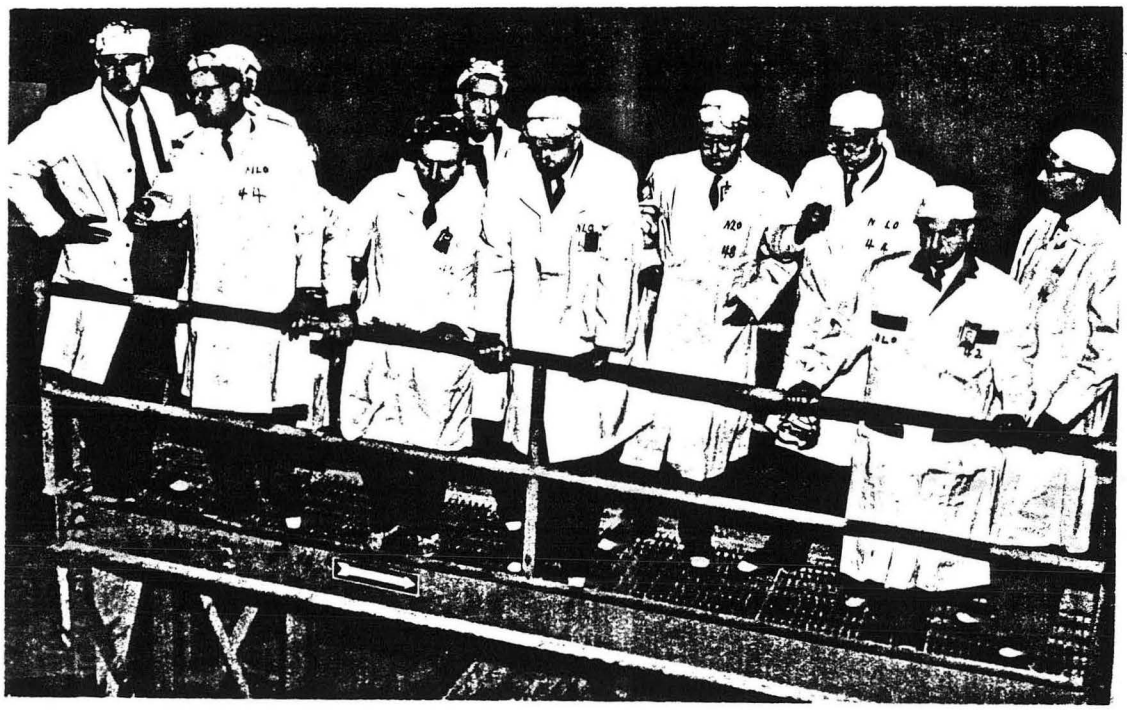
Saturday, November 10, 1962 - D.C.

From 10:00 to 11:30 a.m. I attended a meeting of the Principals in the Secretary of State's Conference Room. Present were Rusk, Foster, Fisher, Haworth, Wiesner, Keeny, Nitze, McNamara, Taylor, Kaysen, Wilson, Barber, Marengo, General Smith, George Kavanagh, Captain Zumwalt and others. Rusk opened the meeting, saying that the position of the U.S. in future disarmament negotiations depends very much on whether the Russians adhere to the Cuban agreement. He said that, nevertheless, we should continue the test ban negotiations and pursue the possibility of excluding nuclear weapons in various parts of the world. In the latter connection, it might be worthwhile to carry it to the point where it would be possible to find out Red China's position. The Germans are also a key in this; apparently what they mainly want is at least parity with the U.K. and France.

McNamara indicated that we should do anything on disarmament.

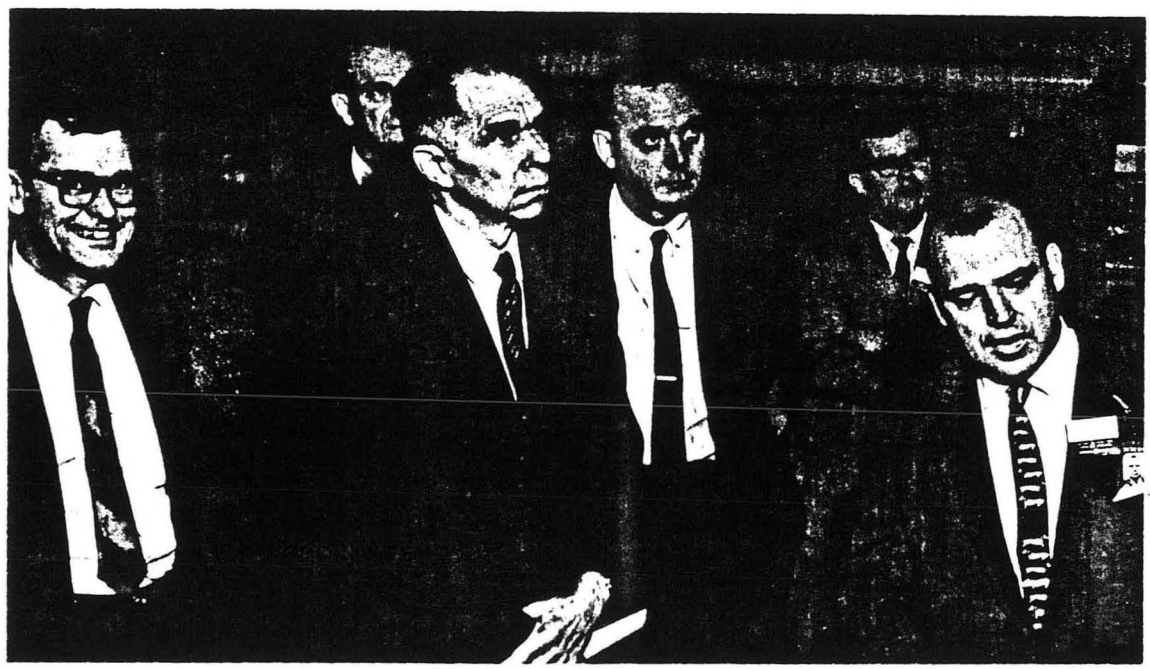
Foster said that he recognizes that, if the Cuban agreement is not carried out, there is no sense in trying for a more extensive agreement depending on verification. However, he said that Gromyko's new position, recently stated, on reducing weapons to a level of equal deterrent seems to offer some hope, and the present position of arms build-up is a precarious position that we should try to improve.

Rusk inquired about the recent Institute of Defense Analysis report on the relative missile strength of the U.S. and the USSR, and Wiesner and others responded that this overestimated the U.S. and underestimated the Soviet strength.



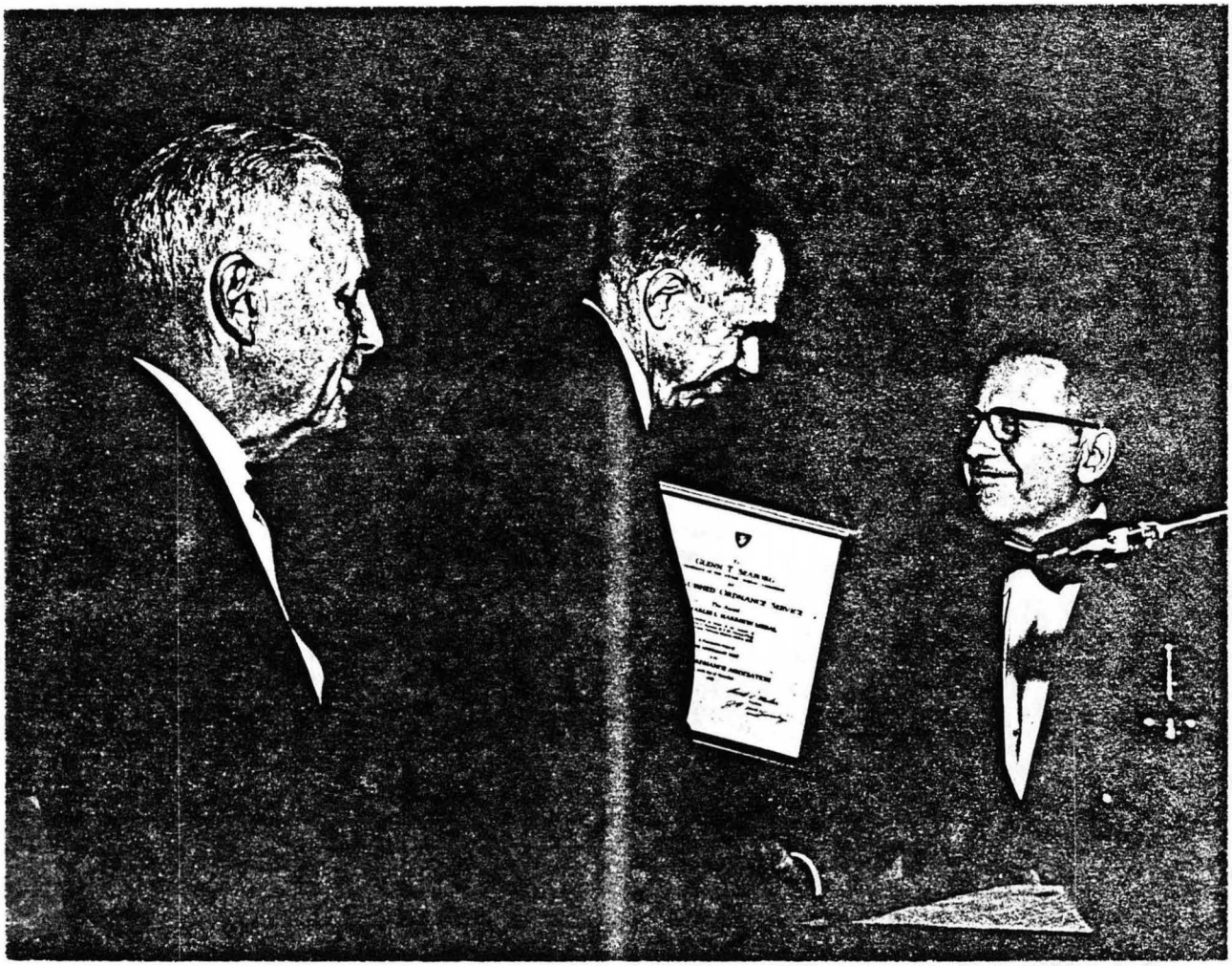
Seaborg visit to Feed Materials Production Center, Fernald, Ohio, November 9, 1962

L to R: Colonel James H. Hill, W. T. Warner, Operations Branch Chief; Robert M. Spenceley, Superintendent of Metals Fabrication Plant, National Lead Co.; McDonald S. Nelson, Assistant Plant Manager; Seaborg; Shadburn Marshall, Technical Director; Arnold R. Fritsch; Clarence L. Karl, Area Manager; James H. Noyes, Plant Manager, National Lead



Visjt of Seaborg to GE-NMPO Installation, Evendale, Ohio, November 9, 1962

L to R: Warner, Deputy Manager, Cincinnati Area Office; Seaborg; Arnold Fritsch, Chairman's Office; Vince Calkins



Seaborg receives Charles L. Harrison Award for 1962 from Cincinnati Post, American Ordnance Association, Netherland Hilton Hotel, Cincinnati, Ohio, November 9, 1962

L to R: Harvey Knowles, Seaborg, Frederick V. Geier

Taylor raised the question as how we could estimate the initial Soviet strength on which the 30% reduction would be based and received the answer that this would be based on unilateral intelligence and comparison with the Russian declarations of reduction. Taylor raised the possibility of trading off with the USSR on weapons that we don't have. For example, anti-missile systems which could be verified.

The general conclusion seemed to be that the U.S. would investigate Gromyko's concept of weapons reduction to some level of equal deterrent, and would be ready to discuss making some differential reductions. These differential reductions might mean that the U.S. would reduce more in missiles and weapons and the Soviets more in shorter-range missiles and conventional forces.

Rusk next raised the question of a reduction in fissionable material. He pointed out that the Soviets are reluctant to admit a disparity in this connection, which might make it hard for us to reduce by a larger amount than they. He also suggested that we start with a 60-40 differential reduction as a negotiating position (i.e., the U.S. would offer to reduce 60,000 kg. of U-235, if the Soviets would reduce 40,000 kg.). I pointed out that the cut-off of production is the most important aspect of this, which may have been lost sight of in the discussions of these differential reductions.

The reduction in bases was discussed next. The conclusion was to change the instructions so as to make it possible for our negotiators to discuss reduction in bases, depending on concomitant progress of armed forces and armaments. McNamara suggested that a plan for reduction of bases be ready in about 90 days.

I returned the discussion to the question of reduction of fissionable material and pointed out that the staff paper mentioned the possibility of doing this through dismantling of weapons containing U-235. After some discussion, it was decided to make this reduction only through the transfer of fissionable material (not from weapons) to peaceful purposes in the suggested ratio (presumably, with the U.S. transferring somewhat more than the USSR), and with emphasis on the cut-off of production. Next, the question of reduction in military expenditure was discussed, and it was decided that this was more important as an instrument of verification than as a goal in its own right.

Finally, the destruction of medium jet bombers was discussed, and the proposal in the staff report was found acceptable.

I then attended a PSAC panel meeting in the Executive Office Building. Included among those present were Calvin, Doty, Piore, Bardeen, Spof English and Paul McDaniel. The discussion was on governmental support of basic research, the future level of the program, coordination, etc.

I worked in the office until 4 p.m. signing letters, working on papers, etc.

Sunday, November 11, 1962

I worked on AEC papers and read journals.

Eric, Steve and I played a few holes of golf at the Chevy Chase Club; this was Eric's first game of golf.

Monday, November 12, 1962 - Holiday

I worked at home on the 1962 AEC Annual Report.

I had lunch with President Charles Odegaard of the University of Washington at the Cosmos Club. We discussed the lack of progress in the Kennedy Administration in providing overall financial support to universities. It remains (for science) piecemeal by project as before.

Dave, Steve and I played a few holes of golf at the Chevy Chase Club.

In the evening Helen and I attended a reception given by Swedish Ambassador and Mrs. Gunnar Jarring at the Shoreham Hotel to celebrate the 80th birthday of the King of Sweden. There were over 500 guests present.

Tuesday, November 13, 1962 - D.C.

At 10:45 a.m. I presided over Information Meeting 213 (notes attached). We discussed McNamara's request for acceleration of work on weapons for low-level delivery vehicles, the highly confidential panel (Haworth, AEC representative) which will evaluate the U.S. and USSR test results, and the delay in the KIWI B-4A test due to technical difficulties.

I met with Harry Wellman (Vice President, University of California) and invited him to the luncheon which I hosted later at the Statler Hotel for Professor Felice Ippolito (Secretary General, Italian National Commissioner for Nuclear Energy [CNEN]). Others present included Achille Albonetti (CNEN), Roberto Levi (CNEN), Roberto Cangiano (Washington Representative, CNEN), Commissioners Wilson, Palfrey and Ramey, Hollingsworth, Wells, Hennessey, Vander Weyden, Kratzer, Henderson, Carl Thomas (State), and Rollefson (State).

The Commission met with Alexis Johnson and Dana Orwick of the State Department to discuss their problems which may require revision of the method of handling Restricted Data. Apparently their problems are not serious.

I sent letters (copies attached) to Rusk and McNamara joining in the determination that information can be communicated to NATO civilians on the utilization of nuclear weapons (CABAL) since this will promote defense and security and will not reveal important design information on weapons.

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

Wednesday, November 14, 1962 - Germantown

At 10 a.m. Professor Ippolito and I signed the U.S. Italian Agreement covering the Italian processing of fuel elements for the Elk River Reactor in the presence of his staff and the Commissioners.

At 10:30 a.m. I presided over Commission Meeting 1890 (action summary attached). We discussed the possibility of building a community--Aurora--near the Nevada Test Site. We will consider this further before making a decision.

I had lunch in the cafeteria with Hilliard Roderick and Arnie Fritsch. We discussed UNESCO problems, with emphasis on its lack of effectiveness.

I called Governor Pat Brown, Mayor George Christopher and Clark Kerr, inviting them to participate in ceremonies welcoming the NS Savannah to San Francisco next

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

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November 13, 1962

INFORMATION MEETING 213

10:45 a.m., Tuesday, November 13, 1962 - Chairman's Office, D. C.

1. Visit of Mr. Harry R. Wellman, Vice President, University of California.

The Chairman noted Mr. Wellman had come in to see the Commissioners and that he had invited him to join them for lunch.

2. Member of General Advisory Committee.

The Chairman said the Commissioners had this matter under consideration. (Brown)

3. Chairman's Attendance at Welcoming Ceremonies for the N.S. SAVANNAH, Monday, November 19, San Francisco.

The Chairman said he would consider whether this could be included in his schedule.

4. Planning Calendar and Schedule of Events.

The Commissioners commented on the usefulness of the planning calendar and the schedule of events. (Secy)

5. Commissioner Ramey's Visit to Chicago to Attend December 1 Ceremony.

6. Use of SNAP Devices in the Space Program.

The Chairman commented on his previous discussion with Dr. Seamans, NASA, in regard to the advantages of the use of isotopic devices in the space program and suggested preparation of a letter to Mr. Webb. The General Manager said this matter is in review and a proposed letter will be submitted shortly. (Pittman)

7. Uranium Procurement Stretch-Out Program (NASM 202).

The Chairman noted receipt of the Council memorandum and said he would sign the letter to Chairman Holifield subject to the Commissioners' comments today. The General Manager said all arrangements look to announcement on November 17. (Johnson-Clark)

8. Secretary Gilpatric's November 7 Letter re Status of Weapons Study.

The General Manager noted Secretary Gilpatric's request for BoB release of the $23 million and the General Manager said it was important to move rapidly on this matter. (Abbadessa-Betts)

9. Letter of November 9 from Secretary McNamara re Modification of Certain Weapons.

The Chairman requested preparation of an early response. (Betts)

10. Delay in KIWI B-4-A Tests at Rover Test Site.

11. Reply to Senator Jackson and Congressman Holifield re Cancellation of Byrd Reactor Project.

The General Manager reported a letter is in preparation for early Commission review. (Vinciguerra-Pittman)

12. Letter to Congressman Holifield re Price Anderson Coverage of U.S. Flag Vessels.

The Chairman said he had signed the letter. (Brown)

13. Letter to Mr. Bundy re STORAX II Series Substitution.

The Chairman noted problems of the use of some PLOWSHARE funds for the Anacostia Event and the related problem of a public announcement on the event. The Commissioners agreed there should be no public announcement and the Chairman requested an additional review of the funding to determine whether PLOWSHARE funds should be used in partial support of this event. (Betts)

14. Letter to President re Contracts with Small Business.

The Chairman suggested Commissioner Ramey review the proposed reply.

15. Letters to Secretaries Rusk and McNamara re CABAL Procedures.

16. Letter to DoD re Nuclear Weapons Effects Agreement.

The Chairman said he would sign the letter and the Commissioners requested a briefing on this matter. (Betts-Secy)

17. Extension of Deadline Date for Submission of Proposal by Southern California Edison.

The General Manager recommended and the Commission agreed to an extension from November 15, 1962 to January 3, 1963. The General Manager said he would inform the Joint Committee. (Pittman-Clark)

18. Meeting with Utilities Representatives to Discuss Power Reactor Program.

The Commissioners will meet with the staff Thursday, 4:00 p.m., November 15, Germantown, and requested a meeting with Jersey Central Power and Light Company representatives on Tuesday, November 20. (Pittman-Secy)

19. Elk River Power Demonstration Reactor Project.

The General Manager reported that he had reviewed the findings of the Division of Licensing and Regulation, the hazards analysis reports and other pertinent documents. Present planning calls for loading and operating the reactor as a zero power criticality experiment for a period of six-eight weeks. The General Manager recommended that the Commission authorize him to issue an authorization for such loading and criticality tests without authorization to install the reactor vessel head.

In response to the Chairman's query, Mr. Kingsley said that his recommendations on appropriate procedure in this matter were contained in the draft memorandum and order which he discussed with the Commission on Thursday, November 8. Commissioners Ramey and Palfrey commented that prudence would say that operation at zero power is acceptable, subject to 24-hour notice to the Commission prior to any planned operation at higher power. The Commission agreed to this course of action.

Commissioner Ramey noted the desirability to accelerate Commission review of the Hearing Examiner's early forthcoming Initial Decision. The General Manager said he would proceed as instructed and would report to the Commission prior to installation of the reactor head and planned authorization for operation at higher power. (Pittman)

20. McMurdo Sound Reactor Shutdown.

The General Manager reported on the equipment failures and repair last week and said the reactor was now back in operation. Mr. Ramey requested a report on safety review and other procedures with respect to the reactor. (Pittman)

21. Commission Review of ACRS Consideration of N.S. SAVANNAH Operations.

The General Manager urged that the Commission consider this matter on Friday, November 16. (Secy)

PRESENT		DISTRIBUTION
Dr. Seaborg	Gen. Luedecke	Commissioners
Dr. Haworth	Mr. Hollingsworth	General Manager
Mr. Ramey	Mr. Ferguson	General Counsel
Mr. Palfrey	Mr. Kingsley*	Secretary
	Mr. Brown	
	Mr. McCool	

W. B. McCool
Secretary

* Attendance Items 19, 20

901452

OFFICE DIARY GT FILE
GLENN T. SEABORG
Chr USAEC, 1961-72
FOLDER-PAGE 23106

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

11/13/62

Dear Mr. Rusk:

BEST COPY AVAILABLE

Certain security regulations known as the CABAL procedures have been developed for the protection of Restricted Data information to be disseminated under the NATO Defense Data Program. Section 21 of these regulations requires that security inspections be made of the application of the CABAL procedures in all NATO countries.

The Commission believes that it would be highly desirable for the United States to receive copies of NATO reports of these security inspections and requests that you seek the agreement of the North Atlantic Council to an arrangement whereby countries providing information under the CABAL program will be furnished copies of these reports. These inspection reports will enable us to better understand the adequacy of the implementation of the agreed upon security measures and will be of assistance to the Commission in making determinations under Executive Order 10841.

The CABAL procedures as revised by your representatives and those of the Commission and the Department of Defense limit the dissemination of U. S. atomic information to specific individuals on the civilian side of the governments of NATO member nations. These individuals would appear to require access to this information in order that the North Atlantic Council may perform its functions. In this connection, the Agreement for Cooperation with NATO provides that information will not be communicated "beyond the jurisdiction of NATO". In view of the aforementioned need in connection with the performance of NATO functions, we have concluded that communication of atomic information to such individuals would appear to be reasonably within the limitations of the Agreement mentioned above. At the same time in Mr. Ink's letter of August 22, 1962 to Mr. Kitchen we called attention to the fact that the emphasis in the past has been on limiting communications to NATO to communications through the military element of NATO and the Joint Committee on Atomic Energy had been so informed.

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6/3/86
REVIEWED BY DATE
J. Kofonde 6/12/86

OFFICE DIARY
GLENN T. SEABORG
Chr USAEC, 1961-72
FOLDER-PAGE 23107

We also urged that the Joint Committee be informed of this interpretation of the Agreement for Cooperation with NATO before final action was taken on this program. The Commission still considers this procedure most desirable.

I am enclosing a copy of my letter to the Secretary of Defense on this subject.

Sincerely yours,

(Signed) Glenn T. Seaborg

Chairman

The Honorable Dean Rusk
Secretary of State

Enclosure:
Cy SA, ltr Seaborg
to Rusk

901453

GT FILE

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

NOV 13 1962

OFFICE DIARY
GLENN T. SEABORG
Chr USAEC, 1961-72
FOLDER-PAGE 23108

Dear Mr. McNamara:

This is in reply to the Deputy Secretary of Defense's letter of September 22, 1962, which requested the Commission to join in a determination that the communication of certain atomic information described in Enclosure 1 of the Deputy Secretary of Defense's letter of September 22, 1962, to the North Atlantic Council, Military Committee, Standing Group, NATO and possibly other NATO organizations and individuals, will promote and will not constitute an unreasonable risk to the common defense and security and, further, determine that this proposed communication will not reveal important information concerning the design or fabrication of the nuclear components of an atomic weapon. With the exception of NATO military personnel who have a need-to-know, we understand that the above reference to other NATO organizations and individuals is intended to include only those organizations or individuals identified in the revisions to the GSEAL procedures which were prepared by representatives of the Department of Defense, State, and the Commission.

The Commission understands from the Deputy Secretary of Defense's letter that the release of this information to NATO is required in order to implement National Security Action Memorandum (NSAM) 147 to encourage more participation by NATO nations in establishing NATO strategy by providing adequate knowledge for such participation. ?

In its review of the information proposed for communication to NATO, the Commission has concluded that a relatively small portion of the information does not qualify for communication under the NATO Agreement for Cooperation. This information is indicated in the enclosure to this letter. The Commission considers that the information involved either may not be communicated under the provisions of the 1954 Atomic

REVIEWED BY 3/8/89 DATE
* Ltr. NSC Grabeske To DOE, OCTP Siebert dated 2/13/89
** DOD Ltr. To DOE, OC dated 9/1/87

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which are applicable to that Agreement, or, is not within the scope of the Technical Annex to that Agreement which, as you know, has not been amended to take advantage of the more extensive cooperation authorized by the 1958 amendments to the Atomic Energy Act.

With respect to the remainder of the atomic information (that is, the information not deleted or qualified in the enclosure), as well as the statement concerning NAVY CONCEPT, which is included in the enclosure, as requested orally by the Department of Defense staff, the Commission has determined that the proposed cooperation and the proposed communication of such information will promote and will not constitute an unreasonable risk to the common defense and security. The Commission has also determined that such information will not reveal important information concerning the design or fabrication of the nuclear components of an atomic weapon.

The first determination mentioned above will be effective when the U. S. Permanent Representative has been assured by the NATO Security Bureau that the member nations which will receive U. S. atomic information have implemented the CABAL procedures as proposed for revision by representatives of the Departments of Defense and State and the Commission. This qualification is considered necessary because the Commission has been informed by your representatives that there is no practical way to limit the access of representatives of any country to only a portion of the information that it is contemplated the United States will communicate in the NATO Defense Data Program (NDDP). We are aware that the effect of this qualification may be that Iceland will be unable to receive atomic information included in the NDDP. It is our hope that Iceland will be able to demonstrate that it has taken the necessary steps to fulfill its commitments to NATO with respect to safeguarding classified information. We also recognize that there may be other factors of national policy beyond the cognizance of AEC which the President may need to consider in determining whether NATO member nations should be given access to atomic information under the NDDP even though they have not adopted security systems consistent with their commitments to NATO.

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Communication of the information described in items 1b.(4) and 1b.(5), with respect to dispersal of weapons, has been conditioned in accordance with National Security Action Memorandum 197.

The Commission has included in its determination item 1b.(10) concerning how the yields of the MK-45 and the MK-57 are varied and item 1b.(11) concerning the Polaris A-3 re-entry system. This was done with the understanding that these items should not be expanded to include information that could lead knowledgeable individuals to deductions regarding "boosting" and [redacted]

In view of the restrictions that have been encountered, and will be encountered, in going forward with the MDBP under the present NATO Agreement for Cooperation, you may wish to consider proceeding with a new NATO Agreement for Cooperation which could be negotiated under the provisions of the 1958 amendments to the Atomic Energy Act. In this connection, in my letter of June 23, 1962, to the Assistant to the Secretary of Defense for Atomic Energy, I inquired as to the justification for amending the NATO Agreement. It would appear that restrictions already encountered may justify amending the present Agreement.

Because of Department of State interest in the proposed program, a copy of this letter is being provided to the Secretary of State.

Sincerely yours,

Glenn T. Seaborg

Chairman

The Honorable Robert S. McNamara
The Secretary of Defense

Enclosure:
Cys 1A and 2A, Atomic Information
Proposed for NATO

cc: The Honorable Dean Rusk
The Secretary of State
(without enclosure)

C O P Y RETYPED FROM COPY 7/17/79

November 13, 1962

~~PERSONAL AND CONFIDENTIAL~~

901455

OFFICE DIARY
GLENN T. SEABORG
Chr USAEC, 1961-72
FOLDER-PAGE 23115

Dear Mr. President:

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

1. Nevada Community

At the present time all of the test activities associated with the AEC-NASA nuclear space propulsion systems (ROVER) are centered at the Nevada Test Site and employees who are engaged on this program are commuting 180 to 200 miles a day. While funds have now been made available in this fiscal year for improving U.S. Highway 95 from Las Vegas to the test site, the improved highway alone will not alleviate the four-hour daily commuting time. In view of the importance of this program to our space effort, the Commission, in conjunction with the National Aeronautics and Space Administration, has under consideration construction of a community near the Nevada Test Site. The estimated initial cost for a community is in excess of 40 million dollars.

An intensive study was made of moving the test site, but this was not considered feasible. Air and rail transportation methods and other alternatives are being considered but they may not offer permanent solutions.

At Joint Committee on Atomic Energy Hearings on the ROVER program in September, ROVER contractor representatives, Dr. Norris Bradbury, Los Alamos Scientific Laboratory, Dr. Sidney Krasik, Westinghouse, Mr. William House, Vice-President, Aerojet-General Corporation, and Dr. von Braun and Mr. Finger of NASA, gave testimony strongly favoring the establishment of a community near the test site. The Commission intends to formally consider the question tomorrow, Wednesday, November 14. If the decision is taken to proceed, your approval and that of the Bureau of the Budget and the Congress will be required. A supplemental appropriation would be involved.

Preliminary studies on the establishment of a community are being made on the assumption that private developers will participate in the construction of a community to the maximum extent feasible.

CLASSIFICATION CANCELLED
WITH DELETIONS
BY AUTHORITY OF DOE/OC
H L Hoppe 6/5/86
REVIEWED BY H L HOPPE DATE
L. Lefranch 6/12/86

2. Operation DOMINIC (Atmospheric Weapons Tests) - Pacific

Five atmospheric nuclear weapons tests were conducted in the Pacific, based on Johnston Island, during the period October 20 to November 4, 1962, ending Operation DOMINIC. Three of these were high altitude tests and two were air dropped devices. Two of these high altitude tests were BLUEGILL TRIPLE PRIME and KINGFISH conducted on October 26 and November 1, 1962, at [redacted] kilometer altitudes, respectively. Both events utilized THOR rockets and the [redacted] The third high altitude event was TIGHTROPE, on November 4. A NIKE HERCULES rocket delivered the [redacted] warhead to its burst height of [redacted] kilometers with [redacted] nominal accuracy and nominal yield [redacted]

DELETED

The two air drops were CALAMITY and HOUSATONIC conducted on October 27 and 31, respectively. CALAMITY was a test of the LRL [redacted] device with an expected yield of [redacted] Actual yield was [redacted] HOUSATONIC was a retest of the LRL [redacted] device previously

DELETED

DELETED

With the completion of Operation DOMINIC, roll-up operations are in progress and the Headquarters of Joint Task Force Eight became operational in Barton Hall, Washington, D.C. at 2:00 P.M. EST, November 9, 1962.

3. Operation STORAX (Underground Weapons Tests) - Nevada Test Site ~~(Secret Restricted Data)~~

The Operation STORAX nuclear tests scheduled to be detonated at the Nevada Test Site during the month of November will all be underground and are as follows:

Date	Nickname	Sponsor	Device	Yield (KT
11/16	ANACOSTIA	LRL		
11/16	GUNDI	LASL	DELETED	DELETED
11/30	TAUNTON	LRL		

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Chr USAEC, 1961-72
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4. Status of Proposal for Private Fuel Processing Plant

At present there is no private industrial capability for the processing of irradiated fuel elements. Nuclear Fuel Services, Inc., a new corporation formed by W. R. Grace & Company and the American Machine & Foundry Company, has now formally proposed to design, construct and operate a privately-financed plant for processing spent fuel elements from private reactors at a location in Cattauragas County, New York. This would be a significant step forward in the Commission program to foster a wholly independent nuclear industry in this country and if this venture is successful, only the uranium enrichment processes would remain without private capability.

The proposal by Nuclear Fuel Services, Inc. is contingent upon certain arrangements, including a contract with the AEC that would provide a base fuel load for the initial five years of plant operation. The AEC, on the basis of information submitted, is proceeding with the negotiation of a base load contract with Nuclear Fuel Services, Inc.

5. Visit to AEC Production Sites

I recently had opportunity to visit several of the production facilities of the AEC. On October 30 and 31, I inspected the gaseous diffusion cascades and the Y-12 plant at Oak Ridge, Tennessee. These facilities form a substantial part of our national capability for the enrichment of uranium-235, enrichment of lithium 6 and the fabrication of weapons material and components. In addition, I also visited the Oak Ridge National Laboratory and other AEC-sponsored research and development facilities in the area.

On November 9, I inspected the Fernald Feed Materials Production Center near Cincinnati, Ohio, which is the primary fabricator of fuel elements for the AEC's production reactors at Savannah River and Hanford. I also visited the General Electric Evandale plant which is conducting a significant program in the research and development on materials for high temperature applications.

Respectfully submitted,

OFFICE DIARY
GLENN T. SEABORG
Chr USAEC, 1961-72
FOLDER-PAGE 23117

Glenn T. Seaborg

The President
The White House

OPTIONAL FORM NO. 10
5010-104
UNITED STATES GOVERNMENT

D. C. Files

DECL. BY DOE
NOV 86

Memorandum

TO : R. E. Hollingsworth, Acting General Manager DATE November 14, 1962

Approved R.E. Hollingsworth

FROM : W. B. McCool, Secretary Original signed W. B. McCool

Date 11/15/62

SUBJECT: ACTION SUMMARY OF MEETING 1890, WEDNESDAY, NOVEMBER 14, 1962, 10:30 A.M., ROOM A-410, GERMANTOWN, MARYLAND

SECY: PAL

Executive Session

1. Report on Cuba

2. Farewell Visit of British Ambassador

3. British Espionage Case

Commissioner Ramey requested review of possible involvement of Restricted Data. (Reichardt)

4. NRTS Incident

5. McMurdo Sound Reactor

Commission Business

1. Minutes of Meetings 1866, 1867 and 1868

Approved as revised.

2. AEC 1123 - Community Plan for Nevada Test Site

Deferred.

The Commission requested preparation of additional cost data and further review at an early date. (Ohlke-Secretary)

3. AEC 1095/16 - Federal Agency Survey of Research and Development Levels Projected to 1970, and
AEC 1095/17 - (Supplement to AEC 1095/16)

Deferred.

The Commission requested revision of the projections for the Civilian Power Program to be consistent with the figures included in the draft Civilian Nuclear Power Report. (Slaton)

I will reschedule AEC 1095/16 and AEC 1095/17 for further consideration at an early date.

4. Briefing on AEC Manpower Utilization

Deferred.

5. Presentation by Division of Industrial Participation

Noted.

The Commission requested appropriate revisions in the slides prior to presentation at the luncheon. (Tremmel)

The Commission requested consideration of methods of stimulating more contracts with Small Business. (Tremmel)

The Chairman requested the Commission be informed of any future meetings with Field Representatives of the Division of Industrial Participation. (Tremmel)

6. Joint AEC-MA Group Report re N. S. SAVANNAH's Visit to Los Angeles

The Commission had no objection to your recommendation that the report be filed in the Public Document Room. (Secretary)

Items of Information

1. Meeting with Jersey Central Power and Light Company Representatives

2. Staff Paper re Extension of Allied Chemical Company Contract

Signing of USAEC-CNEN Memorandum of Understanding re Elk River Reactor in USAEC Chairman's office, Germantown, November 14, 1962. L to R around table: unidentified, Gaetano Lanzano, Achille Albonetti, Felice Ippolito, Seaborg, Commissioners Robert E. Wilson, John G. Palfrey, Leland J. Haworth, Roberto Cangiano, Myron B. Kratzer

Sunday. I told them I would be out there at that time. I also sent wires to Strong, Perlman, Wilkes, Lieutenant Governor Anderson, Regents Pauley, Carter, McLaughlin, Sullivan, Hearst, Roth, Hagar and Heller inviting them to attend.

I called Senator Jackson in Seattle to tell him of a call I had yesterday from Dean John D. Regester, University of Puget Sound, asking me to speak at a symposium there on Saturday evening, March 16th, and to receive an honorary degree at the Convocation on March 17, 1963. I also told him of my lunch on November 12th with President Charles Odegaard of the University of Washington and that he expressed a desire to get into a more basic biological project, such as the Hanford project. I

suggested to him the possibility of going to Hanford either on Friday, March 14th, or on Monday, March 18th. He thinks this is a good idea and would like to join me in such a visit. If his schedule will not permit him to make the trip he will let me know by the end of the week.

I called Wiesner about the participation of the President in the Fermi Award ceremony, and he suggested that I call O'Donnell. I also mentioned the matter of a short visit by the President with the "Fermi Group" who will be here for the ANS-AIF meeting. I told him that we have heard from John Toll of the Federation of American Scientists again. Jerry suggested we could do something for others who are in the same fix, such as, proposing a general review with the Justice Department. He suggested that I do some exploring on this and then together we could talk to Bundy.

Thursday, November 15, 1962 - Germantown - D.C.

The Commission finally unanimously agreed on the wording of the Report to the President on Civilian Nuclear power.

At 12:05 p.m. I presided over Commission Meeting 1891. The Commission approved the proposed contract with El Paso Natural Gas Company Mill at Tuba City, Arizona, and reaffirmed its approval of the contract with Homestake Sabin Partners. The Commission requested that in discussions with PCA it should be noted that it has not reached a decision regarding proceeding with the organic power and heat reactor project. The Commission also noted the desirability of discussing the matter with Chauncey Starr and the JCAE. The Commission noted the desirability of meeting with representatives of the following utilities: 1. Jersey Central Power and Light Company, 2. Los Angeles Department of Power and Light, 3. Consolidated Edison and 4. Nutmeg Electric Companies Atomic Project. Commissioner Ramey requested a report on additional measures the Commission may take to achieve a more positive approach to utilities and equipment manufacturers planning to construct large nuclear power reactors.

I had lunch in the cafeteria with Paul McDaniel, Spof English, Dan Miller, Al Crewe and Bill Harrell (University of Chicago).

At 2 p.m. I left Germantown for the D.C. office.

At 3 p.m. the Commission was briefed by Charles M. Herzfeld of DOD on the vulnerability of nuclear weapons.

At 5 p.m. the Commissioners met with Ros Gilpatric and his aides to discuss the possible need to revise restricted data procedures. Like Alexis Johnson, Gilpatric seems to feel that we probably shouldn't try to change the law because Congress might make the procedures even more restrictive.

Ken O'Donnell called to say that the President would receive the "Fermi Group" on the 27th or 28th. I asked if the President would be willing to participate in the Fermi Award ceremony on December 3rd, by giving the Award, and Ken said that the President would do this. He mentioned the trip which the President is planning to take to Los Alamos. he said the President is planning to visit Los Alamos, the two plants at Albuquerque and (off the record) see the ROVER project on December 7th and 8th. They will visit SAC just prior to this. He said they would like to have me make the trip with them. I told him I will go and will call Wiesner about arranging the details.

Friday, November 16, 1962 - D.C.

I called Dave Bell about the Civilian Nuclear Power Report. I said Haworth told me of his conversation with him (Bell) last night. Bell said he plans to check this out with the President today, if possible. If the President agrees, Bell will draft a release which they will clear with us. Bell suggested a cover letter to the President (which will need to be revised from the one sent last September 11th) and should probably be used as a fronts piece since it will be published. We might put in a caveat saying we haven't considered other types of power. I said there is no objection to this. I told Bell that this has been a composite job of Herculean proportions and I think Lee Haworth has done a very good job. Bell agreed with me.

At 10:15 a.m. I presided over Information Meeting 214 (notes attached). In Executive Session the Commission discussed the request of the Federation of American Scientists (letter from Toll) that Oppenheimer be reinstated for a government advisory role.

At 11:45 a.m. I met with Ambassador W. Walton Butterworth (newly assigned to Canada). This was primarily a social call and he again expressed great satisfaction for my response to his request for a good liaison man to EURATOM, which John Erlewine fulfilled admirably. We discussed the Ritzmann situation. He said he hoped we would continue to be in touch with each other in his new post, and I assured him that there would be many opportunities for this.

Commissioners Palfrey, Wilson and I, Ernie Tremmel, Bob Hollingsworth and Howard Brown had lunch at the Statler Hotel with the Committee on Atomic Energy of the U.S. Chamber of Commerce. Dessen (Chairman), Roger Coe, Dick Doan, Robert Lusk, Parsegian, A. V. Peterson, Norman Spector, Robert Loftness, Lederman, Vetter and many others attended. We discussed areas of relationships with industry, such as uranium stretchout, toll enrichment, patents, relations with NASA, private ownership, etc.

At 3 p.m. I met with William Graves (National Geographic Society) who wanted to discuss Washington as a center of science learning in connection with an article he is writing.

The Commissioners met and approved six more ports for the NS Savannah to visit, including the possibility of both Long Beach and Los Angeles, despite ACRS reservations regarding the latter.

Saturday, November 17, 1962 - Washington - San Francisco

Pete, Lynne, Dave, Steve and I attended the opening ceremonies for Dulles International Airport which began at 11 a.m. Both President Kennedy and General Eisenhower spoke.

I worked on AEC papers at home.

At 6:30 p.m. I left for San Francisco on TWA flight no. 63. I was met by Ward Blackman, Radiation Laboratory driver, and arrived at 9 p.m. I spent the night at the Durant Hotel.

This is Eric's birthday. He will have his party tomorrow since he attended a friend's birthday party today.

Sunday, November 18, 1962 - San Francisco

I had breakfast with Clark and Kay Kerr at their home in El Cerrito. I talked with

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November 16, 1962

INFORMATION MEETING 214

10:15 a.m., Friday, November 16, 1962 - Chairman's Office, D. C.

1. Release of Civilian Nuclear Power Report.

2. Fermi Award Ceremony, December 3, 1962.

The Chairman noted that the Award will be made at the White House and requested arrangements for a reception and luncheon to follow. (Secy)

3. President's Visit with the Fermi Team.

The Chairman said the President would meet with the Fermi team on November 27 or November 28.

4. General Manager's Report on the NS SAVANNAH.

Mr. Hollingsworth reported briefly on the stuck valve in the secondary steam system and the Commissioners requested additional information at the meeting this afternoon.

5. ACRS November 14 Letter Report on the City of Los Angeles Department of Water and Power BWR Proposal.

Noted.

6. Proposed Letter to Mr. Etherington, Allis Chalmers.

The Commissioners agreed the letter should not be sent. (GM)

7. Letter Report to Joint Committee re Byrd Reactor Contract.

Mr. Hollingsworth reported the proposed letter will be available for review today.

8. November 8 Letter from Congressman Holifield Requesting Information on the Test Series.

The Chairman noted receipt of the letter and requested preparation of an appropriate reply. (Betts)

9. Secretary's November 9 Memorandum to the Commissioners re November Meeting of the Labor Management Advisory Committee.

Referring to Commissioner Ramey's suggestion regarding the review of the Committee's Charter, the Commissioners agreed it would be preferable to consider this matter subsequent to the forthcoming meeting of the Committee.

10. November 7 Letter from Mr. McDermott, OEP, re Plans for Essential Emergency Functions.

Mr. Hollingsworth reported the matter in in review for early action. (Derry)

11. Chairman's November 14 Memorandum re Consideration of NTS Community.

The Commissioners requested review of the Chairman's suggestions and Dr. Wilson requested that, additionally, information on construction time for a railroad be included. (Bloch)

12. Commission Review of Hearing Examiner's Initial Decision on the Elk River Matter (Docket No. 115-1).

The Commissioners requested consideration on Wednesday, November 21. (GC-Secy)

13. Procedures on Publication of Books by Laboratory or Commission Employees.

The Chairman discussed briefly the need for revised procedures and Mr. Hollingsworth reported recommendations are in process. (Brunenkant)

14. AEC-NASA-DOD Agreement re Management of SNAP-50 Program.

Mr. Hollingsworth reported that the Department of Defense had requested that the language of the agreement be revised to provide that it is an AEC-NASA-DOD agreement, and the Commissioners had no objection to this proposed change. (GM)

15. AEC Staff Meetings with Joint Committee Staff.

Mr. Hollingsworth reported that the first meeting will be held on Monday, November 19 and said among the matters to be discussed will be the NTS community. He solicited the Commissioners' suggestions on additional items for discussion and the Commissioners requested that for forthcoming meetings a suggested list of discussion topics be circulated to the Commissioners. (GM)

16. Reduction in Labor Force at the Portsmouth Plant.

Mr. Hollingsworth reported that Goodyear would today reduce the maintenance labor force at Portsmouth by 96 people. The Commissioners commented on the problem of lack of prior notice on the reduction and Mr. Hollingsworth said he had discussed this matter with Mr. Sapirie and will issue a directive to all Operations Offices which will provide for ample advance notice to Headquarters on such reductions. He noted that this is an additional increment of labor force reduction due to increasing plant efficiency as illustrated by the following:

	December 18, 1960	September 30, 1962
a) Portsmouth Plant	2119	1535 (Now reduced by the above reported 96)
b) Paducah Plant	1672	1295
c) K-25 Plant	4025	2745

17. Proposed Fiscal Year 1964 Authorization Bill.

Mr. Hollingsworth said he had transmitted copies of the proposed bill to the Commissioners today and the Commissioners suggested scheduling it for consideration next Wednesday. (Secy)

18. Report on KIWI B-4-A Tests.

Mr. Hollingsworth said he hoped to have a date report shortly.

19. Next Scheduled Information Meeting.

The Commissioners noted that the next Information Meeting will be held Tuesday, November 20 at 9:30 a.m., and that there will be no Information Meeting on Monday, November 19 and Wednesday, November 21. (Secy)

20. Agenda for the Week of November 19, 1962.

Approved as revised. (Secy)

PRESENT

Dr. Seaborg
Dr. Wilson
Mr. Palfrey
Mr. Hollingsworth
Mr. Ferguson
Mr. Ink
Mr. Brown
Mr. McCool

DISTRIBUTION

Commissioners
General Manager
General Counsel
Secretary

W. B. McCool
Secretary

Clark about affairs at the University of California, especially Berkeley. We also discussed the possible plan that I might return to Berkeley on July 1st of next year. He suggested that I consider some administrative capacity such as chancellor at the San Diego campus.

About 1 p.m. I rode from the marina area on the "Adventuress" with its owner, Dan London, Governor Brown, Mayor George Christopher, Ed Strong, Regents William Roth and Donald McLaughlin, Ed McMillan, Iz Perlman, Dan Wilkes, Cecil King, Alex Grendon, Lloyd Fleming (Pacific Coast Director, Maritime Administration), Ellison Shute, Charles Schank, Jack McBurney (the Governor's press secretary) out to the NS Savannah to meet and board her, which we did soon after she passed under the Golden Gate Bridge. The Savannah proceeded to Pier 50 (Mission Rock Pier) just south of the Bay Bridge. Many press people (TV, radio, newspaper) were aboard with us.

After lunch I hosted the welcoming ceremony on board the Savannah. I made some remarks following the program which consisted of Mayor Christopher proclaiming NS Savannah Week, Cyril Magnin (President of Board, San Francisco Port Authority) presenting a plaque, and others presenting a scroll and ship's bell to Commodore DeGroote, the Captain of the Savannah. The program was presided over by Rae Watts (Director of the San Francisco Port Authority).

I held an informal press conference on board the Savannah, answering questions about the ship. The entire affair was very successful.

I drove to Lafayette with Iz Perlman, where I visited the Perlmans and the McPeaks (in our home). I had dinner with the Perlmans and Dan Wilkes at the Hickory Pit in Walnut Creek.

I spent the night at the Durant Hotel.

Monday, November 19, 1962 - San Francisco - Washington

I flew to Baltimore, with Cecil King, on United Flight 808, leaving at 8:30 a.m. and arriving at 4:15 p.m. We were met at the airport by Howard Brown and Jim Haddow.

I spent the evening working on AEC papers.

Tuesday, November 20, 1962 - D.C.

At 11 a.m. I presided over Information Meeting 215 (notes attached).

We sent the final report (copy of transmittal attached) on Civilian Nuclear Power to President Kennedy. We also sent copies to the Department of the Interior, the Federal Power Commission and the Bureau of the Budget. The report will be released to the press as of 6:30 p.m. on Thursday, November 22nd. A briefing session will be held for the press at 2 p.m. tomorrow.

At 12:30 p.m. I received a phone call from Howard Simons of the Washington Post. He said he had learned in the presence of two of his editors that a young chemist from Los Alamos named Hammond has come up with the idea that, if a nuclear power plant is large enough and is hooked to a desalinization process, power can be produced that is competitive with cost fuel, and it can also turn out water that would cost approximately 9¢ per thousand gallons. Howard said he understood this was getting serious consideration by the Commission. I told him no money was in the budget for this project. He said he had heard the figure of over one billion dollars. I said this number is arbitrary, but it would have to be large for such a plant.

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

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COPY NO. 35

November 20, 1962

INFORMATION MEETING 215

11:00 a.m., Tuesday, November 20, 1962 - Chairman's Office, D. C.

1. Background Press Conference on Civilian Power Report, 2:30 p.m., Wednesday, November 21, Room 1113-B, D. C. Office.

The Commissioners requested arrangements be made for the background conference in preparation for public release of the Report on Friday, November 23. (Ink-Secy)

2. Commissioners' Luncheon with Mr. Eklund, Wednesday, November 21.

The Commissioners noted that tomorrow's activities will be scheduled in the D.C. office.

3. McMurdo Reactor Operation.

Mr. Hollingsworth reported briefly on the operation of the reactor and said that for a period of several weeks periodic shutdowns will probably be necessary.

4. Fermi Award Ceremony Preparations.

The White House ceremony is scheduled for 12:00 noon, December 3 and the reception and luncheon at 12:30 p.m., in the Federal Room, Statler-Hilton.

5. Draft Letter to Senator Jackson and Congressman Holifield re Byrd Reactor Cancellation.

Mr. Hollingsworth said he is reviewing the letter and will have it before the Commissioners soon.

6. Proposed Revisions in the Antarctic Reactor Program.

Mr. Hollingsworth discussed briefly the alternative possibility of initiating a design effort for an all-purpose reactor for broad scale use at McMurdo and other locations. He said the memorandum discussing this matter will be circulated shortly and the Commissioners requested a discussion of the proposal. (Pittman-Secy)

7. November 16 Memorandum from Mr. Bundy re Installation of Permissive Links.

8. Commissioners' Meeting with Utility Representatives.

The Commissioners discussed briefly the proposed schedule of meetings and some suggested changes. (Secy)

9. Commissioner Ramey's Visit to Yankee Atomic Electric Company Plant, Rowe, Massachusetts, Friday, November 16.

Mr. Ramey discussed briefly some of the unanticipated problems Yankee had found in fuel element changeover, radiation effects on control rods, etc., but noted the plant is in operation at 165 megawatts.

10. Commissioner Ramey's Discussion with Mr. Knapp of Nutmeg Electric Companies Atomic Project.

Mr. Ramey reported that Mr. Knapp commented the company would probably require additional time for submission of its proposal and had noted the desirability of additional flexibility in proposal requirements. The Commissioners discussed briefly the advantages of the development of a program with more flexibility, additional incentives to construct, etc., and agreed that something more needs to be done to generate additional unsolicited proposals. (GM - Pittman)

11. Commissioner Ramey's Discussion with Mr. Webster of Yankee Atomic Electric Company re Reprocessing.

12. Plant Appropriations Overruns.

Mr. Hollingsworth discussed briefly the revised estimates of overrun on the NPR and other projects. He noted that Mr. Conway, Joint Committee staff, has requested for Senator Pastore information as to the requirement for additional appropriations for the NPR. The Commissioners agreed to meet with staff on Friday, November 23 to discuss projected overruns. (Abbadessa-Secy)

(Dr. Wilson left the meeting at this point.)

13. Cost Estimates on Construction Projects.

Mr. Ramey requested a briefing or report. (Abbadessa)

14. GAC Comments on Sherwood Program.

Mr. Hollingsworth noted circulation to the Commissioners of staff review of the GAC comments and requested an opportunity to review the matter with the Commission. (GM-Secy)

15. Proposed Authorization for Conflict of Interest Exemption.

Mr. Hollingsworth discussed briefly his proposal to authorize an exemption under Section 0313 of Chapter 4124 of the Manual. The Commissioners requested review of the matter with Commissioners Palfrey and Ramey and possible further discussion with the Commission. (GM)

16. BoB Apportionment of Fiscal 1963 Funds.

Mr. Hollingsworth discussed briefly his November 19 memorandum pointing out the problems with respect to the funds for food irradiation and the marine products irradiation facility. He suggested early discussion by the Commissioners in preparation for staff discussion with the Bureau as the proposed actions affect the Fiscal 1964 budget requests. (GM)

17. General Manager's November 16 Memorandum re Private Ownership and AEC Sale of Special Nuclear Material in the United States (AEC 1120/1).

Mr. Hollingsworth noted circulation to the Commissioners and said staff would review the analysis with the Commissioners. (Ink)

18. Commissioners' Meeting with Atomic Safety and Licensing Board Panel.

Mr. Ferguson discussed briefly the arrangements for the meeting now scheduled for 9:30 a.m., Monday, November 26, Room 1113-B, D. C. Office. The Commissioners agreed that:

a) The meeting should be with all available members of the panel;

b) The discussion should be confined to hearing procedures;

c) A complete record of the meeting should be made; and

d) Members of the Regulatory staff may be present. (GC-Secy)

19. Changes in Commission's Rules of Practice.

The Commissioners requested early preparation of appropriate rule changes to avoid the problems presented by the procedures in the Elk River Power Demonstration Reactor Project (Docket No. 115-1). (GC)

20. Proposed Answers for Use by the President at His Press Conference Today.

Noted.

21. Support Contractor for Rover Program at NRDS.

Mr. Hollingsworth noted issuance of the invitation for bids.

22. Trial Run of the USS THOMAS JEFFERSON.

Mr. McCool reported briefly on Admiral Rickover's telephonic report to him of the successful trial run of the THOMAS JEFFERSON.

PRESENT		DISTRIBUTION
Dr. Seaborg	Mr. Hollingsworth	Commissioners
Dr. Wilson*	Mr. Iuk	General Manager
Dr. Haworth	Mr. Ferguson	General Counsel
Mr. Ramey	Mr. Henderson	Secretary
Mr. Palfrey	Mr. McCool	

W. B. McCool
Secretary

* Partial attendance.

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

UNCL. BY DOE
NOV 86

OFFICE OF THE CHAIRMAN

November 20, 1962

Dear Mr. President:

I am pleased to submit herewith the report resulting from our "new and hard look at the role of nuclear power in our economy," as requested by you on March 17, 1962. In preparing this report, we have had the benefit of comments, and advice from interested offices and individuals within and without the Government. However, the Commission takes full responsibility for the conclusions and recommendations of the report.

The Commission, of course, has concentrated on issues related to the development and use of nuclear power; it has not attempted to appraise the possible effect of major research efforts on the economics of non-nuclear energy sources or on improved transmission methods for either source of energy. However, the study has been greatly aided by the information furnished by the Department of Interior, the Federal Power Commission, and the National Academy of Sciences' Committee on Natural Resources.

Those who have participated in the study you requested are agreed that it has proved to be very timely. While the Commission has been proceeding on a considered course in general accord with its 10-year civilian power program adopted in 1958, that program is now on the threshold of attaining its primary objective of competitive nuclear power in high-fuel-cost areas by 1968. However, it became evident with the passage of time that our attention had probably for too long remained focused narrowly on short-term objectives. This restudy made it apparent that, for the long-term benefit of the country, and indeed of the whole world, it was time we placed relatively more emphasis on the longer-range and more difficult problem of breeder reactors, which can make use of nearly all of our uranium and thorium reserves, instead of the less than one per cent of the uranium and very little of the thorium utilized in the present type of reactors. Only

by the use of breeders would we really solve the problem of adequate energy supplies for future generations.

We believe that it still is necessary for the Government as an interim measure to maintain a substantial program of research and development on advanced types of reactors other than breeder reactors, which are some years away. It appears from the projections made that efficient converter reactors will be required in conjunction with breeder reactors to meet the rapidly growing national demands for electrical power. This Government program over the next several years is also important since it provides the national means for "bridging the gap" between the infancy and maturity of nuclear power. This interim aid will allow the consolidation of the gains made to date and will permit the national nuclear program to proceed in an efficient and sensible manner toward the development of more efficient and economical converter reactors and eventually breeder reactors.

Furthermore, a vigorous national nuclear power program can be pursued without interfering with a growing coal industry; in fact, all our projections indicate that, even assuming an optimistic forecast of nuclear power development, the use of coal by the rapidly expanding electric generating industry will increase severalfold over the next 40 years.

It should be recognized that, largely as a result of early optimism, we have, in a short space of time, developed a competitive nuclear equipment industry which is overcapitalized and under-used at the present time. This optimism has had some good results in terms of bringing many able technical men, manufacturers, and utility executives into the field, and assuring Congressional and industrial support during the development years.

The optimism has also brought about some difficulties in that unless there are new starts on atomic power plants, the atomic equipment industry will probably dwindle down to fewer manufacturers than would be desirable for a healthy and competitive nuclear industry. Fortunately, it now

appears that only relatively moderate additional governmental help will be necessary to insure the building of a substantial number of large, water-type power reactors that will be economically competitive in the high-fuel-cost areas of this country and the world. This would increase public acceptance, keep the nuclear industry healthy, and help to furnish the plutonium necessary for a breeder reactor economy as soon as it can be adequately developed.

In summary, nuclear power promises to supply the vast amounts of energy that this Nation will require for many generations to come, and it probably will provide a significant reduction in the national costs for electrical power.

The Commission unanimously concurs in this report.

Respectfully yours,

(Signed) Glenn T. Seaborg

Glenn T. Seaborg
Chairman

The President
The White House

Enclosure

Howard asked if there were a direct ratio in that the larger the plant the more the cost is reduced. I told him that the fuel is relatively cheap compared with the capital needed for construction costs. However, capital construction costs don't double when a project is doubled. He then asked if California is being considered as a site. I told him I didn't know whether it would be in California or not and that Mexico had been mentioned also. It has to be a place that needs water and has power. He said he understood the core would be about the size of my office and I said I supposed it would be for something this large.

I told Howard, if I were writing a story like this, I would temper it somewhat since there are a lot of problems to be solved and not everyone agrees. On the other hand, it is being studied. He asked if the White House is involved and I said only to the point that they are advised of everything.

At 2:30 p.m. I met with Admiral Lloyd M. Mustin (Commander, JTF-8) to discuss the future of JTF-8 and the need for a decision on the date of the next atmospheric test series.

At 3:15 p.m. I met with Bob Hudson of NETRC, Al Crewe (Director, ANL) and Duncan Clark to discuss Argonne's doing a second series of 13 TV shows (Challenge Series) to follow the series of 13 that they have just completed. We decided they could go ahead provided some of them involve other AEC laboratories where they have expertise in the subjects.

I called Bell in connection with the letter of transmittal of the power report (attached with related correspondence). I mentioned the difference of opinion between AEC and Fred Schuldt about mentioning that an initial report was prepared some weeks ago. I said one of the reasons for mentioning it is that the report was due September 1st--almost three months ago. Bell said that, if the problem is one of dates, not to worry about it. If questioned, he said we can state that the report was in draft for some time, but that it needed concurrences throughout government. He feels that referring to the preliminary report would have the effect of requests for it by the JCAE members, and others, and then questions as to why changes had been made. All in all, Bell said he would be inclined to leave it out. I told Bell that we are planning a background briefing session for the press tomorrow afternoon. I mentioned sending a copy of the report to the President. He said it is important enough to get it to him. He said that some days ago the President asked to see the report and was furnished the earlier version.

Wednesday, November 21, 1962 - D.C.

At 10:30 a.m. I presided over Commission Meeting 1892 (action summary attached). The Commission approved transmission of the FY 1964 authorization bill (which includes $55 million for a reactor prototype) to the Bureau of the Budget for approval prior to transmission to Congress. We also approved the transfer of Georgia Nuclear Laboratory from the Air Force to the AEC and Aetram-Blume-Atkinson as the subcontractor for architect-engineer-construction management ($42 million) for the Stanford Linear Accelerator.

At 12 noon I met with Dr. Sigvard Eklund, who asked me whether we want to have an American replace John Hall in his present position at the IAEA after he returns to the States or if we would just as soon have an American fill the position of Technical Deputy Director. He suggested that the Puerto Rican Nuclear Center might in some way be connected with the IAEA and thus serve as the IAEA Nuclear Center for the Western Hemisphere. I told him we would consider these points and let him know.

I hosted a lunch at the H Street office for Eklund which was attended by Haworth,

DG FILE

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COPY

November 22, 1962

MEMORANDUM FOR: The Director, Bureau of the Budget

SUBJECT: Civilian Nuclear Power -- AEC November 20, 1962 Report

The President has received and noted the report of the AEC transmitted by letter from Chairman Seaborg, dated November 20, 1962, and has requested that you initiate the next steps. The White House press release of November 20 reporting the receipt of the AEC report stated that the President will take the report under consideration in connection with the 1964 budget, and in preparing other recommendations to be made to the Congress from time to time regarding the future of the nation's atomic energy program.

The Chairman's transmittal letter stated that the Commission in developing its report did not attempt to appraise the possible effect of major research efforts on the economics of non-nuclear energy sources or on improved transmission methods for either source of energy.

The President would like to receive your recommendations as to the most effective way to deal with this problem that was identified but not studied by the Commission, and also the broader economic questions which are implicit in the Commission's report, such as the size and characteristics of future demands for energy, possible price trends for fuels, and available alternative approaches to the problem of supplying the long-term energy requirements of the nation. It is understood that you have already initiated informal consultations within the Executive Branch on the best approach to this matter. An early decision and assignment of responsibility for the project would be helpful in connection with the development of the 1963-64 legislative program and in our relationships with the Joint Committee.

/s/ McGeorge Bundy

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THE SECRETARY OF THE INTERIOR

WASHINGTON

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NOV 86

November 20, 1962

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Dear Dr. Seaborg:

We have received two copies of the October 25 draft of the report to the President by the Atomic Energy Commission on civilian nuclear power, and I am glad to take this opportunity to present comments and questions that have been raised within the Department of the Interior. As you know, we furnished some of the information on existing and potential reserves of fossil fuels, data on present fuel costs and uses in different regions of the country, and some estimates of future consumption.

We concur with the statement on page 1 of the Report that, "The long-term availability of abundant and economic sources of energy and the development of new techniques and technologies of general applicability are matters of concern to all the people and therefore to the Government." A fundamental objective of our National energy policy should be to attain abundant power for all consumers at continually lower costs. We believe that, so far as can be foreseen at present, energy from atomic fission, and hopefully from fusion, will eventually be required to supplement, and perhaps ultimately to supplant, energy from the combustion of fossil fuels.

On the other hand, our fossil fuel reserves are ample to provide relatively low-cost energy in nearly all forms during the next thirty to forty years. Whether low-cost supplies of fossil fuels will continue to be adequate to meet our increasing energy needs for a much longer period depends chiefly upon the rate at which advancing technology can make presently-known marginal supplies of coal and shale oil economically recoverable, and the rate at which additional resources of oil, natural gas, and coal can be discovered. Similarly, the reserves of fissionable and fertile materials will become significant supplements to fossil fuel reserves only if advances in technology can be made leading to the development of economical breeder reactors.

It seems to us that three basic questions need to be answered in considering the rate and character of the development of nuclear electric power:

1. What present rate of effort, and expenditure of Federal funds, is necessary to ensure that inexpensive electric power from atomic fission will be available when it is needed to supplement, and eventually to substitute for, inexpensive power from fossil fuel combustion?

2. What is the most profitable way to allocate Federal funds within the required level of expenditures? What proportion of expenditures should be for the construction and operation of full scale power plants and prototype reactors, and what should be devoted to an attack on high cost items, for example core preparation, fuel processing, reactor safeguards, waste disposal, and compatible components such as pumps and heat exchange systems?

3. How does Federal Government assistance in the construction and operation of nuclear power plants compare in effectiveness, as a means of ensuring constructive competition in the power industry, with encouragement of research and development leading to lower costs of transportation of coal or electric power, lower costs of production of fossil fuels, and increasing efficiency of use?

With regard to the first question, it is evident that if nuclear energy will not be needed to supplement fossil fuel reserves until sometime after the beginning of the 21st century, only those efforts to develop it for this purpose should be made now which would have to be made at a much higher cost in twenty or thirty years. Such efforts are an investment to gain future benefits. The present worth of this investment depends on the assumed interest rate and the time at which the benefits will be realized.

The AEC Report states that, at the contemplated rate of effort, breeder reactors can probably be made economically competitive within the next ten to twenty years. From the standpoint of fossil fuel conservation, there will be no pressing need for such reactors for a considerably longer period. Hence it would appear that present research and development of breeder reactors might well be conducted on a reduced scale. However, if the development of breeder reactors can be made to result in a marked decrease in fuel cycle costs for nuclear power generation, then this development should be vigorously prosecuted, because it may give nuclear power plants a significant cost advantage over conventional power plants within a fairly short time (see below).

By itself, full scale development of nuclear electric power will have a relatively short time effect in stretching out our fossil fuel reserves. On the basis of the growth in energy consumption assumed in the Report, 30 Q of fossil fuels (corresponding to our minimum estimate of the quantity that will eventually be recoverable at approximately present costs) would last until about 2115 if all electric power after 2000 A.D. were generated from nuclear fuels. The same quantity of fossil fuels would last until 2080 if nuclear electric power were not used at all. Thus a long range research and development program, looking toward the conservation of fossil fuels, must be broadly aimed at transforming all energy uses, rather than concentrating on nuclear electric power generation. Moreover, developments in fossil fuel technology may be as important as nuclear development in lengthening the life of our fossil fuel reserves and lowering the cost of power. To make available the 130 or more Q of fossil fuels which we believe will eventually be used, we must acquire the geologic knowledge and methods necessary to discover concealed deposits of oil and gas, improve mining and beneficiation methods to yield greater recovery of coal and oil from the ground, and develop processes that will permit the use of marginal and sub-marginal resources.

In attempting to make nuclear power generation competitive with conventional power from fossil fuels, the Government is faced with a receding target. In terms of constant dollars, fossil fuel prices in the so-called high cost areas of the United States came down by 6¢ per million btu from 1956 to 1960, or about 17%, after rising slightly from 1952 to 1956. Developments now in sight could bring the cost of transportation of coal down by 50% or more in the next twenty years. This would reduce the cost of coal in the high cost areas by 20 to 25%. Some of the areas of high fossil fuel costs have large existing and potential hydropower sources. Power from fossil fuels makes up a small percentage of their total consumption. Moreover, developments such as high voltage direct current transmission are bringing down the costs of transportation of electric energy, and are thus making possible inexpensive "mine-mouth" generation of power for use at considerable distances. These developments are tending to equalize electric power costs in different sections of the country.

During the last decade, there has been an increase of 21% in the efficiency of electric energy production from a given amount of fuel. At present, about 9/10 of a pound of coal is required to produce

1 kilowatt-hour of electricity. By 1980, it is expected that about 7/10 of a pound of coal or coal equivalent will be required per kilowatt-hour. According to the Report of the National Fuels and Energy Study Group to the Senate Committee on Interior and Insular Affairs, the most efficient plants at that time may have a heat rate of less than .65 pounds per kilowatt-hour (p. 197).

Over the past ten years, the average price of fossil fuels used for electric power generation has been lowered about 10% in terms of constant dollars. The average output per man day in coal mining has increased from six to thirteen tons since 1949. It may go up to twenty-five or thirty tons by 1980.

The Report implies (p. 45) that by the end of this century the cost of nuclear electric power will be about 1 mill per kilowatt-hour lower than the cost of power generated from fossil fuels in areas producing half the electric power in the country. It is assumed that "plant-side costs of fossil fuel remain unchanged, i.e., that on the average, changes in recovery costs and transportation costs cancel each other." This would mean that fossil fuels would go down in price in present high cost areas, and rise in price in present low cost areas, but that the average price of fossil fuel would remain about 25¢ per million B.T.U. With this fuel cost, and with presently-known technology, large conventional power plants (approximately 1,000 megawatt capacity) can probably be built to generate electricity at about 4.3 mills per kilowatt-hour. Projected future increases in efficiency of fuel utilization would reduce this cost to less than 4 mills. Even if future nuclear power plants could be constructed for the same cost per hour as future conventional power plants (say $100 per kilowatt), fuel cycle and operation and maintenance costs would need to be less than .9 mills per kilowatt-hour to effect the savings estimated in the Report.

This brief calculation illustrates to our minds the emphasis that should be placed on fuel element development and upon fuel fabrication and reprocessing, or, alternatively, longer fuel life.

In more general terms, it is not evident to us that a program of Federal assistance in the construction of full scale power plants using saturated steam reactors will serve a very useful purpose.

Such a present subsidy to the nuclear equipment industry can be justified only if it will yield future benefits in lower cost power which have a greater present worth than the cost of the subsidy. In view of the continually decreasing costs of conventional power generation, it will be difficult to "convince utilities of the future economic benefits that they can gain from increasing use of nuclear power" from the present generation of reactors. Perhaps a healthy growth of the nuclear equipment industry can be sufficiently assisted by the Government through the purchase of reactors for Naval ships and other special purposes, and by supporting industry research and development.

In addition to the stated subsidies in the form of support of research and development, temporary waiver of fuel charges, and reimbursement of design costs, it appears to us that the price allowance for plutonium may represent a hidden subsidy. If the plutonium is stockpiled for several decades, the initial allowance of $9.50 per gram, plus interest charges, will mean that the actual cost of this fuel to the taxpayers is higher in terms of B.T.U. than the cost of fossil fuels.

In the all-important matter of safety, we agree that, in addition to improved containment systems and other technical developments, convincing demonstrations are essential, and that these will require full scale long term power reactor operation. We understand that, according to present AEC regulations, the large reactors that appear to be most economical must be located at a considerable distance from population centers. A subsidy to pay for the extra cost of power transmission would appear to be justifiable to encourage the construction and operation of such large plants, in order to test and demonstrate safety.

We are much intrigued with the possibilities of using very large reactors for combined production of power and fresh water from ocean or brackish waters in quantities that would be a significant supplement to other water supplies. Such combined very large plants might well be economically located at a distance from existing population centers, and yet contribute fundamentally to regional development. By producing both water and electric power, better advantage could be taken of the relatively low-temperature heat produced by most present-day reactors. The very large size required to meet the needs for water could result in a marked lowering of fuel cycle and unit capital costs. The total expenditure, long time scale, and multi-purpose nature of the development would make it appropriate for the Government to take primary responsibility.

In summary, we concur in the desirability of continuing a program for development of nuclear power for the civilian economy, but believe that it should be in a manner consistent with the expectation of a reasonably abundant supply of fossil fuel energy for many years to come, with the recognition that costs of power from fossil fuels will become markedly lower in present high cost areas, and with the goal of lowest cost energy for all uses.

Our aim should be to assure ourselves and future generations an abundance of energy at the lowest possible cost. Competitive sources of energy are essential in achieving this goal. Among the most promising ways to ensure such competition are the development of the technology and multiple use of both coal and nuclear power, and efforts to improve the efficiency and reduce the costs of transmission of power and transportation of fuels. Work in these areas will strengthen our economy by broadening its base, and will better utilize and conserve our energy resources. We particularly urge that the Commission give consideration to the possibilities of very large multi-purpose installations for combined water and power development, and we stand ready to cooperate enthusiastically with you in exploring these possibilities.

Very truly yours,

Secretary of the Interior

Hon. Glenn T. Seaborg
Chairman
Atomic Energy Commission
Washington 25, D. C.

Powell 10

DC FILE

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NOV 86

THE WHITE HOUSE

WASHINGTON

November 22, 1962

Dear Glenn:

The President has asked me to express to you and your colleagues on the Commission his appreciation for the fine report on civilian nuclear power that you sent him in response to his request of last March.

The report will be immediately useful to the President in considering the national nuclear energy program as presented in the 1964 budget and, when put side by side with results of other studies now under way on the non-nuclear side of the national energy picture, will present a useful projection of our total future energy requirements and resources that will be invaluable in shaping policy in years to come.

Sincerely,

Mac

McGeorge Bundy

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

OPTIONAL FORM NO. 10
5010-104

D. C. R

UNITED STATES GOVERNMENT

Memorandum

UNCL. BY DOE
NOV 86

TO : Robert E. Hollingsworth
Acting General Manager

DATE: November 21, 1962

Approved _____
R. E. Hollingsworth

FROM : W. B. McCool, Secretary

Original signed
McCool

Date _____

SUBJECT: ACTION SUMMARY OF MEETING 1892, WEDNESDAY, NOVEMBER 21, 1962
10:30 A.M., ROOM 1113-B, D. C. OFFICE

SECY: JPG/PAL

Commission Business

1. Minutes of Meetings 1870, 1871, 1884 and 1885

Deferred.

2. AEC 25/229 - Safety Rules for Navy Weapons System

Approved. (Betts)

The Commission requested a follow-up letter be sent to the DOD re DOD procedures for personnel security investigation. (Waters/Betts)

3. AEC 25/230 - Proposed Navy Safety Rules

Approved. (Betts)

4. AEC 25/231 - Proposed Air Force Safety Rules

Approved. (Betts)

Commissioner Wilson requested a report on the fueling sequence. (Betts)

Commissioner Palfrey requested a report on Safety Rules Development. We have supplied copies of AEC 25/152 and AEC 907/18 to Commissioner Palfrey. (Secretary)

5. AEC 1095/19 - Federal Agency Survey of Research and Development Levels Projected to 1970; and AEC 1095/20 - (Supplement to AEC 1095/19)

Approved, as revised for transmittal to the Federal Council for Science and Technology. (Slaton)

The Commission requested the draft letter to the Federal Council for Science and Technology be revised to reflect that the projections represent the Commission's best judgment at this time and are not to be considered approved programs. (Slaton)

6. AEC 1123 - Community Plan for the Nevada Test Site; and AEC 1123/1 - Community Plan for the Nevada Test Site (See also November 20, 1962, Memorandum for the Commissioners by C. C. Ohlke, Special Assistant to the Assistant General Manager for Operations)

Deferred.

To be rescheduled the week of November 26. (Secretary)

7. AEC 844/14 - Transfer of Georgia Nuclear Laboratory

Approved. (Pittman)

8. AEC 1036/39 - Subcontract for Architect-Engineer-Management Services for Stanford Linear Accelerator

Deferred.

The Commission requested:

a. An attempt be made to negotiate the contract completion date out of the contract without renegotiating the fee; if this cannot be done, the matter will be brought back to the Commission;

b. A significant breakdown of the fee; and

c. A summary of the means for assuring adequate Government control of the contract.

9. FY 1964 Authorization Bill (Acting General Manager's Nov. 16, 1962, Memorandum to the Commissioners re Transmittal to the Bureau of the Budget)

The Commission approved, as revised, the draft letter to the BOB. (Abbadessa)

The Commission requested the letter to the BOB be revised to include a caveat noting that the authorization for $1.3 million under Section 104 for the Fermi Reactor project is under review. (Abbadessa)

The Commission requested that they be provided a report on the utilization and cumulative totals of funds authorized and appropriated for waiver of use charges. (Abbadessa)

Commissioner Ramey requested the back up for the project 64-e-13 - Prototype Power Reactor include a statement that the Commission will retain direction of the project and ownership of the reactor. (Abbadessa)

Other Business

Isotope Production at Savannah River

The Chairman requested consideration. (Bloch/Quinn)

Item of Information

Letter to DOD Re NATO Data Processing

To be discussed Friday, November 23, 1962.

Palfrey, Ramey, Wilson, Smyth, Charles Thomas, Bob Hollingsworth, English, Wells, Gardner and Howard Brown.

From 2 p.m. to 3 p.m. we held a briefing session for the press on the Civilian Nuclear Power Report to be released tomorrow evening. It seemed to go well. I was interviewed by Frank Carey of AP on predictions for nuclear energy twenty years from now.

I called John Toll with regard to his November 13th letter and told him we have something underway for Oppenheimer that might materialize in six months and I hope the Federation of American Scientists will wait for this. He indicated his pleasure that we are working on this and said the Federation will wait.

Thursday, November 22, 1962 - Thanksgiving Day

I worked on AEC papers and the 1962 Annual Report on Basic Research at home.

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

Leland Haworth and his daughter, Jane Paglia, had dinner with our family.

Harry and Mary (Dakin) Goldman dropped in for a visit during the evening. Mary is a sister of Eleanor Finley and Virginia Grahame. (Virginia is the widow of David Grahame, my research partner in graduate school in Berkeley.) The Goldmans live in Cleveland.

Friday, November 23, 1962 - D.C. - Houston

At 10 a.m. I presided over Information Meeting 216 (notes attached). We discussed Udall's letter (copy attached) commenting on the Civilian Nuclear Power Report.

I sent a letter (copy attached) to Budget Director Bell today transmitting a draft of our FY 1964 authorization bill for his approval.

I called Frank Gifford to tell him that we have authorized the additional ports for the visit of the NS Savannah and that the news release would be made today. I said that the Commission thought these ports should be considered on the basis of their individual merits. He said they had hoped to achieve a safety gain by handling this some other way, but they realize there are other considerations involved.

At 11:30 a.m. I met with Francis Perrin (High Commissioner, French Atomic Energy Commission) and Bertrand Goldschmidt (Director of Foreign Relations & Programs, French AEC). We discussed their request for plutonium for their Rhapsodie reactor, U-235, for their Pegasse reactor, etc., and the difficulties that have arisen with respect to U.S. safeguards inspection of French use of U-235 (from the U.S.) for their land-based submarine prototype.

I attended a luncheon for Perrin and Goldschmidt at the Carlton Hotel given by Jose de Cubas (Executive Vice President, Westinghouse).

At 6:15 p.m. I left for Houston on Delta flight 7923, arriving there at 10 p.m. I was met at the airport by W. O. Milligan.

I spent the night at the Rice Hotel.

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

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NOV 86

COPY NO. 15

November 23, 1962

INFORMATION MEETING 216

10:00 a.m., Friday, November 23, 1962 - Chairman's Office, D. C.

1. Exchange of Information with French re Underground Test Detection.

The Commissioners discussed briefly General Betts' memorandum of November 16 on this subject and requested Mr. Hollingsworth to discuss the matter further with ARPA representatives to determine possible means of an extension of the program. (Betts)

2. Proposed Response to Secretary McNamara's November 9 Letter re Reproduction Slippages.

The Commissioners discussed briefly the importance of indicating to Secretary McNamara the recent improvement in product acceptance and the AEC's interest in further improvement. Dr. Haworth will discuss the matter further with General Betts.

3. White House Inquiry re Christmas Island.

The Chairman asked Mr. Henderson to call Mr. Johnson and discuss with him the Commission's position on this matter and to refer to the Commission's letter of October 24 to Secretary Rusk and provide Mr. Johnson a copy of the letter. (Henderson)

4. AEC-DOD Planning re 1963-1964 Test Program.

The Commissioners discussed the importance of joint consideration in December. (Betts)

5. Proposed Response to Secretary Gilpatric's September 28 Letter re May 1962 Planning Estimates.

The Chairman requested information on the development of the proposed reply. (GM)

6. Secretary Udall's November 20 Letter Providing Comments on the Commission's Civilian Nuclear Power Report.

✓ 7. Chairman's Letter to the President re AEC Contracts with Small Business.

The Chairman said he had signed the revised letter.

8. Proposed Letter to Congressman Holifield re Byrd Reactor Contract.

The Chairman noted circulation of the proposed letter and requested review by the Commissioners.

9. Agenda for the Week of November 26, 1962.

Approved as revised. (Secy)

The next Information Meeting will be scheduled for ~~Tuesday,~~ Weds. November 27, 2P, 9:15 a.m. (Secy)

10. Reduction in the Price of Heavy Water.

Dr. Wilson noted his previous request for recommendations on this matter and Mr. Hollingsworth reported that it will be before the Commission shortly. (Secy)

11. NASA Requirements for Plutonium 238.

Dr. Wilson noted NASA's November 2 Letter setting out the agency's requirements and Mr. Hollingsworth reported that a proposed reply is in staff. (Secy)

12. Secretary's November 19 Memorandum re Kennedy Library Papers.

Dr. Wilson commented that the bulk of his papers would probably be deposited with the Smithsonian Institution. The Secretary noted that the procedures for transfer of personal papers recognize the exercise of personal judgment in selection of the records for transfer. He added that the AEC Historian, Mr. Hewlett, will discuss this matter with the Commissioners' staffs. (Secy)

13. Use of Personal Cameras at Christmas Island.

Mr. Hollingsworth noted the JTF-8 request to lift the restriction on use of personal cameras effective December 1. The Commissioners had no objection and requested coordination with the White House. (Betts)

14. Research Conference on the Basic Mechanisms in the Radiation Chemistry of Aqueous Media, Gatlinburg, Tennessee, May 8-10, 1963.

The Commissioners had no objection to the proposed AEC support in the amount of $12,000.

15. Promotion of Assistant Director, Division of Peaceful Nuclear Explosives.

The Commissioners had no objection to the General Manager's recommendation.

16. AEC Support of Oceanographic Research Facility at Johns Hopkins University.

The Commissioners had no objection to the General Manager's recommendation for support in the amount of $200,000 for the construction of a new oceanographic center at Johns Hopkins University.

17. Pipe Fitters Strike at Hanford.

Mr. Hollingsworth reported the strike had ended and the men will be back at work on Monday.

18. AEC Shows for National Education Television Network.

The Chairman commented briefly on his discussion with Messrs. Crewe and Hudson re the Argonne production of a second series of TV shows and said that he had suggested the use of other laboratories where appropriate.

19. Announcement re NS SAVANNAH Port Schedule.

The Chairman said he would call Mr. Gifford.

20. Private Ownership Legislation (AEC 1120/1 - Private Ownership and AEC Sale of Special Nuclear Material in the United States).

Mr. Hollingsworth noted the proposed legislation has been discussed with the Commissioners, and the Commissioners requested transmittal to the Bureau of the Budget. (GM)

PRESENT		DISTRIBUTION
Dr. Seaborg	Mr. Hollingsworth	Commissioners
Dr. Wilson	Mr. Ferguson	General Manager
Dr. Haworth	Mr. Henderson	General Counsel
	Mr. McCool	Secretary

W. B. McCool
Secretary

DC FILE

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OFFICE DIARY
GLENN T. SEABORG
Chr USAEC, 1961-72
FOLDER-PAGE 23159

NOV 23 1962

Dear Mr. Bell:

The Commission's proposed legislation authorizing appropriations for the fiscal year 1964 construction program and for other purposes is forwarded herewith for Bureau of the Budget clearance.

Section 101 of the proposed legislation would provide authorization of appropriations amounting to $302,117,000 for new construction projects included in the budget estimates for fiscal year 1964 which have been submitted to the Bureau of the Budget. Section 102, as in prior years, establishes limitations relative to starting the projects included in Section 101.

BEST COPY AVAILABLE

In addition to authorizing appropriations for new construction projects, authorization is included for the Euratom program and the Cooperative Power Reactor Demonstration Program. In connection with the latter program the language of Section 104(a) 2 would provide for an exception to the provisions of Section 169 of the Atomic Energy Act of 1954, as amended, in connection with a research and development program involving the utilization of the Berlin Nuclear Atomic Power Plant. The details of the proposed program to be carried out will be reviewed shortly and the need for this exception will be dependent upon the program finally approved. Upon completion of our review we will inform you whether such an exception will be required.

We are also providing at this time an analysis of each project for which authorization is requested and of Sections 103, 104 and 105.

Your approval of this legislation would be appreciated.

Sincerely yours,

(Signed) Glenn T. Seaborg

Chairman

cc: Chairman (2)
GM
Secretariat (2)

CONFIRMED TO BE UNCLASSIFIED
BY AUTHORITY OF DOE/OC
H L Hoppe 6/4/82
REVIEWED BY H L Hoppe DATE
L. Sefowitz 6/12/86

Honorable David E. Bell
Director, Bureau of the Budget

typed H St/lj

Enclosures:
As stated

23159

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Saturday, November 24, 1962 - Houston, Texas

I attended an all day meeting of the Scientific Advisory Board of the Welch Foundation, as well as a dinner and a meeting with the Board of Trustees of the Welch Foundation.

Sunday, November 25, 1962 - Houston

I spent the day at the Rice Hotel, where I talked to many inorganic chemists who were arriving for the Welch Foundation Conference on Modern Inorganic Chemistry.

I had dinner at Kelleys with Leon O. Morgan, Jim McCullough (UCLA) and Burris B. Cunningham.

Monday, November 26, 1962 - Houston - Washington

I gave the introductory remarks at the Conference on "Topics in Modern Inorganic Chemistry" sponsored by the Welch Foundation at the Rice Hotel. I introduced Henry Taube for his morning talk, "Mechanisms of Inorganic Reactions in Solution" (discussion leaders Fred Basolo and Robert Connick) and Leo Brewer for his afternoon talk on "Principles of High Temperature Chemistry" (and discussion leaders Eugene Rochow and Harry Sisler). Some 700 chemists attended this conference.

I left Houston at 3:30 p.m. on Delta flight 874 and arrived in Baltimore (Friendship) at 8 p.m.

Tuesday, November 27, 1962 - D.C.

Wiesner called to discuss with me the practice of the Government's paying summer salaries for university faculty members who are working on research contracts for the government. One of the issues being raised is that people only work two-ninths of their time for the government while they are being paid for three-ninths of their time. Accumulated leave for vacation is a point also. He feels that the whole problem has become acute; people are using this payment practice as a bidding process against universities who don't follow the practice.

I told Jerry that I am very interested in this. It is a problem which has to be approached very carefully because our approach could be interpreted as the opposite of what we had in mind in trying to help the universities. I said I want to give this some thought. Jerry also feels that the practice has been abused in some cases. Harvard and Princeton are now complaining about the practice and with its being talked about on a rather wide scale he is afraid the GAO will pick it up. He said that Secretary Udall and Roger Revelle have talked to him about how best to proceed on the desalinization reactor. He asked my opinion on forming a committee, representing Federal Power and AEC, to get this going. I said I think this is a good idea and I will telephone him or Dave Beckler the name of the person we select. Jerry said that Udall and Revelle are quite sold on the idea. I said there is some skepticism here on its feasibility, although Weinberg is all for it.

I attended the AIF Conference Luncheon at the Sheraton-Park Hotel. Sherman Knapp (President, Connecticut Power and Light) presided; Andrew Beimiller (AFL-CIO), who was introduced by Oliver Townsend, spoke on Labor's view of the Atomic Energy program.

At 3:30 p.m. Chet Holifield and I met with Secretary of the Navy Fred Korth and Commander Alex Kerr (Assistant to Korth) to describe the need for the Camp Pendleton site for the Southern California Edison Company reactor. We mentioned the proposal for the nuclear power plant site at Camp Pendleton which each of us

has just received. Secretary Korth seemed favorably inclined. It was agreed that the legal people from Southern California Edison will get in touch with the legal people in the Department of the Navy in order to ascertain to what extent and what kind of legislation might be necessary. Holifield will arrange this with Mr. James Davenport of Southern California Edison. I asked Secretary Korth to get in touch with me if any other information is needed. He seemed to think an answer will be forthcoming within a week or ten days.

After the above meeting Holifield and I talked in the car at the Mall entrance to the Pentagon. I mentioned Conway's request for a copy of the letter of May 16, 1962, from the Commissioners to Bell concerning a single administrator and the problems we would incur by attempting to obtain permission from the White House and the BOB. Holifield was sympathetic and suggested that we send him a paraphrase of the letter. I also mentioned the President's trip to Los Alamos and Sandia on December 7th and possibly to the Nevada Test Site on December 8th.

I discussed with him the problem of a community for the Las Vegas test site, and said the Commission is really having a hard look at this before they will approve the recommendation of the staff for such a community. I described some of the problems in this connection. He said, since he will be out there for the Rover test on November 30th, maybe he could talk to someone.

We discussed the Commission's Civilian Nuclear Power Report, and he said that so far as he has seen it, he is favorably impressed and thinks it will be a good program if implemented by the BOB and the Administration. He indicated he will make these comments at a press conference this afternoon, if asked.

At 5:30 p.m. I met with President Kennedy and the CP-1 (Fermi) Group in the Rose Garden. A plexiglass model of the CP-1, containing a one-inch cube of some of the original uranium dioxide used in the December 2, 1942, event was displayed. The model is inscribed, "Fuel from World's First Nuclear Reactor, December 2, 1942, Stagg Field Stadium, Chicago, Illinois." I made some opening remarks and the President spoke briefly. 37 of the group's original 43 members attended accompanied by their wives (list attached). I served as Chairman of the AIF-ANS Annual Joint Banquet where I presented to Walter Zinn (as representative of the CP-1 group) a medal commemorating the 20th anniversary of the first chain reaction (copy of remarks and last two pages of program attached). The model is inscribed "Fuel from World's First Nuclear Reactor, December 2, 1942, Stagg Field Stadium, Chicago, IL." Senator John Pastore, who was introduced by Chet Holifield, was the banquet speaker and he spoke highly of our Civilian Nuclear Power Report.

Wednesday, November 28, 1962 - D.C.

At 9:30 a.m. I presided over Information Meeting 217 (notes attached). We had a preliminary discussion of the BOB markup for our FY 1964 budget. BOB has knocked off more than $500 million from our submission. This will be extremely difficult and we will decide the extent of our appeals on Friday. I proposed, and the Commission accepted, that we make a study of the SNAP program along the lines of our successful Civilian Nuclear Power Study.

At 11 a.m. I presided over Commission Meeting 1895 (action summary attached).

ANACOSTIA, yesterday's pre-COACH shot, appears to have had some success in making transuranium elements.

I attended the ANS luncheon honoring Edward Teller as this year's Fermi Award winner at the Shoreham Hotel. Paul Aebersold was the master of ceremonies. I then went to the Sheraton-Park Hotel where I attended the end of the AIF luncheon at which Eklund spoke on the IAEA. I discussed with Eklund the issue of whether the U.S. should have the IAEA Deputy General post (Hall's replacement) or a Deputy Technical post, which Eklund prefers.

Members of CP-1 Group, meeting at the White House, November 27, 1962

Seaborg and President Kennedy

[illegible] GROUP TO BE PRESENT AT WHITE HOUSE CEREMONY

Dr. Harold M. Agnew

Professor Samuel K. Allison

Mr. and Mrs. Hugh M. Barton, Jr.
(and 12-year old son)

Mr. Thomas Brill

Dr. R. F. Christy

Mr. Richard J. Fox

Mr. Stewart Fox

Dr. Carl C. Gamertsfelder

Dr. Alvin C. Graves

Dr. and Mrs. David L. Hill

Dr. Norman Hilberry

Mr. William H. Hinch

Mr. Robert E. Johnson

Mr. W. R. Kanne

Mr. F. G. Koontz

Mr. Harold V. Lichtenberger

Mr. [illegible] Marende

Dr. [illegible] Marshall (Mrs)

Mr. and Mrs. Anthony J. Matz

Mr. George Miller

Mr. and Mrs. George D. Monk

Dr. and Mrs. Henry W. Newson

Mr. Robert G. Nobles

Mr. and Mrs. Warren E. Nyer

Mr. and Mrs. Wilcox P. Overbeak

Mr. and Mrs. Howard Parsons

Dr. Gerard S. Pawlicki

Mr. Theodore Petry

Mr. and Mrs. David R. Rudolph

Mr. Leon Sayvetz

Dr. Frank H. Spedding

Dr. William J. Sturm

Mr. R. J. Watts

Mr. George L. Weil

Dr. and Mrs. Marvin H. Wilkening

Dr. Volney C. Wilson

Dr. Walter H. Zinn

Remarks By
Dr. Glenn T. Seaborg, Chairman
U. S. Atomic Energy Commission
Upon the Reading of a Message From The President
And The
Presentation of a Commemorative Medal to CP-1 Group
AIF-ANS All-Conference Banquet
Washington, D. C.
November 27, 1962

Twenty years ago tonight some of the people in this room were not enjoying the relaxed and festive atmosphere that prevails here this evening. Most of those seated at the table immediately before me were engaged in the last feverish efforts to complete the first nuclear pile capable of sustaining a chain reaction.

The successful accomplishment of that objective on December 2, 1942, is the event we are commemorating tonight. While I was reminded, with Dr. Benedict's introduction, that he and many others were engaged in a vital part of the wartime atomic energy program twenty years ago without even knowing anything of the momentous events taking place at the Metallurgical Laboratory in Chicago, I think it is nevertheless appropriate on the eve of the twentieth anniversary of the first self-sustaining chain reaction that we recognize in a special way the men who had a part in that accomplishment. We are happy to have so many of them here tonight. I know that both they and all the rest of us will be interested in the following message directed to the members of the Atomic Industrial Forum and the American Nuclear Society.

I have the honor and pleasure to present to you a message from the President of the United States:

"It is a pleasure to welcome the members of the American Nuclear Society and the Atomic Industrial Forum assembled in Washington for your annual meetings and joint banquet.

"I think it is especially fitting that you are commemorating the twentieth anniversary of the first self-sustaining chain reaction produced by Enrico Fermi and his associates at the University of Chicago on December 2, 1942. I want to extend a special welcome to those of you here tonight who witnessed that historic event.

"The physical principles verified by Fermi's experiments have made nuclear weapons and a nuclear navy possible -- both vital factors in our national security. Also significant to the future of our nation and our way of life have been the great strides our scientists and engineers have made in advancing the peaceful uses of atomic energy during the two decades since 1942.

"They have discovered hundreds of uses of radioisotopes in science, industry, medicine, and agriculture. They have harnessed the power of the nuclear chain reaction for the operation of central-station power plants. They have developed new research tools and new facilities which have expanded our knowledge of the physical universe. They are adapting the unique advantages of nuclear power systems for use in space vehicles.

"The advances we have witnessed during the past twenty years have stemmed directly from the kind of enthusiasm for scientific adventure inspired by Fermi, and from the imagination and foresight that have characterized the leadership of our new atomic industry. This joint meeting, demonstrating as it does the close association between science and industry, gives confidence of continued success in developing atomic energy for the benefit of free men everywhere."

I know that all of us here this evening join President Kennedy in extending to those who witnessed the December 2 experiment our hearty congratulations and best wishes.

As this occasion demonstrates, the CP-1 experiment has been accorded its rightful place in the history of modern science. Its importance lies not simply in the fact that it produced the first chain reaction in a physical sense, but also because it was the origin of a series of chain reactions which have influenced every aspect of nuclear science and technology.

The chain reaction in reactor development is perhaps the most obvious. Since CP-1 was first started up, hundreds of nuclear reactors have been built and operated in a wide variety of design and operating characteristics. Today we have a whole spectrum of reactors for research and power applications.

The chain reaction initiated by CP-1 has also triggered an exponential growth in research and education. The rise of the nuclear sciences has produced a body of new data as vast as it is exciting. Along with new data has come the need for additional scientists and technicians and a sizeable increase in the number of students studying science and engineering in our universities and graduate schools.

Perhaps the actuality of today is even more exhilarating than the vision which Fermi and his crew saw that December. The applications of nuclear energy are increasing. We now have power sources which can provide us with streams of data over long periods of time from places almost inaccessible to man. The advantages in such areas as seismology, oceanography, and meteorology are obvious. In space, nuclear energy has already found an application and has been cast for a leading part in the exploration of the universe.

The CP-1 began several chain reactions which happily show no signs of ending. Those with us tonight who worked with Fermi perhaps recognize more than most of us the importance of the event we are commemorating. The names of those of the group who are with us tonight are indicated by an asterisk in the list on your program. (Standing)

My own role in this program is the pleasant one of presenting the Atomic Industrial Forum - American Nuclear Society Commemorative Medal commemorating the twentieth anniversary of the start-up of the CP-1. The recipient on behalf of the group is a man who worked on the investigation of the fission process in the late 1930's and who headed a construction crew in assembling the CP-1. As the first Director of Argonne National Laboratory, he built CP-2 and was primarily responsible for the design and development of CP-3 and CP-4. A worthy follower of the Italian navigator who discovered the New World twenty years ago - and an explorer who has continued to map vast stretches of that New World ----- Walter Zinn.

- 30 -

PROGRAM

Banquet Chairman
GLENN T. SEABORG
Chairman, U.S. Atomic Energy Commission

OPENING REMARKS
MANSON BENEDICT
President, American Nuclear Society

PRESENTATION OF COMMEMORATIVE MEDAL
GLENN T. SEABORG

INTRODUCTORY REMARKS
LOUIS H. RODDIS, JR.
President, Atomic Industrial Forum

INTRODUCTION OF SPEAKER
REPRESENTATIVE CHET HOLIFIELD
Chairman, Joint Committee on Atomic Energy,
U.S. Congress

ADDRESS
SENATOR JOHN O. PASTORE
Vice-Chairman, Joint Committee on Atomic Energy,
U.S. Congress

PERSONS PRESENT AT CP-1 EXPERIMENT

Achievement of First Self-Sustained Nuclear Chain Reaction

December 2, 1942

Dr. Harold M. Agnew*
Professor Samuel K. Allison*
Professor Herbert L. Anderson
Wayne Arnold†
Hugh M. Barton, Jr.*
Thomas Brill*
Dr. R. F. Christy
Arthur H. Compton†
Enrico Fermi†
Richard J. Fox*
Stewart Fox*
Dr. Carl C. Gamertsfelder*
Dr. Alvin C. Graves*
Dr. Crawford Greenewalt
Dr. David L. Hill*
Dr. Norman Hilberry*
William H. Hinch*
Robert E. Johnson*
W. R. Kanne*
August C. Knuth
P. G. Koontz*
Dr. Herbert E. Kubitschek
Harold V. Lichtenberger*
George M. Maronde
Dr. Leona Woods Marshall (Mrs.)
Anthony J. Matz*
George Miller*
George D. Monk*
Dr. Henry W. Newson*
Robert G. Nobles*
Warren E. Nyer*
Wilcox P. Overbeck*
Howard Parsons*
Dr. Gerard S. Pawlicki*
Theodore Petry*
David R. Rudolph*
Leon Sayvetz*
Dr. Leo Seren
Louis Slotin†
Dr. Frank H. Spedding
Dr. William J. Sturm*
Dr. Leo Szilard
Dr. Albert Wattenberg
R. J. Watts*
George L. Weil*
Dr. Eugene P. Wigner
Dr. Marvin H. Wilkening*
Dr. Volney C. Wilson*
Dr. Walter H. Zinn*

* Present this Evening
† Deceased

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

UNCL. BY DOE
NOV 86

COPY NO. [illegible]

November 28, 1962

INFORMATION MEETING 217

9:30 a.m., Wednesday, November 28, 1962 - Chairman's Office, D. C.

1. Anacostia Event at NTS, Tuesday, November 27.

The Chairman commented briefly on the event yesterday and the optimistic preliminary results.

2. Camp Pendleton Site for Southern California Edison Reactor Project.

The Chairman reported that he and Congressman Holifield had met with Secretary of the Navy Korth yesterday and that the Secretary was optimistic regarding acquisition of the Camp Pendleton site for the proposed reactor project. The Navy is considering the desirability of a 60-year easement to be obtained through legislation but the matter is still in discussion.

3. Chairman's Meeting with Congressman Holifield, Tuesday, November 27.

The Chairman discussed briefly his meeting yesterday with Mr. Holifield and the following matters were covered in the conversation:

a) Mr. Conway's request for a copy of the Commission's letter to Mr. Bell re reorganization. Mr. Holifield thought a paraphrase copy of the letter would be satisfactory.

b) President's visit to Los Alamos, December 7, and NTS, December 8. (With respect to Mr. Ramey's query, the Chairman said the Commissioners were welcome to be in attendance, noting the crowded schedule of events, and the General Manager said it would be helpful if he were notified at an early date of the Commissioners' plans to attend.)

c) NTS Community - The Chairman informed Mr. Holifield that the Commission was reviewing this matter in depth and Mr. Holifield said he would have the proposed project in mind on the occasion of his visit to the test site on November 30.

d) Civilian Nuclear Power Report. Mr. Holifield commented favorably on the Report and noted that the problem now is follow-on action.

e) Navy use of nuclear power in the Antarctic - The Chairman said Mr. Holifield had suggested the Commission discuss this matter with Admiral Tyree and other appropriate Navy officials. (GM - Henderson)

4. Payment of Summer Salaries for Faculty Members.

The Chairman commented briefly on Dr. Wiesner's call yesterday in which Dr. Wiesner mentioned the possible concern of GAO regarding Government payment of summer salaries. The Chairman requested a report on AEC practice in this regard. (Vinciguerra)

5. Establishment of Committee to Consider Use of Nuclear Power in Water Desalination Program.

The Chairman discussed briefly Dr. Wiesner's conversation relating to Secretary Udall's and Roger Revelle's interest in this program and the desirability of establishment of a committee to consider the matter. The Commissioners discussed briefly the possible proposed committee's charter, and the General Manager recalled the Commission's earlier problems with the Stanford Accelerator Project as a result of disjointed action. The Chairman requested recommendations for AEC representation on the committee and said he would discuss with Dr. Wiesner the committee's terms of reference. (GM - Henderson)

6. Subcommittee on Education of House Education and Labor Committee Hearings, 10:00 a.m., November 29.

The Chairman said he had discussed with Mr. Webb and Dr. Waterman preparation for the hearings and Mr. Hollingsworth reported that Messrs. English and Poor will testify for the AEC and will discuss this afternoon with NASA and NSF proposed testimony for tomorrow.

7. Coordination of Scientific Experiments in the Antarctic.

The Chairman said Dr. Waterman had suggested to him yesterday the National Science Foundation would appreciate being advised of any experiments in the Antarctic in which the AEC is involved. (English)

8. Agreement with Spain re Toll Enrichment.

In response to the Chairman's query, Mr. Ink said discussions are now being held with the Spanish representatives and the Chairman requested preparation of recommendations on a proposed agreement separate from the long-term authority now proposed in the bill in review at the Bureau of the Budget. (Wells)

9. U.S.-U.S.S.R. Exchange Agreement (See Mr. Wells' memorandum of October 8 and Chairman's letter of October 22 to Professor Emelyanov re suggested Protocol to Agreement).

Mr. Hollingsworth said this matter would be scheduled for consideration next week. (Wells - Secy)

10. November 20 Letter from Dr. Larson, Oak Ridge Laboratories re Materials Research.

The Chairman commented briefly on the letter from Dr. Larson which summarizes the Oak Ridge effort in this area and is in response to his observation of the work during his recent visit to Oak Ridge. He suggested consideration of how this information can be made available to NASA and other agencies. (English)

11. Proposed News Release and Visit of Newsmen to Gnome Experiment Site, December 10, 1962.

The Commissioners agreed this is desirable and requested coordination with the White House. (Clark)

12. November 19 Letter from Secretary Gilpatric re Presidential Approval of Stockpile.

The Chairman noted receipt of the letter and the need for early review. (Betts)

13. Canadian Government Decision re Construction of a Heavy Water Reactor.

Dr. Wilson commented on his dinner conversation with Loren Gray, President, Atomic Energy of Canada, Ltd., during which Mr. Gray stated that his government would reach an early decision on the construction of such a reactor. Dr. Wilson noted the desirability of an early announcement by the U.S. of any change in the price of heavy water and Mr. Hollingsworth said this matter will be before the Commission next week. (Quinn-Secy)

14. U.S. Position re Safeguards.

The Chairman reported briefly on Mr. Loren Gray's discussion with him of the statements by representatives of the Government of India with respect to possible U.S. modification of its position on safeguards. Mr. Ramey commented that as a minimum the U.S. should insist on a "best efforts" clause and the Chairman, noting the desirability of U.S.-Canadian agreement on a position here, suggested this be discussed with the Department of State. (Wells)

15. Program for the Production of Plutonium 238 and Curium 244.

To be scheduled for consideration the week of December 3. (Quinn-Secy)

16. Plutonium for French Government Rapsodie Experiment.

To be scheduled for consideration the week of December 3. (Wells-Secy)

17. Report on Use of Snap Devices.

The Chairman discussed briefly the desirability of a Commission report on the use of Snap devices and the Commissioners agreed such a report should be prepared and should include an analysis of the isotopic requirements as related to possible uses and suggested also the usefulness of seminar discussion of the matter with industry and other representatives during development of the report. The Commissioners will consider this matter further at an early date. (Henderson-Secy)

18. NATO Information Program.

Mr. Ink reported that the program has been postponed to January 1963 and that the Department of State is attempting to resolve the Iceland problem.

19. Appointment of IAEA Staff Member.

The Commissioners discussed briefly Director General Eklund's request to the Chairman and the Commissioners agreed that the position in question should be held by a U.S. national. The Chairman said he would discuss this matter with Dr. Eklund prior to the latter's departure. (Henderson-GM)

20. BoB Markup of Fiscal Year 1964 Budget Estimates.

The General Manager and Mr. Corso reviewed briefly with the Commissioners the proposed markup, noting the matter is scheduled for discussion further on Friday, November 30.

PRESENT

Dr. Seaborg
Dr. Wilson
Mr. Ramey
Mr. Palfrey
Mr. Hollingsworth
Mr. Hennessey
Mr. Ink
Mr. Corso*
Mr. Henderson
Mr. McCool

DISTRIBUTION

Commissioners
General Manager
General Counsel
Secretary

W. B. McCool
Secretary

* Attendance last item only.

OPTIONAL FORM NO. 10
5010-104
UNITED STATES GOVERNMENT

Memorandum

UNCL. BY DOE
NOV 86

TO : Robert E. Hollingsworth
Acting General Manager

DATE: November 28, 1962

Approved R E H

Date 11/29/62

FROM : W. B. McCool, Secretary

Original signed
W. B. McCool

SUBJECT: ACTION SUMMARY OF MEETING 1895, WEDNESDAY, NOVEMBER 28, 1962, 11:00 A.M., ROOM 1113-B, D. C. OFFICE

SECY:PAL

Commission Business

1. Briefing on AEC Manpower Utilization - (See AEC 1095/15 and AEC 1095/18)

Discussed.

Commissioner Ramey requested further information on field office personnel breakdowns. (Tackman)

The Chairman noted the Special Committee's study of the problems relating to utilization of National Laboratory or contractor personnel in other AEC activities will be submitted to the Commission. (Tackman)

Additionally, Mr. Palfrey suggested discussion with Mr. Campbell, GAO. (Abbadessa)

2. AEC 1067/10 - Safety Review of Port Operation of Nuclear Powered Naval Vessels

Discussed.

The Commission requested separate meetings with Admiral Rickover and the staff of the Chief of Naval Operations on the matter of port entry criteria for nuclear powered naval vessels. (Ink)

3. Army Reactors Program for the Antarctic (See General Manager's Memorandum of November 20, 1962

Discussed.

Commissioner Haworth requested revision of the memorandum delineating the matter of the Army Reactors Program from the question of Antarctic reactors. (Pittman)

R.E.H.

The Chairman requested that we respond to ~~determination of~~ NSF interest for a nuclear reactor at the ~~Sand~~ Pole Station. (Ink) Pittman

4. AEC 1123 and AEC 1123/2 - Community Plan for the Nevada Test Site

Discussed.

The Chairman requested the staff inform the BOB of the Commission's inclination toward the establishment of a community at the NTS, at a meeting with the BOB staff on Thursday, November 29, 1962, and following the meeting the matter be submitted to the Commission for further consideration. (Bloch)

At 2:30 p.m. I taped a one-half minute statement on the 20th anniversary of the Fermi Pile for the Voice of America.

I called Captain Ed Bauser of the JCAE staff and advised him that the Commission has decided to undertake a study of the SNAP program and issue a report somewhat along the lines of the Civilian Nuclear Power Report. This report would be on a broad scale and would cover requirements for the Air Force and NASA, isotopes, reactors, etc. Our thinking is, if we conduct a study and come out with a good report, attention will be focused on the program. He asked if we have a time schedule, and I told him we do not, but it would not be a hectic schedule like the one for the nuclear power report. He asked if we know who would be doing it and I told him this has not been decided yet. He asked if we plan to make an announcement. I said we do not plan to announce this, but I plan to mention it in the speech I am making tomorrow morning at the Nuclear Space Seminar.

Roger Revelle (Interior) called to say that Interior has studied Weinberg's letter carefully regarding a large reactor for combined production of electric power and fresh water. Also, they have sent three men from their Bureau of Reclamation to Oak Ridge for three days, and they came back full of enthusiasm. Since there still are many uncertainties involved, Interior has proposed--and they have discussed this with Wiesner--the establishment of a small task force, consisting of two members from AEC, two from Interior, and one or two from Wiesner's office, to evaluate the feasibility of such a project. In addition, they envisage the need of an advisory group of economists and engineers from outside the government. This study would take about a year. I pointed out that even with such a task force the AEC would not wish to abdicate to it its responsibilities concerning the reactor. This study would cost $1/2 to $1 million, with AEC and Interior footing the bill jointly. He estimated that it might be about $350,000 for each of us. I expressed some surprise at this amount, and said that we don't have such funds, but would have to put this item into our 1964 budget. Revelle mentioned two initial problems: what to do with the water, and how to sell the power. He said that this water supply would give a whole new lease of life to the Bureau of Reclamation because its supply of water for irrigation is running very low. Upon the completion of this study, and the possible decision to go ahead with the project, he envisages a joint AEC-Interior office, similar to that for ROVER. He will send me a letter, containing all the above information, nominating their two representatives, and suggesting an initial meeting. Revelle said that this project was discussed at the last PSAC meeting, that PSAC approved and he feels that Wiesner is amenable.

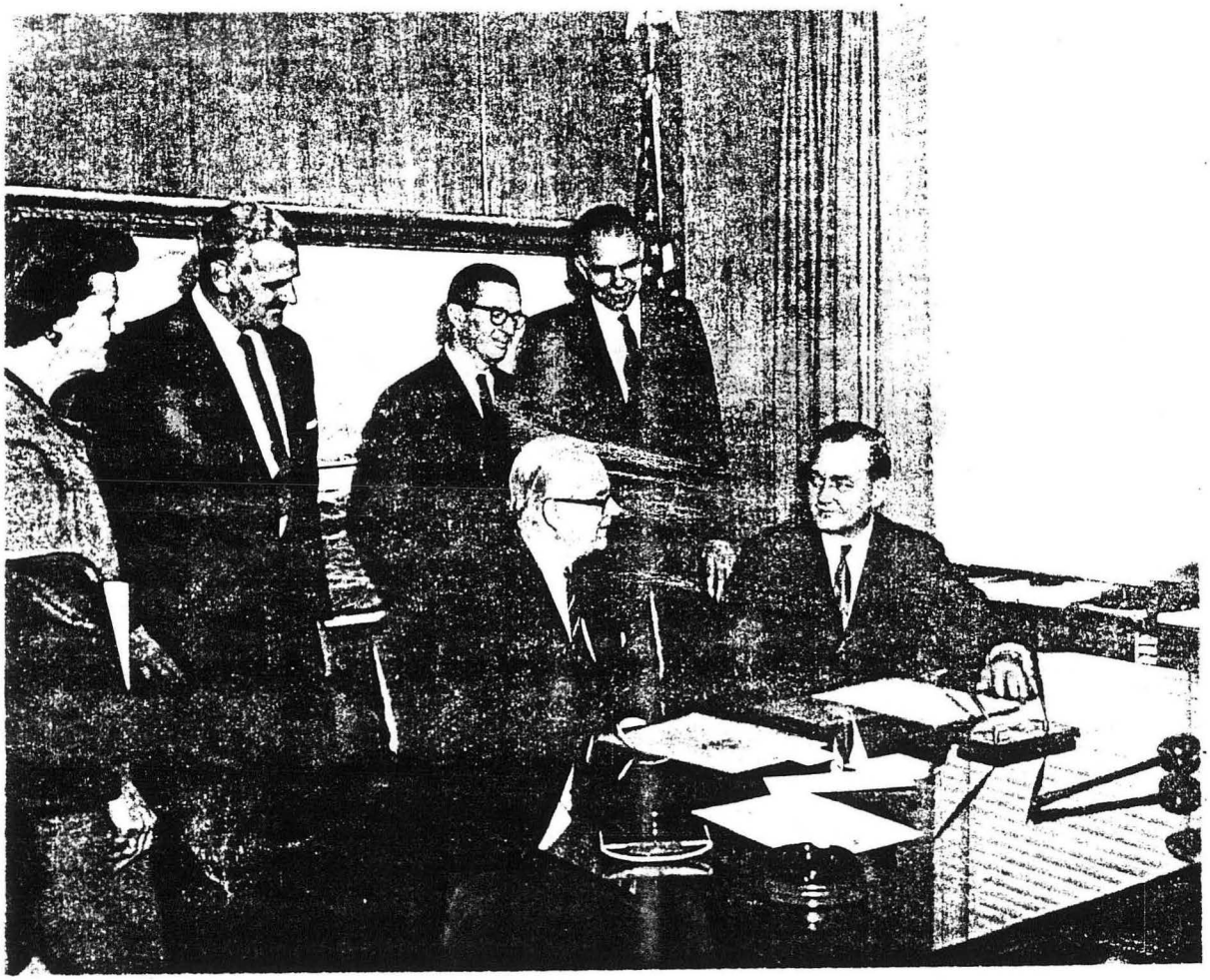
I attended a reception at the Shoreham Hotel hosted by Nuclear Science and Engineering Corporation.

Thursday, November 29, 1962 - D.C.

I gave the opening address at 9:30 a.m. at the AIF/Nucleonics Seminar on Business Opportunities in the Nuclear Space Program (Charles H. Weaver, Vice President, Westinghouse Electric Corporation, Chairman) in the West Ballroom in the Shoreham Hotel. I announced that the Commission is going to make a study of the SNAP program, similar to our Civilian Nuclear Power Study.

I then visited the Atom Fair at the Shoreham with Howard Brown and Vic Schmidt.

At 11 a.m. I attended a signing ceremony at the Department of State. German Ambassador Knappstein and Richard Davis (Assistant Secretary of State for European Affairs) signed the U.S.-German Agreement permitting the entry of the NS Savannah into German ports. Maritime Administrator Donald Alexander also attended; press and photographers were present.



Signing Acceptance Agreement with Federal Republic of Germany on the use of territorial waters and ports by the NS Savannah, U.S. Department of State, November 29, 1962

L to R: First Row: Ambassador Karl Heinrich Knappstein, Germany and Richard H. Davis, Acting Assistant Secretary, Bureau of European Affairs, State Department

Back Row: unidentified, unidentified, Donald Alexander, Seaborg

The other Commissioners and I had a working luncheon and meeting with consultants Dick Neustadt, Arthur Murphy and James Fisk to hear their recommendation regarding the Commission reorganization; they recommend the single administrator.

At 6 p.m. Palfrey and I met with Bundy in his office to discuss the Restricted Data study. Bundy agrees that we needn't prepare legislation for a change now in view of expected JCAE opposition, but can discuss it with the JCAE in January and make a decision then. We also discussed the possible change to a single administrator; Bundy feels the White House favors this as does the Bureau of the Budget.

Friday, November 30, 1962 - Germantown

I greeted Jerry Luntz (Editor and Publisher of Nucleonics) and Howland, Hubbard, Thomas, Bond, Hosmer, Cogswell and Whitmore (Nucleonics business staff) prior to a briefing session for them by the staff.

The Commission reviewed the BOB FY 1964 Budget markup and decided to appeal about $300 million of the $500 million cut. (Meeting 1896, action summary attached.)

I had lunch in the cafeteria with Howard Brown and Dwight Ink to discuss plans for the President's trip to Los Alamos, Albuquerque and Nevada on December 7th and 8th. I will accompany the President on this trip.

Commissioners Haworth, Wilson and I, Frank Pittman and Don Stewart met with Stephan F. Dunn (President), W. W. Bayfield (Vice President), and M. E. Robinson (Director, Transportation) of the National Coal Association to discuss their reaction to our Civilian Nuclear Power Report. Their reaction, like most members of industry, is favorable; however, they feel that the cost of coal will decrease more than we predict.

I met with Spof English to discuss a University of Tennessee-ORNL proposal to a foundation for a grant to support a graduate student program; AEC will support it within the limits of our authority.

I called Bob Hollingsworth at 4:45 p.m. We discussed the proposed letter to Bell on the Nevada community and I said it looked OK to me with a few changes.

Bob said in connection with the funding for the joint AEC-NASA program for ROVER, Seamans has indicated to him that 1. NASA still feels very strongly this should be funded by one agency, 2. NASA has a problem with respect to going to the BOB to request a 1963 supplemental because they have other areas requiring supplementals and they do not wish to aggravate the BOB. Bob suggested to Seamans that he write a letter to the BOB at the same time our letter is released, stating that 1. NASA fully supports this program, 2. NASA is in favor of a single agency funding, 3. If it is decided the program should be a joint funding venture, NASA will have to add their share to their appropriation request.

Finger came on and reported on the Kiwi-B test. He said the plan in running the test was to increase power to a plateau level of 250 megawatts and hold there for about a minute and then go up to full power. Along the way to the plateau there were flashes, but no projectiles; the jet thermocouples failed. They got to about 50% of the design tower above the plateau and there were flashes which indicated something was wrong. They then decided to shut down in a controlled manner without a scram. The reactor is going to be moved and the nozzle taken off to try to find the cause of the flames.

I asked how long it ran at 25% of power and he said one minute, at 250 megawatts and it went up a little further, but at no time did it reach 500 megawatts. I

OFFICIAL FORM NO. 10
5010-104

UNITED STATES GOVERNMENT

Memorandum

D. C. File

UNCL. BY DOE
NOV 86

TO : Robert E. Hollingsworth, Acting General Manager

DATE: November 30, 1962

Approved R.E. Hollingsworth

Date 11/30/62

FROM : W. B. McCool, Secretary Original signed W. B. McCool

SUBJECT: ACTION SUMMARY OF MEETING 1896, FRIDAY, NOVEMBER 30, 1962, 10:40 A.M. ROOM A-410, GERMANTOWN, MARYLAND

SECY: JFG

Commission Business

AEC 1095/21 - Analysis of BOB Markup of FY 1964 Budget Estimates, and AEC 1095/22 - Statistical Summary of BOB Reductions and Requested Restorations

The Commission approved, as revised, the General Manager's Recommended Budget Restorations.

The Commission requested:

1(a) An additional $1.0 million for 630A Nuclear Steam Generator with a notation in the transmittal letter to the BOB that the Maritime Administration supports the program. (Abbadessa)

(b) That Mr. Robb be informed of the Commission's action. (Pittman)

(c) That an additional letter, if necessary, be obtained from Mr. Alexander setting forth details of the Maritime Administration's concurrence as noted in 1(a) above. (Pittman)

2. That Mr. Finger have the flexibility of applying $1.0 to $2.0 million on Advanced Systems from the $33.0 million requested restoration for the total ROVER Program. (Pittman)

3. That $1.0 million be restored to the Physical Research Budget for Low Energy Physics - New Machines. (Abbadessa)

4(a) That 15 regulatory positions be requested in addition to the BOB markup figure of 18. (Abbadessa)

(b) That the Controller be provided justification for these positions. (H. Price)

The Commission requested the BOB be informed of the Commission's rationale for the inclusion of more funds in the budget for the "seed and blanket" program than are needed to complete the current "seed and blanket" study. (Pittman)

The Chairman renewed the Commission's request for early presentation of a discussion paper on the Spectral Shift and other Converter Reactor Concepts (originally requested at Meeting 1893). (Pittman)

The Chairman requested a report on the hearings on Federal Programs in Education held on November 29, 1962 by the Subcommittee on Education of the House Education Labor Committee. (Poor)

The Commission requested that a separate statement be forwarded to BOB staff at an early date on the U.K. Exchange Agreement for plutonium including the status of AEC objectives and alternatives under consideration. (Quinn-Wells)

The Commission requested that a separate statement also be forwarded to BOB staff indicating the Commission's views re use of Christmas Island in future weapons test plans. (Betts-Wells)

The Commission requested that paragraphs 3 and 4 of the letter of transmittal to the BOB re budget restorations be strengthened to more clearly reflect the Commission's position. (Abbadessa)

Training, Education and Information Budget Increase

Subsequent to this Meeting we were informed by the Office of the Controller that the Commission has approved $950,000 for inclusion as an additional item in the TE&I budget request for the Third Geneva Conference.

Commission Agenda for Week of December 3, 1962

Approved, as revised.

asked if the liquid hydrogen moved over the graphite and he said it did. I asked what temperature it reached and he said 2500° F. I asked how much liquid hydrogen was used and he said he didn't know, but they had a capacity of 30,000 lbs.

Finger thinks that perhaps by the time the President visits the project the reactor may be torn apart. I said that this probably would be more interesting for him than watching the shot.

Saturday, December 1, 1962 - D.C.

I worked in the office most of the morning.

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

I took Dianne to Woodward & Lothrops store in Chevy Chase to have her picture taken with Santa Claus.

I read journals at home.

"My Visit with Santa", Dianne Seaborg, December 1, 1962

Sunday, December 2, 1962

I spent the day at home reading AEC papers, journals, etc.

Monday, December 3, 1962 - D.C.

At 9:30 a.m. I presided over Information Meeting 218 (notes attached). We discussed whether we should ask for John Hall's replacement (in IAEA) in the administrative field or a deputy directorship in a technical field (reactors or research). We discussed the draft of Bell's letter to the President (copy attached), which we received for comment, suggesting a large cut in the ROVER program in FY 1964. I sent a letter (copy attached) to Bell in response to the BOB markup of our FY 1964 budget and another letter (copy attached) regarding the proposed community near the Nevada test site.

At noon I participated with President Kennedy in the presentation of the Fermi Award to Edward Teller (copy of Teller's and Seaborg's remarks attached). The ceremony was held outside the President's office in the Rose Garden . Among those attending were, the other Commissioners, Helen, Ken Pitzer, Eugene Wigner, Phil Abelson, John Foster, John McCone, Lewis Strauss, as well as reporters and photographers. Following the ceremony, a luncheon held in the Federal Room of the Statler-Hilton Hotel was attended by approximately 120 people, including those present at the Rose Garden ceremony, in addition to Senator Symington, Congressmen Westland and Hosmer, Jerry Wiesner, Harold Brown, Jerry Johnson, Ragnar Rollefson, President Elkins (University of Maryland), Hugh Dryden, Halaby, John Floberg, John Graham and Alan Waterman.

I called Senator Anderson in connection with the President's visit this weekend to AEC installations to ask if there were anything we could do to assist with arrangements. I said Ramey and I are wondering whether Holifield and Pastore might be invited to be on hand for the visit. Anderson replied that inviting them is the President's responsibility. He said it would be fine with him if they were invited. Anderson then asked us to bear down heavily on the budget. He said he is going to take it to the Senate floor.

After my conversation with Anderson I called Ken O'Donnell. Since he was out of the office I told his secretary we have been giving thought to the President's trip and it occurred to us it might be a good thing if the Chairman of the JCAE (Holifield) and the new Chairman-to-be (Senator Pastore) were invited to at least meet the President at Los Alamos and Albuquerque. I said I would like O'Donnell to give some thought and consideration to this and let me know by tomorrow.

At the Mayflower Hotel I attended a meeting (presided over by John Bailey, Chairman, Democatic National Convention) to discuss plans for a gala to celebrate President Kennedy's second anniversary on January 18, 1963. We were asked to put pressure on our employees to attend the $100 admission affair.

Tuesday, December 4, 1962 - D.C.

At 9:30 a.m. I met briefly with Allan Jones, Manager of the Grand Junction office.

At 11:15 a.m. I presided over Information Meeting 219 (notes attached). Jim Fisk, George Kistiakowsky, Det Bronk and Jim Killian were names I suggested to the Commission to be considered as the replacement on the GAC for Eger Murphree. We set up methods for the conduct of a study on SNAP (which I announced at the AIF-Nucleonics Symposium last Thursday); Haworth will lead it as he did the civilian nuclear power study. I asked Ramey to watch over the development of the ROVER project.

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

UNCL. BY DOE
NOV 86

COPY NO. 45

December 3, 1962

INFORMATION MEETING 218

9:35 a.m., Monday, December 3, 1962 - Chairman's Office, D. C.

1. Commissioner Ramey's Report on the November 30 ROVER Test

2. Letter to Director of the Budget Bell re NEC Community

Mr. Ramey will review the letter and the Chairman will dispatch it today. (Henderson)

3. Letter to Director of the Budget Bell re FY 64 Budget Mark-up

The letter will go forward today after review with Mr. Ramey. The Chairman noted receipt of Mr. Webb's draft memorandum to the President re the ROVER program and requested reference to the draft memorandum in our letter to the Bureau. (Henderson)

(Dr. Haworth entered the meeting at this point.)

4. Enrico Fermi Award Ceremony Arrangements

5. Restricted Data Category Study

Mr. Palfrey reported briefly on the Chairman's and his discussion of November 29 with Mr. Bundy in which they covered the AEC's recent meetings with Departments of State and Defense officials. Mr. Bundy emphasized his hope that improved administrative procedures can be affected, agreed that discussions should be held with the Joint Committee and that any proposed statutory revisions should be separated from the forthcoming Presidential Legislative Program. It is recognized that the due date of the report to the White House will be extended and Mr. Palfrey is preparing a letter to Mr. Bundy for the Commission's review.

6. Letter to the Joint Committee re Commission's Letter on Reorganization

The Chairman said the proposed letter will be reviewed with the Commissioners. (Henderson)

7. U.S. Replacement for IAEA Position

The Chairman discussed briefly his conversations with Drs. Smyth and Eklund and the Commissioners agreed this matter now requires further discussion with the Department of State. The Chairman said he had asked Dr. Eklund to allow further time for these discussions.

8. Committee for Study of Large Reactor for Desalinization

The Chairman reported on his discussion with Mr. Roger Revelle and said Interior has in mind a study of perhaps one year for the need of such a reactor; the committee would be composed of representatives from AEC, Bureau of Reclamation and Dr. Wiesner's Office. The Chairman suggested representatives be a Commissioner and a senior staff member and said he had asked Mr. Revelle for a letter setting out the terms of the committee's proposed study.

9. UN Approval of Third Geneva Conference on Peaceful Uses

10. Proposal for Barter of Surplus Farm Products for Uranium from the Union of South Africa

The Chairman discussed briefly the report from Jesse Johnson discussing Mr. Templeman's proposal to the Department of Agriculture, and the General Manager said he would review the proposal. (Johnson)

11. Chairman's Letter to General Taylor Commanding General Starbird and Admiral Mustin re Joint Task Force 8

12. Status of Joint Task Force 8 and Test Planning

The Chairman said he would discuss this matter with Secretary McNamara during their forthcoming trip. (Henderson)

13. Intelligence Matter

14. Photo Analysis of Soviet Test Site

Mr. Ramey requested an analysis of available photographs of Soviet test sites with reference to possible information on underground tests. (Betts/Reichardt)

15. Dow--B/W Proposal re Production of Isotopes in Yankee Reactor

Dr. Wilson reported briefly on his discussion with company officials and the Chairman requested further discussion of the matter at Wednesday's meeting during Commission consideration of AEC 853/10 - Production of Plutonium 238. The Chairman also requested preparation of a note on the possible need for isotope production for use in discussions with the Bureau of the Budget. (Quinn)

16. Change in Price of Cobalt

Mr. Palfrey mentioned General Electric's concern re the possibility of AEC's plan to lower prices and Mr. Hollingsworth said this matter is under review for further discussion with the Commission. (Aebersold)

17. Mr. Ramey's Visit to Proposed Site for NTS Community

Mr. Ramey reported briefly on his visit to the proposed site, his discussions with AEC staff, and the general reaction of the members of the Joint Committee and the Joint Committee Staff.

18. Accident at Marietta, Georgia

The General Manager reported on the accident, the derailment of two cars, and said there had been no fire, no release of radio-activity, and injuries to two couriers, but not serious injury.

19. NASA Letter to BoB re NTS Community

Mr. Hollingsworth said he had discussed this matter with Mr. Seamans and the NASA letter will go forward today supporting the community, but recommending single agency funding.

20. Coordination with NASA re Support of ROVER Program

The Chairman asked the General Manager to discuss this matter with NASA officials.

21. General Manager's Visit to the Lockheed RIFT Facility

PRESENT		DISTRIBUTION
Dr. Seaborg	General Luedecke	Commissioners
Dr. Wilson	Mr. Hollingsworth	General Manager
Dr. Haworth*	Mr. Hennessey	General Counsel
Mr. Ramey	Mr. Henderson	Secretary
Mr. Palfrey	Mr. McCool	

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W. B. McCool
Secretary

*Partial Attendance

EXECUTIVE OFFICE OF THE PRESIDENT
BUREAU OF THE BUDGET
WASHINGTON 25, D.C.

DO FILE

DOWNGRADED AT 3 YEAR INTERVALS;
DECLASSIFIED AFTER 12 YEARS

OFFICE OF
THE DIRECTOR

December 1, 1962

UNCL. BY DOE
NOV 86

MEMORANDUM FOR DR. SEABORG
MR. WEBB

Attached is a draft memorandum I have prepared for the President regarding the Rover project. Before sending it to him, I would appreciate your comments.

DB

Director

DRAFT
11/30/62

EXECUTIVE OFFICE OF THE PRESIDENT

BUREAU OF THE BUDGET

WASHINGTON 25, D. C.

DOWNGRADED AT 3-YEAR INTERVALS;
DECLASSIFIED AFTER 12 YEARS

UNCL. BY DOE
NOV 86

MEMORANDUM FOR THE PRESIDENT

Subject: The Rover Program

The Rover program to develop a nuclear rocket has become a funding and policy issue during the course of the fiscal year 1964 budget process, due to the large expansion in program (100% over 1963) proposed by the Atomic Energy Commission and the National Aeronautics and Space Administration. This memorandum summarizes the issues, the proposals of the two agencies, and the recommendations of Dr. Wiesner and myself.

Background

The Rover program, which was begun in 1955, is now a joint AEC-NASA effort. In August of 1960 a joint office, called the Space Nuclear Propulsion Office, was established by agreement between NASA and AEC to manage the Rover program, although the agency responsibilities remain divided, AEC assuming responsibility for the reactor development and NASA for all non-nuclear components of the engine and stage and for the integration of the components into a flight system.

The basic concept of nuclear heat transfer rockets such as Rover is based on thrust obtained from the rapid expansion of hydrogen gas through a nozzle after being heated by passing through a very hot nuclear reactor. In theory this concept will yield more thrust per pound of hydrogen used than is obtainable with chemical rockets. Burning time is limited by the

amount of hydrogen carried in the rocket tanks, rather than by the much longer possible operating time of the nuclear reactor. The program to develop this concept is divided into three separate projects: (1) the KIWI project (Los Alamos Scientific Laboratory) to develop a prototype reactor for a nuclear engine, plus follow-on work to develop a more advanced reactor known as PHOEBUS; (2) the NERVA project (Aerojet-General/ Westinghouse) to develop a nuclear engine for flight test; and (3) the RIFT project (Lockheed Aircraft) to develop a rocket stage in which to test the NERVA engine. The total funding in FY 1963 amounts to about $187 million, and agency requests for 1964 amount to about $360 million. (Details shown in Attachment A.)

Specific program objectives for Rover beyond the development of a prototype reactor were long contemplated but not approved until the review of space programs in the spring of 1961. At that time, it was decided to initiate the development of NERVA flight engines concurrently with the further development of the KIWI prototype reactor. This decision was announced in terms of accelerating development of the Rover nuclear rocket in your address to Congress on May 25, 1961, along with the announcement of the national objective of attaining a manned lunar landing in this decade.

The nuclear rocket was not then and is not today viewed as a requirement for attaining the manned lunar landing objective. As seen by NASA and AEC, the initial uses for the nuclear rocket would be to carry heavy payloads to the moon and for planetary flights. The nuclear rocket is conceived as

a third stage on a Saturn C-5 which would double the C-5's capability. Radiation hazards will add additional problems, particularly if the nuclear rocket is used as a first stage within the atmosphere.

The work of the Los Alamos Scientific Laboratory has not yet produced a proven KIWI prototype reactor suitable for development into a NERVA flight engine. The AEC and NASA funding requests for 1964, however, assume that the current KIWI reactor model (KIWI-B-4) will prove out successfully in the near future and that the NERVA engine and RIFT vehicle should proceed on an urgent basis. A costly ramification of these plans would be a new Government community adjacent to the Nevada Test Site which is favored, but not yet formally proposed, by both agencies.

Issues

The issues concerning Rover involve both technical and policy considerations. There is general agreement that tests of the KIWI reactors to date have produced unexplained technical problems (e.g., cracking in the reactor core). There is outside disagreement with the AEC-NASA assumption that successful tests of the current KIWI model will solve these problems. Dr. Wiesner and a panel of your Scientific Advisory Committee have reported that a successful test of the follow-on KIWI reactor model, now scheduled for August 1963 at the earliest, will be needed to prove that the technical problems are overcome.

The second issue is the rate at which Rover development should be pushed in the absence of an urgent approved mission for the Rover rocket. If approved missions did exist on a time schedule which required urgent development of

the nuclear rocket, a case would exist for concurrent large-scale effort on both the KIWI reactor experiments and on NERVA engine development despite the technological problems with the reactor. The argument can also be advanced that the nuclear rocket development program should be pursued on an urgent basis simply because it increases the capabilities of rockets now under development and advances the state of propulsion technology. This view has often been expressed by the members of the AEC, including the Chairman, and by members of the Joint Committee on Atomic Energy. Alternatively, it can be argued that in the absence of an urgent mission, large-scale effort should not be expended on the NERVA engine and on the RIFT rocket stage until advances in reactor technology assure that a large-scale engine development program is warranted.

Recommendations

Recognizing that technical problems will probably slow down the rate at which the NERVA engine development can effectively proceed, and in the belief that no more urgency attaches to this project than to other developments aimed beyond currently approved objectives, it seems to me that engine development should be limited to preliminary work without extensive heavy hardware until ground tests demonstrate a successful prototype reactor. Specific budgetary recommendations are indicated in detail in Attachment A. They would accomplish the following:

1. The 1964 funding for KIWI reactor development would permit continuation of those efforts at an expedited rate.

2. The 1964 funding for the NERVA engine development would be continued at levels attained at end 1963; this should provide for orderly development at the rate permitted by the advances in reactor technology which can be expected to result from the KIWI efforts.

3. The development of the RIFT nuclear rocket stage would be deferred for a year.

Dr. Wiesner is in agreement with these recommendations. Strong adverse congressional reaction could be expected from the Joint Committee on Atomic Energy. Senator Anderson would probably feel particularly strongly

Director

Attachment

Attachment A

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NOV 86

FY 1964 BUDGET REVIEW

ROVER
Summary

(In millions)

	FY 1962	FY 1963	Agency request	BOB tentative recommendation
NASA				
NERVA	$19.3	$43.2	$87.8	$60.0
RIFT	1.0	3.7	15.0	5.0
Facilities:				
RIFT	--	--	25.0	-0-
RIFT Mfg.	--	--	8.3	-0-
Other	22.5	10.6	18.5	11.8
SNPO	.3	5.7	2.0	2.0
SR&T	6.2	18.1	33.5	20.0
Total, NASA	49.3	81.3	190.1	98.8
AEC				
KIWI	24.5	30.0	15.3	12.6
Adv. Reactor System	3.0	5.7	26.7	21.8
NERVA	7.4	30.9	78.3	45.0
All other operating costs.	6.0	8.3	12.0	11.9
Goods & service on order .	7.9	10.8	29.4	7.5
Facilities	13.5	19.9	8.0	3.0
Total, AEC	62.3	105.6	169.7	101.8
TOTAL, ROVER	111.6	186.9	359.8	200.6

November 29, 1962

DC FILE

DEC 3 1962

UNCL. BY DOE
NOV 86

Dear Mr. Bell:

The Commission has just completed its review of the reductions proposed by the Bureau of the Budget to the Commission's fiscal year 1964 budget estimates which were given to Commission staff on November 26. We are submitting to your staff an analysis of the Commission's position with respect to the reductions proposed by your agency. There are a number of items for which we are requesting reconsideration which I will touch upon briefly below. However, I must emphasize at this point that the request of the Commission for 1964 funds was formulated only after the most searching reviews and serious considerations by the Commission. Therefore, although there are a number of items for which we are not requesting reconsideration, the Commission believes most strongly in their necessity and worth.

While the comments submitted to your staff do not propose restoration of the reductions made in the raw materials and special nuclear materials programs associated with the proposed stretch-out, it should be made clear that in the event the deferrals under the stretch-out do not materialize as hoped, we would expect support of the Bureau of the Budget for a supplemental appropriation request to cover such deficiencies in fiscal year 1964.

It should also be noted that while we are not requesting full restoration of the reduction you have made in the weapons budget, on the basis of a reduced number of weapons underground tests, this is only in the context of the Commission's understanding that a very substantial reduction from the original AEC budget submission is necessary. This should in no way be construed to mean the Commission believes the originally proposed program is not desirable. On the contrary, we firmly believe there is a sufficient number of very worthwhile new weapons developments to support fully the level of weapons testing contemplated in our regular budget submission.

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With respect to the reductions proposed in the Commission's reactor development program, you will note a number of items for which reconsideration is requested. These fall generally into two categories. The first represents activities which the Commission considers to be consistent with announced national goals and objectives, the deferral of which would constitute reversal of established policies. Under this category fall the requests for restoration of reductions in such programs as Rover, SNAP and our cooperative civilian power efforts including the construction funds for a prototype civilian power reactor which the Commission believes most strongly should be supported at the levels requested. The second category represents activities which, while perhaps not of a policy nature, are, in fact, considered extremely important by the Commission in the conduct of its reactor development program.

The restorations requested in the other programs of the Commission generally reflect considerations similar to those which resulted in the appeals under the second category of the reactor program.

Finally, on the basis of guidance received from your staff, we have also set forth in the aforementioned document proposed amendments to the Commission's 1964 budget estimates to reflect new developments since the time of our regular budget submission to you. Of particular note is an amendment to permit research and development in merchant marine reactor technology beyond the N.S. Savannah, and an amendment to provide funds for a Third Geneva Conference to be held in the Fall of 1964 in accordance with the unanimous action of November 29, 1962, of the United Nations General Assembly.

Sincerely yours,

(Signed) Glenn T. Seaborg

Chairman

Honorable David E. Bell
Director, Bureau of the Budget

DG FILE

DEC 3 1962

UNCL. BY DOE
NOV 86

Dear Mr. Bell:

In our letter of September 28, 1962, transmitting the Commission's budget estimates for the fiscal year 1964, we indicated that in connection with the recruitment of personnel for work at the Nevada Test Site under the Space Nuclear Propulsion Program (Rover), it appeared that some housing and other community facilities would have to be provided near the test site if we were to recruit and retain the quality of personnel needed for this program. We further indicated that we had a number of studies underway to determine what would be needed in the way of housing and community facilities and that upon completion of these studies and their review, it might be necessary to amend the budget submission to include amounts for this purpose.

These studies, which include an opinion survey of current and prospective employees at the test site, have now been essentially completed and evaluated by us. On the basis of these studies, the advice we have received from our Rover contractors and the recruiting experience they have undergone thus far, we have concluded that a community near the test site will be required if we are to assure successful execution of the program.

As you know, the nearest community to the test site is Las Vegas, located at a distance of approximately 90 miles from the Rover test area. The commuting time by car or bus is approximately two hours each way and this is a real deterrent to recruitment and retention and effective performance of the type of technical people who are most urgently needed in the program.

We have given a great deal of study to alternate means of alleviating the problem such as installing and providing rail travel, and relocating the test facilities closer to an established community. None of these appear feasible as a solution to the problem. We, therefore, have determined that such a community should be started

as early as possible in calendar year 1963 which, allowing approximately 18 months for construction, would begin to provide housing in mid-summer of 1964, at which time the total employment at the Nevada site is estimated to reach 1700.

In analyzing the requirements for such a community, we have had an architect-engineer company prepare a preliminary plan and estimates for a community providing initially for approximately 800 housing units together with a motel of approximately 100 rooms and the necessary community facilities such as utilities, schools, etc. The basic site plan would provide for expansion to approximately 1500 houses. The estimated cost of the community including the initial 800 housing units is $33 million. In addition, if such a community were operated by the Government, similar to the operation of the communities at Los Alamos, Oak Ridge and Hanford, it is estimated that the annual cost to the Government of such operation would be on the order of $1 million, representing the difference between the total cost of operation and the expected revenues from housing rentals and other revenues.

In planning for such a community, however, we would hope that private builders would undertake the construction of the housing units and commercial facilities. Under such a plan it would be expected that the Government would construct the municipal-type facilities and would install the necessary streets, sewers, and utilities. It would then be possible to request proposals from builders to construct the necessary houses and commercial facilities on land developed by the Government. The Government could then select the proposals which would best meet the needs of the program. The Government would build the houses and commercial facilities only if private builders do not do so on reasonable terms.

In this connection, we have explored the interest of private developers in building such houses. Those showing any interest have indicated that they would be interested only if mortgage insurance and financing under FHA and FNMA programs were available and, in addition, if adequate financial guarantees were provided by the Government. Their requirement for such insurance and guarantee protection stems from the high risk nature of the enterprise due to the "one industry" nature of the proposed community and its sole dependence on the work program at the Nevada Test Site which could be drastically curtailed or eliminated by the Government at any time. We are actively exploring with HHFA the detailed arrangements, including necessary legislation, that

would be required for such a program. While our explorations are not complete, the indications at present are that even though the Housing agencies might participate materially, the basic guarantees would still have to be financed by AEC-NASA. In other words, a program involving private construction and ownership of dwelling units would at least, in its initial stages, require the assumption by AEC-NASA of contingent liabilities that might be equivalent to the full cost of the development.

The above briefly sketches the alternate methods of providing the necessary community facilities which we and NASA are presently exploring with our contractors and the HHFA.

We will submit to the Bureau of the Budget by early January, draft legislation which would encompass the authority required to undertake the construction of the community under any of the plans described above. We hope that such legislation can be submitted to the Congress and acted upon early in the new session and that funds would be available to start construction of such a community soon after passage of the necessary legislation. The staff of the Commission, NASA and the Federal Housing Administration have briefed representatives from your staff on this program.

In order that we may meet such a schedule, the Commission is therefore requesting your approval of supplemental appropriations for the fiscal year 1963 in the amount of $19 million to be appropriated to the Commission. We expect the other $19 million required to fund the total construction will be requested by the NASA. The requests for separate funding for this project are based on the position taken by the Congress in connection with the appropriation in fiscal year 1963 of $9 million for providing a dual-lane highway from Las Vegas to the test site. You will recall that the total amount had been requested as an appropriation to the Commission, but the Congress appropriated only one-half of the amount to the Commission, requiring the balance to be funded by NASA. In its report on this project, the Congress indicated that in connection with joint AEC-NASA programs, it would be expected that NASA carry its full share of all costs involved. The Commission, of course, would have no objection to single-agency funding if this is the desire of your office and if the committees of Congress have been informed of your desires.

Our joint request for the full amount of the funds ($38 million) which would be necessary in the event of full construction by the Government, is based on the fact that we do not have at this time, nor can we anticipate what kinds of proposals may be received from private builders in the event that the construction of housing is undertaken in this manner. Furthermore, we do not know at this time the amounts of guarantees which might be necessary in the event that satisfactory proposals are received. The full amount for such construction is therefore requested as a supplemental appropriation for the fiscal year 1963.

Sincerely yours,

[illegible]

Chairman

Honorable David E. Bell
Director, Bureau of the Budget

cc: Chairman (2)
Gen. Mgr.(2)
Congroller
Secretariat (2)
Gen. Counsel
Construction
ACBudget - Yellow
Chron

Harold Finger - SNPO

Dep. Controller Controller OGC CONS AGM AGMO DGM GM

FJMcCARTHY:dgj
11/30/62 11/ /62

Presentation of Enrico Fermi Award to Dr. Edward Teller by President Kennedy at the Rose Garden of the White House, December 3, 1962

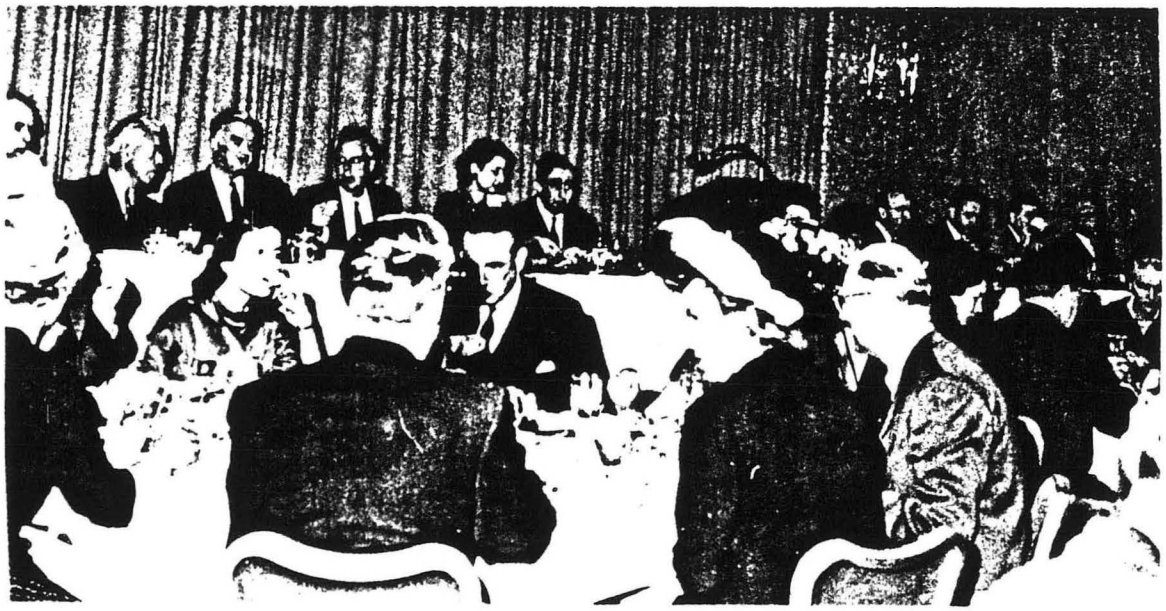
L to R: Seaborg, Teller and President Kennedy

Enrico Fermi Award Luncheon honoring Dr. Edward Teller, Statler Hotel, Washington, D.C., December 3, 1962

L to R: Jerome Wiesner and Lewis Strauss

Enrico Fermi Award Luncheon honoring Edward Teller, Statler Hotel, Washington, D.C., December 3, 1962

L to R: Senator Symington, Pitzer, Mrs. Seaborg, Teller, Seaborg, Wilson, Representative Hosmer, Wiesner



L to R: (Head Table) Representative Westland, McCone, Senator Symington, Pitzer, Mrs. Seaborg, Teller, Wilson, Representative Hosmer, Wiesner, Strauss. (Round Table) Mrs. Palfrey, General White, Seitz, Mrs. Westland

Enrico Fermi Award Ceremony
December 3, 1962

Remarks by Dr. Glenn T. Seaborg

The ceremony today honoring Dr. Edward Teller is particularly auspicious. It falls on the twentieth anniversary of man's harnessing of the awesome power of the atom through a controlled nuclear chain reaction in the first nuclear reactor - the Fermi pile. It is fitting that the Enrico Fermi Award, honoring our Nation's outstanding men of nuclear science, should be named for Dr. Fermi, its first recipient.

Dr. Edward Teller, the sixth recipient of this Fermi Award, stands along with Dr. Fermi as one of the true pioneers of nuclear science. His earlier, significant contributions, during the thirties, to physical chemistry and nuclear physics had already identified him as a man to be reckoned with. When his adopted country became immersed in the world conflict of the forties, Dr. Teller joined the Manhattan Project and made substantial contributions to the successful development of nuclear weapons, both at the Metallurgical Laboratory in Chicago and at Los Alamos. After the war, of course, Dr. Teller developed, with S. Ulam, the principle that ensured successful development of the hydrogen bomb.

During the last decade, Edward Teller's contributions have not diminished. He continued to make important contributions to nuclear

physics. He was instrumental in establishing the Livermore Laboratory of the E. O. Lawrence Radiation Laboratory in California, where he served as Director from 1958 to 1960. His continued efforts to strengthen the security of the United States and to ensure the peace, and his initiation of the study of peaceful nuclear explosions, must not be overlooked.

I am sure that I could continue for some time enumerating Dr. Teller's contributions, but I believe they are summed up quite succinctly in the Citation which I have the pleasure to present to him: "For contributions to chemical and nuclear physics; for his leadership in thermonuclear research; and for efforts to strengthen the national security."

REMARKS OF EDWARD TELLER UPON RECEIPT
OF THE ENRICO FERMI AWARD

December 3, 1962

The honor of receiving the Enrico Fermi award leaves me particularly happy because of the association with the distinguished scientists who have received this award in earlier years. Each of these men I admire and for each of them I feel a warm friendship.

The first recipient, Enrico Fermi, was one with whom I was very close for many years. I had the good fortune to work with him in the exhilarating field of pure science, and I felt his strength and support in our great and serious adventure on starting the development of atomic energy. In reading recently the flattering citation in the award, I was reminded with great pleasure of the only compliment I ever got from Enrico. He said: "You are the only monomaniac with several manias." In addition to his many well known discoveries of the laws of nature, I now particularly appreciate that he has helped to establish an exception from man-made law: the tax exemption.

This award has made me very conscious of the fact that at all phases of my scientific study I have been helped by friends and colleagues, and that my own contribution is a small fraction of the actual visible achievements. On this occasion I want to express my gratitude for the great help that I have received, particularly, from Lewis Strauss, John McCone and Chairman Seaborg.

I remember with affection my friends in Los Alamos, with whom I shared the early work on thermonuclear reactions, and the exceptional contributions of all the employees at the Livermore Laboratory with whom I had the great pleasure to collaborate in the last ten years. Literally thousands of people have contributed to our common task. Two of the most outstanding among these are with us today. John Foster is the foremost among the group on whom our strength and our guarantee for peace depend. Harold Brown, in addition to his other accomplishments, had the foresight to stimulate the program for the peaceful uses of nuclear explosives. He recognized that thermonuclear reactions can become cheap and clean tools to be used on the greatest scale for the benefit of mankind. The presence of these men makes it more wonderful for me to receive the Fermi award.

-0-

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

UNCL. BY DOE
NOV 86

COPY NO. 15

December 4, 1962

INFORMATION MEETING 219

11:15 a.m., Tuesday, December 4, 1962 - Chairman's Office, D. C.

1. Enrico Fermi Award Ceremony

2. November 30 Letter from Secretary Gilpatric re Determination on Transmittal of Information

The Chairman noted receipt of the letter of request and asked for early staff review. Mr. Ink reported that the determination is in review and discussions will be held with State Department officials today, looking to early action. The Commissioners requested the matter be scheduled for consideration Wednesday, December 5, if possible. (Ink/Betts)

3. Possible Luncheon with Dr. Darling, Director ABCC

4. AEC-DOD Procedures re Safety Rules

Mr. Ink noted the Commission may soon be involved in discussion of other missile safety rule procedures.

5. Commission Report on Use of SNAP Devices

The Chairman said the staff should develop a study outline with suggestions on who should be involved in the study at the staff level, what industrial and other representatives should be contacted, and particularly who would be responsible for development of the preliminary draft for discussion with Commissioner Haworth. Coordination with other appropriate agencies would then follow. The Chairman added that the Atomic Industrial Forum report on Communication Satellites would be of interest here. (English)

6. Letter from Department of Interior re Committee for Study of Nuclear Reactor for Desalinization Project

The Chairman noted the Commission awaits a letter from Roger Revelle and added that AEC committee participation will involve a Commissioner and senior staff representative.

7. Commission Interest in ROVER Program

The Chairman said Mr. Ramey will follow this matter for the Commission. (English)

8. UK Requirements for Port Entry of Nuclear Navy Vessels

The Chairman noted receipt of the UK's aide memoire and Admiral Rickover's draft reply to the Secretary of State. Mr. Ink suggested discussions with Messrs. Price and Beck regarding reciprocity on requirements the U.S. would set out for entry of other nuclear ships in our ports. The Chairman has asked Mr. Palfrey to review the draft reply to the Secretary of State. (AGM-DR)

9. Commission Dinner Meeting with Joint Committee January 21, 1963 at the Metropolitan Club

The Chairman requested arrangements be explored for a dinner meeting on this date.

10. Chairman's Luncheon with BoB Director Bell Today to Discuss FY 1964 Budget Estimates

11. Readiness Status of Joint Task Force 8 and Status of Christmas Island

The Chairman requested a report for his discussions with the Secretary of Defense later this week.

12. Information Meeting Thursday, December 6, 9:30 a.m., Germantown

Noted.

13. Preliminary Report on Nuclear Tests

14. Increased Special Nuclear Materials Allotments for Educational Institutions

The Commissioners had no objections to the General Manager's proposal. (Poor)

15. AEC-DOD Agreement re Weapons Effects Research

Noted.

16. Security Survey in Germany and SHAPE

Mr. Palfrey said he would discuss the preliminary report with Mr. Gaergi. (Waters)

(Mr. Palfrey left the meeting at this point)

17. NS SAVANNAH Labor Problems

Mr. Ink reported briefly on the labor dispute and said Maritime Administration is meeting with union officials later today at Long Beach.

18. Interview of LASL and Livermore Personnel by Lance Lamont, Time Magazine

The Commissioners agreed the AEC could not deny interviews, but should develop some guidance for the laboratories and requested coordination with the White House. (Ink)

PRESENT		DISTRIBUTION
Dr. Seaborg	Mr. Hennessey	Commissioners
Dr. Haworth	Mr. Ink	General Manager
Mr. Ramey	Mr. Brown	General Counsel
Mr. Palfrey*	Mr. McCool	Secretary

W. B. McCool
Secretary

*Partial attendance

I had a luncheon meeting with Dave Bell and Elmer Staats at the White House Mess from 1:10 p.m. to 2:30 p.m. The purpose of the meeting was to discuss the BOB markup of our FY 1964 budget and some of the philosophy behind the AEC appeal. I reminded them of the Democratic platform on atomic energy by showing them a copy of it. Bell wanted to know in which ways I feel that the BOB budget is inconsistent with the platform. I said I think in its lack of a prototype atomic power plant and its ROVER budget. I said I have three main areas that I want to discuss, and the first one is the civilian nuclear power program and the fact that the budget seems to be inconsistent with the recent AEC report to the President on Civilian Nuclear Power. I said that in this regard the deletion of the prototype is especially important and that the AEC will designate the spectral shift as the prototype. I described for them the time schedule for the authorization and design and the appeal to industry for proposals, etc. They requested that I give them a more detailed time schedule, including when the new obligation authority will be needed. I said I will furnish this.

I said the second item is that the ROVER budget represents a slowdown. I said I think there is a misunderstanding as to the role of the various tests and explained to them the KIWI test schedules and how they are tied into the NERVA schedule. I said we need all the KIWI and NERVA funds and some of the RIFT funds to make any sensible schedule. I also told them that I feel very strongly about the SNAP-50 program and that to cut it as they have done would slow its rate well below that which is technologically feasible. I also mentioned, both in the case of the civilian nuclear power and the nuclear space programs, the implications among members of the Joint Committee for the cuts.

My third item was that the Administration is being regarded with some disillusionment by a number of university presidents in view of its lack of progress for aid to higher education. Many are looking for an implementation of the Seaborg Panel Report of the PSAC. I said in this regard I think the high energy physics laboratory for the University of Chicago is a symbol and I think they would do well to put it back into our budget.

I mentioned the reorganization of the Commission and gave them a brief account of how this has developed since the new Commissioners came in. I said the committee of three consultants--Dick Neustadt, Arthur Murphy and James Fisk--have been working on it. I said that we have their report which favors a single administrator but that it would be better to delay the preparation of legislation on this for awhile until it has been further discussed with the present Commission. (Ramey is against it.)

At 2:15 p.m. I presided over Commission Meeting 1897 (action summary attached). We met first with Rickover and later with Navy Department representatives to discuss a new system for determining safety criteria for entry of U.S. ships in U.S. and other ports. The Commission also discussed, first alone and then with Rickover, U.K. demands for design information as prerequisite for safety determination precedent to the entry of nuclear ships into U.K. ports.

I called Ken O'Donnell to tell him that I have just learned that the University of California wants a top administrative representative of the University present when the President visits Los Alamos; accordingly, they have designated Ed Pauley, a regent, to be there.

From 5 p.m. to 6 p.m. I met with the Tightrope group at the Metropolitan Club. Halaby, Boyd, Swidler, Dixon, Katzenbach, Minow and Congressman Albert Thomas were present to discuss agency organizational matters, the need for pay raises at agency head level, etc.

5010-104

UNITED STATES GOVERNMENT

Memorandum

DECL. BY DOE NOV 86

TO : A. R. Luedecke, General Manager

DATE: December 4, 1962
Approved 12/4/62
A. R. Luedecke
Date 12/4/62

FROM : W. B. McCool, Secretary

SUBJECT: ACTION SUMMARY OF MEETING 1097, TUESDAY, DECEMBER 4, 1962, 2:15 P.M. ROOM 1113-B, D. C. OFFICE

SECY:PAL

Commission Business

1. AEC 1067/10 - Safety Review of Port Operation of Nuclear Powered Naval Vessels

Approved, as revised. (Ink)

The Commission requested that paragraph 8 b(1) and paragraph 4 a of the letter to the Secretary of the Navy include an appropriate reference to the applicability of previous analyses to proposed operations. (Ink)

The Commission requested the letter to the Secretary of the Navy be revised for the Commissioners' review at an early Information Meeting and:

a. Contain an appropriate reference to today's Meeting with officials of the Office of Chief of Naval Operations;

b. Delete the reference to an early meeting with the Secretary of the Navy; and

c. State that present procedures will apply in the interim until the new criteria have been developed and approved. (Ink-Price)

The Commission also requested that the proposed safety review procedures provide for a list of additional ports for frequent visits as approved by the Navy. (Ink-Price)

2. U.K. Requirements for Port Entry of Nuclear Navy Vessels

The Chairman noted Commissioner Palfrey has this matter under review. (Ink)

3. Proposed Letter to the Department of State re U.K. Sale of Material

The Chairman requested early review. (Ink-Wells)

Item of Information

U.S.S. ENTERPRISE Cruise - January 17-21, 1963.

Wednesday, December 5, 1962 - Germantown

At 10 a.m. I recorded a TV show for "Youth Wants to Know" at the WETA (educational television) studio in Arlington, Virginia. I was interviewed for this program by seven boys and one girl. The moderator was Sam Donaldson and the program will be broadcast on Station WTOP-TV and various other stations throughout the country on Sunday, December 12, 1962.

The Commissioners hosted a luncheon in the Executive Dining Room for Dr. George Darling (Director, Atomic Bomb Casualty Commission) and Dr. Keith Cannon (Executive Officer, NAS).

At 2:30 p.m. I presided over Commission Meeting 1898 (action summary attached). The Commission approved: 1. the transmittal of certain atomic information to Belgium, 2. a community plan for the Nevada Test Site, 3. production plans for Cm^{244} and Pu^{238} for long-range SNAP requirements, 4. 500 kg of plutonium to be furnished to French Rapsodie experiment, 5. the reduction of the price of heavy water from $28 to $24.50 per pound, and 6. the proposal to go back to USSR on the U.S.-USSR Exchange Agreement. We began the discussion of the November 1962 planning estimates and stockpile composition, which requires further coordination with DOD to effectuate the plan decided on last spring, whereby the costs of weapons will be reflected in the DOD budget even though AEC continues to do the actual funding.

I sent two letters (copies attached) to Bell commenting on his draft letter to the President on Project ROVER.

I sent a letter to the President giving a progress report on action taken to date in conformance with his instructions contained in NSAM 116.

I wrote a note to my mother enclosing photos of the Fermi Award ceremony and telling her about the "Youth Wants to Know" program.

Thursday, December 6, 1962 - Germantown

Secretary Korth called at 9:30 a.m. and said that the Navy has now received and reviewed the proposal of Southern California Edison regarding the Camp Pendleton site. They are in agreement with the proposal. He said there is the feature of the easement portion which both Southern California Edison and the Navy believe should have special legislation, and he is writing them and telling them that the Navy accepts their proposal, subject, as they have likewise indicated, to legislation. Korth is going to call and advise Holifield. I told Korth that this is good news and I thanked him for his cooperation.

Dave Beckler called and said that, in connection with the proposal to set up a Task Force to make a study of the proposal by Oak Ridge to use a very large reactor for making fresh water, Wiesner wants to move ahead with the formation of the group. Wiesner's general notion is to have the Task Force under the auspices of his office, and he wondered if I would have any objections if he (Wiesner) asked Dr. Revelle to chair the group. I said as far as I am concerned it is all right for Revelle to act as Chairman and it is also all right with me to have the Task Force set up under the auspices of Wiesner's office. I said the AEC representatives will be Sppfford English and a Commissioner--either Haworth or Wilson.

At 10 a.m. I presided over Information 220 (notes attached). We discussed Bundy's memorandum to the BOB concerning the PLOWSHARE program (copy attached) which, although generally favorable, implies a slowdown would be acceptable.

OPTIONAL FORM NO. 10
5010-104

UNITED STATES GOVERNMENT

Memorandum

UNCL. BY DOE
NOV 86

TO : Robert E. Hollingsworth, Acting General Manager

DATE: December 6, 1962
Approved [illegible]
R.E. Hollingsworth
Date 12/7/62

FROM : W. B. McCool, Secretary Original signed W. B. McCool

SUBJECT: ACTION SUMMARY OF MEETING 1898, WEDNESDAY, DECEMBER 5, 1962 2:35 P.M., ROOM A-410, GERMANTOWN, MARYLAND

SECY:MK

Commission Business

1. Executive Session

a. Letter to JCAE re Organic Reactor Program

The Commission requested the letter be revised. (Pitt)

b. Letter to BOB re Rover Program

The Commission requested the letter be revised. (Pitt)

2. Minutes of Meetings 1870, 1871, 1872, 1875, 1884 and 1885

Approved, as revised, subject to Commissioner Haworth's comments.

3. AEC 1123 and AEC 1123/2 - Community Plan for the Nevada Test Site

Approved. (Bloch)

4. AEC 1064/6 - Proposed Transmittal of Certain Atomic Information to Belgium

Approved.

Commissioner Palfrey requested a report on development of the DOD determination including reference to coordination with AEC (Betts)

5. AEC 751/331 - Plutonium for French Government Rapsodie Experiment

Approved.

Commissioner Ramey noted that a separate staff paper will be presented to the Commission regarding the terms and conditions under which the plutonium would be supplied to Euratom. (Pitt)

6. AEC 853/10 - Production of Plutonium 238 (See AEC 853/11 - Forecast of Large Scale Radioisotope Requirements and Production Planning)

Approved, as revised.

The Chairman requested an additional statement in paragraph 20d of AEC 853/10 regarding initiation of studies on radioisotope production in power reactors including Yankee. (Baranowski)

The Commission requested that paragraph 20b of AEC 853/10 be revised to reflect continuation of nominal studies of cascade/high flux or the cascade/resonance reactor schemes. (Baranowski)

You said you would submit at an early date a staff paper on the matter of plutonium received under the US-UK Agreement.

7. AEC 720/146 - Revision of Price for Sale of Heavy Water

Approved, as revised.

The Commission requested a statement be added in the Press Release to reflect that if heavy water production is increased the Commission will consider further price reductions. (Baranowski)

The Commission agreed that the contract with Canada should include a provision that Canada would pay the existing price for heavy water at time of delivery. (Wells)

The Commission noted that in accordance with AEC's past practice the new price is based on the principle of full cost recovery. (Abbadessa)

8. AEC 1037/17 - U.S.-U.S.S.R. Exchange Agreement

Approved.

The Chairman requested that the letters to the JCAE, Mr. Petrosiants and Professor Emelyanov be prepared for his signature today, December 6, 1962. (Wells)

9. AEC 580/168 - November 1962 Planning Estimates
AEC 580/169 - Weapons Development Status Report and
AEC 580/170 - Stockpile Composition

Discussed.

The Commission requested the staff papers be reviewed in the light of earlier DOD-AEC-BOB correspondence re weapons funding. (Betts)

The Chairman requested these staff papers, as revised, be rescheduled for Commission consideration during the week of December 17, 1962. (Secretary)

Procedures for distribution of sensitive information - I will confirm by memorandum, procedures discussed at the Meeting. (Secretary)

10. Organic Reactors Program

Discussed.

The Commissioners accepted the proposed response to Press inquiries re cessation of ECOR's loop construction. (Pittman)

The Chairman also requested further staff consideration be given to Commissioner Ramey's question relating to the heavy water moderated organic cooled reactor program. (Pittman)

DISTRIBUTION
Commissioners
General Manager
Secretary

326 US ATOMIC ENERGY COMMISSION
SECRETARIAT
1420
Rocket Propulsion

December 5, 1962

Dear Dave:

There is attached a letter to you prepared by the AEC staff commenting on your draft letter to the President on Project Rover. I would like to add for your personal consideration a few salient points which I believe may not be emphasized adequately in the attachment.

First, if the present KIWI-B4 series of tests are successful, as we anticipate, then the proposed cutback in budget would have us marking time on the NERVA portion of the program. The follow-on RIFT program would also be affected.

A second important fact is that the Commission does not wish to see the United States put in the same position on nuclear rockets, an area in which we presently enjoy a technological advantage and hard earned lead-time, as we have in the past found ourselves in large chemical boosters.

The Commission does not believe it to be important in these budget considerations that the Rover project does not have a specific mission at this time. If we have space missions beyond the first manned shot to the moon, then we have missions for the nuclear rocket which is expected to double the payload capability of the Saturn C-5.

We also feel that the President should be aware that a major cutback in the Rover program would be considered, at least by Congressional groups, as being possibly inconsistent with his decision in 1961 to accelerate the nuclear rocket program. Indeed, it is our view that the basis for accelerating the Rover program is at least as firm now as in 1961 and that, moreover, the additional technical knowledge that we have developed in the past year provides additional justification.

Classification Cancelled
~~Or Changed To~~
By Authority Of DOE
By Hartsook Date 7/23/73
Confirmed 1/28/88
R Anders

Let me conclude by saying that the Commission feels that the points which you raise in your letter to the President are certainly worthy of his attention and consideration if appropriately modified. We simply hope the considerations underscored above, as well as those in the attachment, can also be brought to his attention prior to any decision on the recommended reductions.

Sincerely,

(Signed) Glenn T. Seaborg

DOE ARCHIVES

Glenn T. Seaborg

The Honorable David E. Bell
Director
Bureau of the Budget

Attachment

ARF/HCB/hg

RD 29 Rocket Prop

326 US ATOMIC ENERGY COMMISSION
SECRETARIAT
1420
Rocket Propulsion

DEC 5 1962

12

Dear Mr. Bell:

I appreciate the opportunity to present these comments on your draft memorandum of November 30 for the President regarding the ROVER project. This matter was, of course, also discussed with you and Mr. Staats yesterday.

Two basic issues are raised in your memorandum. The first of those is a technical comment that unexplained technical difficulties have occurred in the ROVER program and that proof that the technical problems have been overcome will not be possible before August of 1963.

The second issue raised is a policy consideration in which you recommend that in the absence of an urgent and definite mission assignment large scale effort should not be expended until the reactor technology has been demonstrated.

It is important to emphasize that the proposed budgetary action presupposes failure in tests yet to be conducted. If they are successful, we would be in a position of marking time on important NERVA and RIFT activities. Major accomplishments have been achieved in this program to date and we have every expectation of successfully meeting program goals.

With regard to the technical difficulties comment, the unexplained failures obtained to date were obtained in a reactor different from the one now undergoing tests and the one that is favored for application in the NERVA engine. The KIWI-B4 reactor uses no unfueled graphite structure of the type that caused the unexplained failures in the KIWI-A and KIWI-B1 reactors. The first test of this favored KIWI-B4 design indicated the need for design changes in a thermal insulation component of the reactor which we do not believe will reflect on the feasibility of developing that reactor for flight application to meet the required performance conditions. By the end of FY 1963 there should be three additional KIWI-B4 reactor type tests which should clearly demonstrate the suitability of that reactor for NERVA. The August 1963 tests apparently referred to in your letter are tests on an alternate design version called KIWI-B6 or are tests on the NERVA reactors which are based on the KIWI-B4 design; there is no reason to believe that the determination of the basic suitability of the KIWI-B4 reactor must await these tests.

Classification Cancelled
~~Or Changed To~~
By Authority Of DOC
By [illegible] Date 7/23/73
Confirmed 1/28/88
R Anders

With regard to the second issue, it is important to emphasize that mission analyses, of which we are aware through the joint AEC-NASA Office, have indicated that the NERVA engine and the operational version of the RIFT stage would be required for missions beyond the first lunar landing. These missions include detailed exploration of the moon and planetary exploration. It is fortunate that, in the space program, systems such as the F-1 engine and the Saturn vehicle were under development even before firm and urgent missions were specified for them. These systems can now play their crucial role in meeting the requirements of the first manned lunar landings. NERVA and RIFT can be expected to take on a similar role with regard to more advanced objectives of the 1970's and 1980's. Work on NERVA and RIFT is required to provide the technology of this advanced rocket propulsion field and to demonstrate that this technology is sufficiently well in hand that it may be used in planning for vehicles beyond the advanced Saturn C-5 vehicle. Specifically, the speed with which the nuclear rocket work is performed could have major impact on the configuration of any NOVA vehicle to be developed following Saturn. I understand that NASA's NOVA studies consider the application of nuclear rocket stages, but must rely on the availability of technical information from the KIWI, NERVA and RIFT analyses and experiments for meaningful conclusions.

DOE ARCHIVES

With further reference to the second issue, the joint AEC-NASA program has refrained from undertaking major and heavy non-nuclear hardware development until successful reactor demonstration is achieved. It is assumed in our budget request that such successful demonstration will have been achieved by the end of FY 1963. The fact that three additional KIWI-B4 reactors will be run before the end of 1963 should permit time for such satisfactory demonstration. Should the KIWI-B4 reactor not prove feasible for some presently unknown reason, then we would certainly not propose to expend NERVA funds in the amount requested. I should also point out that in such an event we would also not be in a position to intelligently undertake work on advanced reactors such as the Phoebus work. Obviously, under such circumstances the funds would be devoted to KIWI activities. Work on higher power engines must rely on information gained from KIWI, NERVA, and RIFT. In such a case, we would have to rely on the KIWI-B6 or other more advanced reactor designs and NERVA, RIFT, and Phoebus work would have to be kept at reasonable, but reduced research levels. It is important to recognize that indefinitely conducting preliminary work in an advanced development program without attempting to achieve firm hardware objectives even when suitable technical background has been established is a costly and inefficient process leading to no conclusive results.

With regard to your comment on the community, it should be pointed out that the need for a community does not result from the level of effort being requested by NASA and AEC. Only complete curtailment of NERVA and RIFT effort would preclude the need for a suitable residential community near the Nuclear Rocket Development Station. Without such a community, conduct of the ROVER program would be costly and inefficient, if not impossible, as a result of the difficulty of recruiting and retaining skilled and competent personnel.

Several additional specific comments on your draft letter are the following:

Page 2 - Paragraph 1: In addition to these flight test objectives, NERVA and RIFT would be used for the first actual mission applications as now conceived.

Page 3 - Paragraph 1 states: "Radiation hazards will add additional problems, particularly if the nuclear rocket is used as a first stage within the atmosphere."

DOE ARCHIVES

There is not now any proposal for first stage nuclear operation within the atmosphere. We are confident that the nuclear rocket can be operated safely as an upper stage, which is the mode for the applications in the foreseeable future; we have under way an analytical and experimental program to demonstrate that such is the case. With operating experience, it may well prove ultimately that ground launch is also safe.

Recommendation 1, Page 4 states: "The 1964 funding for KIWI reactor development would permit continuation of these efforts at an expedited rate."

KIWI reactor testing is reduced by the BOB recommendation.

Recommendation 2, Page 5 states: "The 1964 funding for the NERVA engine development would be continued at levels attained at end 1963; this should provide for orderly development at the rate permitted by the advances in reactor technology which can be expected to result from the KIWI efforts."

The rate of spending would not permit an orderly program. Rather it results in a status quo effort which would not be logical if KIWI-B4 tests to be conducted by the end of FY 1963 prove successful. The curtailed effort recommended by the BOB would be reasonable only if the KIWI-B4 testing failed to

demonstrate successful reactor operation. This action also does not recognize the importance of bringing the engineering capabilities of industry into the reactor engineering effort in order to achieve successfully the program goals.

While your draft memorandum mentions the President's reference to this program in his May 25, 1961, speech, I don't believe this commitment, as well as others by administration officials subsequently, is sufficiently emphasized. We have all too frequently seen cases of programs proceeding unsatisfactorily by fits and starts because of changing attitudes not dictated by new technical information. Such a situation does not lead to an orderly, economical pursuit of objectives.

Sincerely yours,

DOE ARCHIVES

Chairman

The Honorable David E. Bell
Director
Bureau of the Budget

Subj:RD:S
Chairman(2)
GM(2)
AGMRD
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Pittman rdg
SMP rdg
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RD:OA _____
Date _____

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

UNCL. BY DOE
NOV 86

COPY NO. _____

December 6, 1962

INFORMATION MEETING 220

10:10 a.m., Thursday, December 6, 1962 - Chairman's Office, A-457

1. Chairman's Attendance at January 10, 1963 Ceremony for AEC-Texas Regulatory Agreement.

The Chairman commented on the invitation and said he would like to attend if possible. (Henderson-Secy)

2. PSAC Ad Hoc Panel Report on ROVER Program.

The Chairman suggested review by the Commissioners and General Manager. The Chairman also commented on Dr. Ed Welsh's memorandum re the ROVER Program. (Henderson)

3. Mr. Bundy's December 3 Memorandum to Bureau of the Budget Director Bell re PLOWSHARE Program.

The Commissioners discussed briefly the relationship of the memorandum to the Commission's budget appeal and the projected five-year program. Mr. Hollingsworth said the memorandum will be reviewed by staff. (Kelly)

4. December 4 Memorandum from Admiral Mustin re Instructions for JTF-8.

The Chairman noted receipt of Admiral Mustin's memorandum to the Joint Chiefs of Staff and the AEC requesting instructions as to the operation of the Joint Task Force. The Commissioners discussed the query, noted its relationship to AEC's position on test plans, and agreed the matter requires early discussion.

5. AIF President's Letter re Meeting with the Chairman and Commissioners.

Noted.

6. Chairman's December 4 Meeting with Messrs. Bell and Staats to Discuss FY 1964 Budget Estimates.

The Chairman said that in his meeting with BoB officials he had emphasized: a) inadequacy of the budget in the area of civilian nuclear power, particularly with respect to prototype planning; b) our arguments in support of the ROVER and SNAP Programs appeals; and c) the justification for research support of the universities, for example, the need for the high energy physics laboratory at Chicago University.

DETERMINED TO BE UNCLASSIFIED
AUTHORITY, DOE, OPC
BY L. M. Baltuski DATE 5/14/84

7. ACRS December 13-15 Meeting at Oak Ridge.

The Chairman noted that the Commissioners are invited if they wish to attend.

8. N.S. SAVANNAH.

The Chairman noted the SAVANNAH is strike bound in Los Angeles but scheduled to depart December 17 for Honolulu. He added the Commissioners might wish to consider attendance at ceremonies scheduled for December 11. Mr. Hollingsworth added that Mr. Ichiro Ishikawa, Acting Deputy Chairman, Japan Atomic, who is planning to board the ship for the run from Los Angeles to Honolulu, may suggest that a Commissioner join him.

9. Press Release re Los Angeles Power and Light Site Condemnation.

10. Public Hearing from the N.S. SAVANNAH.

Mr. Hennessey discussed the possibility of holding the hearing while the SAVANNAH is in dock at Galveston and said he would recommend a time to the Commissioners.

11. Schedule of Commission Business for the Month of December.

Approved. (Secy)

PRESENT		DISTRIBUTION
Dr. Seaborg	Mr. Hollingsworth	Commissioners
Mr. Ramey	Mr. Hennessey	General Manager
Mr. Palfrey	Mr. Henderson	General Counsel
	Mr. McCool	Secretary

W. B. McCool
Secretary

GT FILE
Box 2
12/6/62
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029 039

THE WHITE HOUSE
WASHINGTON

December 3, 1962

UNCL. BY DOE
1988

MEMORANDUM FOR: The Director of the Bureau of the Budget

SUBJECT: Funding of Research in Excavation by Nuclear Means

In order to provide the basis for examining the question of the need for and the method of construction, location and costs of a sea-level interoceanic canal in the Isthmian region, Section 6b. of NSAM No. 152, dated April 30, 1962, provides in part that:

> "The Chairman, Atomic Energy Commission, will establish within the PLOWSHARE Program a research goal to determine within approximately the next five years the feasibility, costs and other factors involved in nuclear methods of excavation."

The approximate nature of the timing of the aforementioned research goal is hereby underscored. At the present time the primary concern is that this research goal be achieved on an orderly basis with due consideration given to the most economically feasible level of funding. It is to be understood, however, that there is to exist the capability of accelerating this effort should it be found to be necessary at some future time.

It is assumed, therefore, that the above stated considerations will be reflected in your recommendation to the President in connection with the 1964 and subsequent year's budgets.

McGeorge Bundy

cc: The Secretary of State
The Secretary of Defense
The Chairman, Atomic Energy Commission
The Director of Central Intelligence

541

At 11 a.m. the Commissioners met with S. R. Knapp (Chairman), D. Douglass (Project Director), and C. D. Blum (Counsel) of North East Utilities Company and William Webster (President), Roger Coe (Vice President) and D. Allen (Counsel) of Yankee Atomic Electric Company. We heard their plans for a cooperative 400-500 MW water reactor.

I had lunch in the cafeteria with George Kavanagh to discuss disarmament matters.

At 2:45 p.m. the Commission met with Harlan Forbes (Chairman of the Board) and James F. Fairman (Senior vice President) of Consolidated Edison. They want to build a 1000 MW reactor (two-thirds nuclear, pressurized water and one-half conventional superheat) right in New York City. This will present problems, e.g., with the ACRS on siting criteria.

The Commission is announcing the essential termination of its organic reactor program due to budget difficulties and a relatively low priority.

I called Herb Anderson at the University of Chicago and told him we are in the process of arguing with the BOB on the money for the physics building for the University. I said we are pushing on this and asked, if the BOB came up with the proposal of 50-50 funding, would they be in a position to come through. He said he doesn't know where he would get the money because the building plans have been approved and the funds available have been allocated. He said they might be able to raise some money but not one-half. He hopes we will be able to do something for them.

Friday, December 7, 1962 - Washington - Omaha - Los Alamos - Albuquerque

I accompanied President Kennedy on his tour of AEC and AF installations. We left Andrews Air Force Base at 8:30 a.m. in the presidential plane. Others on board were: Ros Gilpatric, Secretary Eugene Zuckert, General Curtis E. LeMay, Admiral George W. Anderson, General Earle G. Wheeler, General David M. Shoup, Jerry Wiesner, Harold Brown, Spurgeon Keeny, Don Hornig, Mac Bundy, Pierre Salinger, Mrs. Evelyn Lincoln, Major General Chester V. Clifton, Brigadier General Godfrey T. McHugh, Captain Tazewell Shepard, Kenneth O'Donnell and Dr. George Burkley (the President's physician). (List of press accompanying the President to Los Alamos and Albuquerque attached.)

We arrived at Offutt Air Force Base in Omaha about 10 a.m. where we visited SAC headquarters and heard briefings on operations, the latest intelligence on Russian missile and AICBM sites, etc.

Vice President Johnson and party (including Fritsch) followed us in another big 707 jet.

At 1 p.m. our group, minus most of the DOD people but including Fritsch and General Wheeler, flew to Santa Fe (arriving at 2:15 p.m.) where a huge crowd greeted the President. After being joined by Senator Anderson we flew to Los Alamos, with the President, Senator Anderson, O'Donnell, Shepard and me in the front compartment and Wiesner, Bundy, Salinger and Secret Service men in the rear compartment. We were met by a huge crowd at Los Alamos.

We then continued by helicopter to the Los Alamos Scientific Laboratory and landed at the Chemical and Metallurgical Research Building. Schreiber, Bradbury, Finger and I briefed the President on the ROVER program with the aid of models. During the briefing, Finger, Schreiber, Seamans, Senator Anderson, Bradbury and I, in an exchange with Wiesner, Hornig and Harold Brown, defended the AEC-NASA FY 1964 ROVER budget. (BOB wants to cut it approximately $150 million.) The President asked

List of Press Accompanying President to Los Alamos and Albuquerque

Bennett, Walter	Time Photos
Brown, Edwin	USIA
Burd, Laurence	Chicago Tribune
Burke, Bryce	UPI-Movietone
Cancellare, Frank	UPI-Photos
Cormier, Frank	Associated Press
Craven, Thomas Sr.	UPI-Movietone
Gavin, Thomas	Denver Post
Hackes, Peter	National Broadcasting Company
Herman, George	Columbia Broadcasting System
Hines, William	Washington Star
Hoertel, Bruce	CBS-TV
Hofen, John	NBC-TV
Kilpatrick, Carroll	Washington Post
Knudsen, Robert	Navy-Photos
Lawrence, William	American Broadcasting Company
Linkins, Carroll	Western Union
Mahan, James	Life-Photos
Metcalfe, John	New York Daily News
Munroe, Pat	Albuquerque Journal
Ottenad, Thomas	St. Louis Post Dispatch
Roberts, Charles	Newsweek
Ryan, Cleveland	Lighting Technician
Schultz, Jack	UPI-Movietone
Schutz, Robert	AP-Photos
Sehlstedt, Albert	Baltimore Sun
Stone, Marvin,	U.S. News & World Report
Stoughton, Cecil	WHCA-Photos
Suydam, Henry	Life-Photos
Weston, Ronald	Telenews
Wicker, Thomas	New York Times
Wiegman, David	NBC-TV
Wilson, George	Aviation Week
Rademaikers, William	Time
Smith, Merriman	United Press International
Cornell, Douglas	Associated Press

Vice-President Lyndon B. Johnson making a point with the President at Los Alamos Scientific Laboratory, December 7, 1962. Laboratory Director Norris Bradbury and Senator Clinton Anderson are in the foreground.

many questions about the program. He also met a couple of dozen key Los Alamos scientists.

The President and entourage, including New Mexico Congressmen Joseph Montoya and Thomas Morris, who had joined us when we landed at Los Alamos, then drove in a motorcade to the football stadium, where the President gave a marvelous impromptu speech. The motorcade then proceeded to the airstrip.

I flew with President Kennedy and Senator Anderson in the front compartment of the helicopter to Albuquerque (Kirkland Airport). There the President received another big reception. We proceeded by motorcade to Sandia Corporation. Kenner Hertford (Area Manager, ALOO) and Monk Schwartz (President, Sandia Corporation) briefed the President on nuclear weapons and command and control with sample of weapons, old and new, and much of the component parts.

After the briefing we went by auto to the Western Skies Hotel where Schwartz and I gave a cocktail party and dinner (guest list attached) for Senator Anderson, Congressmen Morris and Montoya, New Mexico Governor-Elect Jack Campbell, Wiesner, Bundy, Dr. Burkley, Keeny, Shepard, Clifton, Wheeler, Hornig, Brown, Major General H. C. Donnelly, General Ash, General White, Admiral Black, Haworth, Ramey, Finger, Fritsch, Ink, Hertford, R. W. Henderson, and others.

All of us, including the President, spent the night at the Western Skies Hotel.

Saturday, December 8, 1962 - Albuquerque - Nevada Test Site - Washington

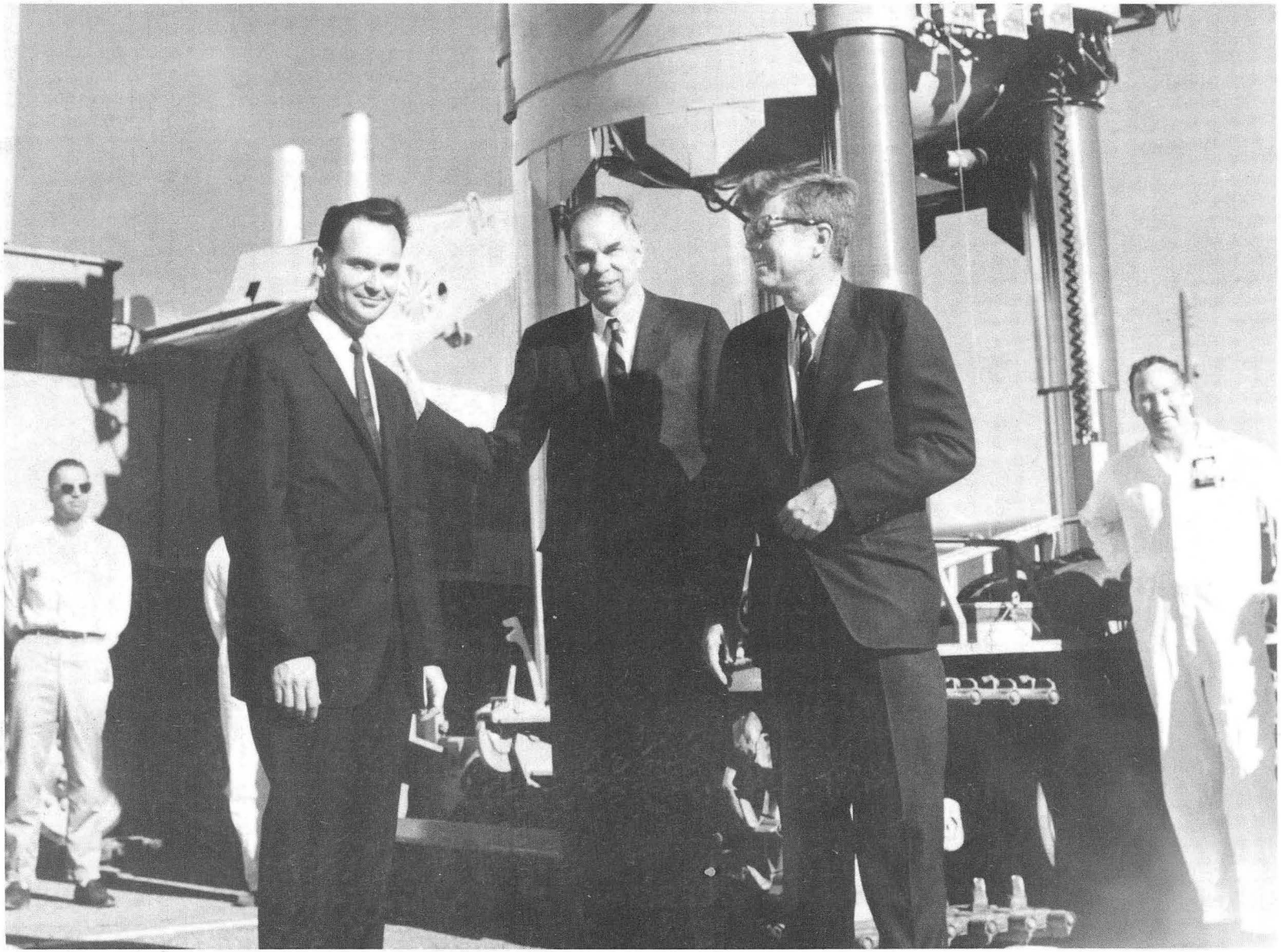
We flew in the presidential plane to Indian Springs Air Force Base. We left Albuquerque at 9 a.m. and arrived at 9:15 a.m. I flew in the front compartment of a helicopter with President Kennedy, Al Graves, Senators Howard Cannon and Alan Bible (who flew with us in the plane from Albuquerque) over the Nevada Test Site.

We flew over the spot that is planned for a community, the site of SMALL BOY (a July effects test), LASL and LRL underground test sites, the SEDAN crater (which the President requested that we circle), and LRL testing tunnels. We landed at the Nuclear Rocket Development Site (NRDS) where Finger and I escorted the President through the Maintenance and Disassembly Building (MAD). I then rode in an open car with the President for a tour of NRDS. We ended up at Engine Test Site (ETS) #1 where, with the help of Erickson (of Aerojet General), we showed the President the huge stand for testing the NERVA engine (22 ft. by 40 ft.). Reporters and photographers (some 40 or 50) met us at the MAD building and ETS and at points in between to take numerous pictures and movies of the President with Finger and me.

I had a chance to discuss many things with the President during the helicopter trip and the ride in the open car--the ROVER schedule, the civilian nuclear power program, PLOWSHARE excavation potential, basic research leading to the discovery of fission and plutonium, the need for a community near NRDS, the PLUTO project, SNAP-50 and the $25 million start he gave it, the 10,000 MW nuclear desalination project and many other items.

The President flew back to Indian Springs Air Force Base in one helicopter and then on to Palm Springs, while I flew back to Indian Springs in another helicopter along with Roger Batzel (who briefed me on the results of a recent underground shot to make heavy isotopes-partially successful) and others. I flew back to Andrews Air Force Base with Bundy, Fritsch, Seamans, Ink, Finger, Keeny, Hornig, Milt Klein, General Wheeler and many others. We left about noon and stopped for an hour at Nevis Field. We arrived at Andrews Airforce Base at about 8:20 p.m.

President Tour of Sandia, December 8, 1962. L to R: S. P. Schwartz (President of Sandia Corporation), Senator Clinton P. Anderson (New Mexico), McGeorge Bundy (Special Assistant to the President), Seaborg, and President John F. Kennedy



Presidential Tour of Nuclear Rocket Development Station at the Nevada Test Site, December 8, 1962. Harold Finger, Seaborg and President John F. Kennedy

Presidential Tour of the Nuclear Rocket Development Station at the Nevada Test Site, December 8, 1962.
L to R: Keith Boyer (Director of Nuclear Rocket Reactor Testing for LASL), Seaborg, Senator Howard Cannon (Nevada), President Kennedy, U. S. Senator Alan Bible (Nevada), Alvin C. Graves (Director of all LASL Test Programs), Harold Finger (Manager, Space Nuclear Propulsion Office), Duncan Curry, Elmer Snowder, Lawrence Rice, Charles Finstermacher, James Henshall and H. T. Knight (all LASL Nuclear Rocket Reactor Test participants).

Presidential Tour of the Nevada Test Site, December 8, 1962

President John F. Kennedy and Seaborg

GUEST LIST - INFORMAL DINNER
(Western Skies Hotel)
December 7, 1962

HOSTS: S. P. Schwartz - Glenn T. Seaborg

Lyndon B. Johnson, The Vice Pres.
Dr. Jerome B. Wiesner
McGeorge Bundy
P. Kenneth O'Donnell
Pierre Salinger
Miss Evelyn N. Lincoln - GTS
Andrew Hatcher
Dr. George G. Burkley - GTS
Dr. Spurgeon Keeny
Captain Tazewell T. Shepard, Jr.
General Godfrey T. McHugh
General Chester V. Clifton
General Earle G. Wheeler
James Joseph Rowley - GTS
Dr. Donald Frederick Hornig
Dr. Harold Brown
Major General H. C. Donnelly
Brig. General [illegible] L. Ash
Brig. General J. [illegible] White
Rear Adm. J. [illegible]. Black

Leland J. Haworth
James T. Ramey
Arnold R. Fritsch
Harry Finger
Dwight Ink
Kenner Hertford

* * * * * * * * * * *

Senator Clinton Anderson
Congressman Thomas Morris
[illegible]ck Campbell, Gov. Elect
Congressman Joseph Montoya
[illegible]. Henderson
[illegible] J. Jackel

, The Vice Pres.

Sunday, December 9, 1962

I read journals and worked on AEC papers.

I appeared on Channel 9 (CBS) in the program that I recorded on December 5th for "Youth Wants to Know." It was broadcast from 5 p.m. to 5:30 p.m.

At 8:30 p.m. to 9:30 p.m. Charles Townes (Provost, M.I.T.) came out to our house to offer me the position of Dean of Science at M.I.T. I declined the offer on the basis I intend to return to the University of California after I finish my present assignment.

Monday, December 10, 1962 - D.C.

At 9:40 a.m. I presided over Information Meeting 221 (notes attached). I reported on my trip with the President. I also noted the letter that was transmitted to Bell on December 7th (copy attached) which furnished a detailed time schedule for the initiation, development, and construction of the Spectral Shift prototype reactor. (This was in response to Mr. Bell's request made during our meeting on December 4th.)

At 11 a.m. the Commission met with W. H. McElwain (President) and J. E. Logan (Vice President) of Jersey Central Power and Light Company and with A. F. Tegen (President) and G. H. Ritter of General Public Utilities. We discussed their plans for a 450-600 MW boiling water reactor at Oyster Creek, New Jersey.

The Commissioners had lunch with Ishikawa (Acting Chairman, Japanese AEC), Ambassador Asakai and several AEC staff at the Lawyers Club.

George Beadle called at noon to inquire whether there is anything that they can do in connection with the budget item for the high energy physics laboratory for the University of Chicago. I said that this has the highest priority here and it is the No. 1 item that we are appealing to BOB for restoration to our budget. I mentioned that BOB wants to handle this in the same manner as handled by NSF, namely, on a 50-50 basis. Beadle said that this would require real sacrifice on their part; but, if this is the only way to get the laboratory, they will do their best to match the government funds. I said it is reassuring to hear this because I hadn't realized that they would even consider this approach. I asked him to tell Herb Anderson that this item will not slip out of the budget; but, if it should, it would only be because it was completely out of our control.

From 3:15 p.m. to 5:15 p.m. the Commission met with the Nuclear Fuel Services Technical Review Committee (S. Lawroski, J. E. Cole, F. Culler, A. L. Ayer and R. J. Christl) to hear their appraisal of Nuclear Fuel Services' plan for a chemical reprocessing plant in New York. The Committee's report was adverse because their feeling is that the Nuclear Fuel Services' plans are inadequate.

Wiesner called at 4:20 p.m. about the budget item for the high energy physics building at the University of Chicago. Jerry says that, in order for the BOB to be able to keep this item in, the AEC has to base its argument specifically on the need of AEC for this program. He thinks that, as an item of general aid to higher education, it will be resisted.

Tuesday, December 11, 1962 - D.C.

I met with Carson Mark of Los Alamos to hear about their plan for an underground shot scheduled for February 22nd at the Nevada Test Site, which has been designed to produce heavy isotopes, possibly up to element 104.

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

DECL. BY DOE
NOV 86

COPY NO. 15

December 10, 1962

INFORMATION MEETING 221

9:40 a.m., Monday, December 10, 1962 - Chairman's Office, D. C.

*1. President's Visit to Los Alamos, Sandia and NTS.

The Chairman reported on his trip with the President, noting that Commissioners Haworth and Ramey were also in the party. The Chairman said he considered the trip very successful and said among the matters he had an opportunity to discuss with the President were:

a. The Rover Program.
b. Weapons developments at Sandia.
c. Results of the Seden Event and status of the Commission's Plowshare Program.
d. The Commission's review of test planning and disposition of Joint Task Force Eight.

Other items discussed with other members of the party during the Presidential visit were:

a. NTS Community - The Chairman commented on Senator Cannon's remark to him that Mr. Orville Bell had proposed to build the community at Bell's expense at another site and that he had pointed out the difficulties of the AEC-NASA position at being dependent upon such a proposal. The Chairman requested staff review of the Bell proposal. (Bloch)

b. Pluto Program - The Chairman discussed DoD's recent letter and Dr. Harold Brown said the DoD position is essentially that we should continue Tory II-C, do nothing at present on Tory III, and continue with the general research program at the rate of around $3 million annually. (Pittman)

c. Engineering Assistance on the Rover Program at Los Alamos - The Chairman and Dr. Haworth commented on their discussions with Norris Bradbury in which he indicated that this is a real problem and that the laboratory must have help. (Pittman)

*1. [illegible]

2. Consolidated Edison Proposal.

The Chairman requested the Joint Committee be informed. (Pittman)

3. Memorandum re Joint Task Force Eight for Chairman's Use in Discussions with the Department of Defense.

The Chairman requested preparation of a discussion memorandum. (Betts)

Dr. Haworth said he would discuss with Dr. Gerald Johnson letters to the Nevada staff re effects tests at the NTS.

4. Pendleton Site for Southern California Edison Reactor Project.

The Chairman said Secretary Korth had telephoned to say that the Navy will proceed with proposed legislation and that Mr. Holifield has been informed.

5. Chairman's Discussion with Bureau of the Budget Director Bell re FY 1964 Funding for Spectral Shift Prototype.

The Chairman noted he had made a special plea in his December 4 meeting with Mr. Bell for the funding of the Commission's request for the spectral shift prototype. In response to Mr. Bell's request, additional information re timing, etc. on the project was forwarded by letter of December 7. Dr. Haworth added that Fred Schuldt of the Bureau had telephoned him and obtained additional information on the project.

6. Visit of Mr. Kuznetsob and Russian Delegation to Brookhaven on Wednesday, December 12.

The Chairman noted that he would be in New York on Thursday, and Brookhaven on Friday, and suggested the possibility of a meeting with Mr. Kuznetsob at the UN on Thursday afternoon, December 13, or Brookhaven on Friday, December 14. (Wells)

7. Dr. Larson's November 20 Letter re Materials Research.

Mr. Hollingsworth reported the matter is in review in the Division of Production and the Chairman requested preparation of a letter to NASA for his signature. (Baranowski)

8. Meeting of the Computer Advisory Council, Friday, December 14.

The Chairman said he had planned to attend but since he will be in New York, suggested Dr. Haworth attend.

9. Civilian Nuclear Power Report.

The Chairman suggested additions to the appendix, clarifying the U.S. position regarding the programs of other countries in organic, heavy water and other type reactors, and the Commissioners suggested additionally that letters be prepared for transmittal to West Germany, EURATOM, Italy and Canada. (Wells)

10. Notification to Joint Committee re Organic Reactor Program.

The Chairman noted Mr. Conway's call Friday, December 7, regarding the timing of notification to the Joint Committee on the Commission's planning in the organic reactor program. Mr. Hollingsworth discussed briefly the information which he had requested be given to Captain Bauser of the Joint Committee staff, and said he would discuss the matter further with Dr. Pittman today and ascertain what further information should be discussed with Mr. Conway. Mr. Ramey suggested that when Commissioners are out of the city and matters of particular interest to them are under Commission consideration, that some arrangement be made for them to be informed. Additionally, Mr. Palfrey suggested the Commissioners discuss the whole question of procedures for communications with the Joint Committee. (GM)

11. AEC-Department of State Liaison.

In response to the Commissioners' request, Mr. Hollingsworth reported this matter is in review by Mr. Wells and will be before the Commission shortly. (Wells)

12. Dr. Wilson's Attendance at the U.S.-Japan Atomic Industrial Forum Conference, New York City.

Dr. Wilson reported briefly on his attendance at the meetings and said there had been frank discussion on both sides.

13. Status of Patent Compensation Cases.

The Chairman commented on the desirability of moving these cases, and Mr. Palfrey said he would discuss the matter with the General Counsel. (GC)

14. Letter to Department of State re Entry of U.S. Nuclear Vessels in UK Ports.

Mr. Palfrey noted he will review his draft with Mr. Wells today.

15. Schedule for the N.S. SAVANNAH.

Mr. Hollingsworth noted the Savannah is still strike bound and that the schedule may be affected.

16. Construction Contractor for Lithium Cooled Reactor Experiment at Idaho (NRDC).

Mr. Hollingsworth reported his intention to proceed on the basis of the Board's recommendation and the Chairman requested delay pending review of the possibility of placing the program at the CANEL facility. (Vinciguerra-Pittman)

17. Press Accounts of Loss of Uranium.

Noted.

18. Press Release on UK-US Test at NTS.

Mr. Palfrey noted this matter had been discussed with White House staff on Friday, December 7.

19. Assignment of Replicas of AEC Seals to AEC Overseas Offices.

Approved. (Secy)

20. Commissioners' Visit to USS ENTERPRISE, December 18, 1962.

The Commissioners said they will plan to visit the Enterprise on December 18 if possible. (Secy)

21. Distribution of Commission Action Meeting Summaries to Commissioners.

The Commissioners agreed this is desirable. (Secy)

PRESENT		DISTRIBUTION
Dr. Seaborg	Mr. Hollingsworth	Commissioners
Dr. Wilson	Mr. Hennessey	General Manager
Dr. Haworth	Mr. Henderson	General Counsel
Mr. Ramey	Mr. McCool	Secretary
Mr. Palfrey		

W. B. McCool
Secretary

At 10:30 a.m. I met with Henry T. Heald (President, Ford Foundation) who wanted to explore with me my interest in accepting a high administrative position with the Ford Foundation, presumably a vice presidency, in charge of their educational program. The position would be a replacement for Clarence Faust, who will retire from this position to take on another position in the organization. I was noncommittal and told him that my plans for the future are somewhat indefinite but that I will keep their offer in mind.

Fred Schuldt (BOB) called at 10:10 a.m. to advise me of a small meeting they had this morning on the ROVER program to which they invited Harry Finger from the technical level. He said he gathered that no final decision has been made; but he also gathers that, as an aftermath of the trip to the Southwest, things may well move in the direction of the position which was taken by Bell and Wiesner. I said I would hope that there would be some compromise to allow us to go ahead. I know there is a tendency to go along with the implication that we might go for a supplemental if the KIWI tests are successful. I pointed out that the basic funds are a little low. Fred said that Harry Finger pointed this out. Fred said that there would be further discussions at the BOB on the budget numbers today or tomorrow. I advised him that I will be out of town on Thursday and Friday, but will be available on Saturday. He thinks the meeting will be called before Saturday, but he will be in touch with us as soon as he knows the time. I mentioned the publicity that we are getting from cutting out the organic reactor. I said that the Joint Committee is upset about this, so I think to go along with our power report we should do something positive as well as negative.

At 11 a.m. the Commissioners met with R. C. Runion (President), R. G. Beckhoefer, W. A. Rodger, S. T. Reese, E. Johnson, C. W. Tayler and W. H. Lewis of Nuclear Fuel Services; W. McGuirk (President) and R. G. Goodall (Vice President) of Davison Chemical Company; W. K. Davis (Vice President, Bechtel Corporation); and R. Bowers of Commonwealth Edison. We heard their case for the soundness of the Nuclear Fuel Services project, a privately operated plant for chemically reprocessing nuclear reactor fuel; they disagree with yesterday's Technical Review Committee report. I admonished them to be sure that their proposed private fuel reprocessing plant will be financially sound.

I had lunch at the Cosmos Club with Francis Keppel, the new Commissioner of Education, Jim Webb and Alan Waterman to discuss ways of coordinating our agencies' aid to education.

Harry Smyth called to tell me he received a telephone call from Bill Cargo in Vienna about the question which Eklund discussed with me, i.e., the Deputy Director General position at the IAEA. He said that Bill reported the uncertainty about this was causing some trouble and he hoped we could give Eklund a decision before he leaves for Bangkok this Saturday. Harry said that Bill reiterated his position of favoring the present setup rather than relinquishing that spot to a lesser country. Harry said that he has been thinking about this, and he is prepared to go along with Bill. He asked what my thinking is. I said that after I talked with him, I told Eklund we would reconsider and let him know within a month. I said, if we went the other way we would have to sell the idea to State, and I am inclined to keep the job set up as it now is. We agreed that I will call Cleveland and discuss the matter with him and then send Cargo a cable.

The Commission met in executive session to discuss the single administrator plan which would consist of an administrator, a deputy administrator and three associate administrators with programmatic responsibilities. All would be presidential appointees. Ramey is resisting the change.

At 4:45 p.m. I met with Robert Ginna (Chairman) and Francis E. Drake of Rochester

Gas and Electric Company. Ginna gave me a description of his trip around the world, going to and from the Australian World Power Conference, during which he talked with people in many countries about their nuclear power program. He was unimpressed by the planning for the Tarapur reactor. He learned that Australia could use nuclear power because their fuel costs run as high as 50¢ to 60¢ per million Btu. They cannot utilize sizes greater than 100 to 150 Mw. He found a surprisingly vehement reaction against U.S. enriched uranium reactors by Ernst Bergmann in Israel. He was unimpressed by the planning in Zurich, but thought that the planning in Denmark was good. He then went on to talk about the second generation gas-cooled Peach Bottom type of reactor in which his company is interested. They would like to go up to a couple of hundred megawatts, but he has been able to raise only about one-half of the $6 million required for the research and development among utilities. He asked whether the AEC would be interested in furnishing the other $3 million. I told him we would consider it and asked him to write us a letter.

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

Wednesday, December 12, 1962 - D.C.

I called Harlan Cleveland at 9 a.m. to discuss the replacement for John Hall as the Deputy Director General of the IAEA, and the position the U.S. should strive for, i.e., whether we should try to keep this an administrative job or, as Eklund prefers, take one of the deputy jobs in the technical area. I said I understand that the State Department would rather that we keep the administrative post. He said there is variance of opinion on this, but he rather goes along with Smyth's opinion that we should take the technical post. However, Cleveland has not talked with Smyth since the latter talked with Bill Cargo, who more or less persuaded him to go the other way. Cleveland will talk with Smyth about this and call me.

I called Secretary Udall at 9:20 a.m. and brought to his attention the article in the December 1962 issue of Nucleonics by Philip Hammond on large reactors for desalination of sea water. He said he has not read it but Roger Revelle has and that he knows the content of it. I told him it was not our idea that this should be published so early. Udall is enthusiastic about the project and mentioned that Wiesner feels we should explore the economics of the whole thing rather thoroughly. I told Udall that I am asking one of our Commissioners (probably Dr. Wilson) to serve on the committee, which Roger Revelle will chair, to look into this project.

At 9:40 a.m. I presided over Information Meeting 222 (notes attached).

At 11:45 a.m. I presided over Commission Meeting 1899. The Commissioners met in Executive Session on a personnel matter. The Commission suggested that the Princeton Project be closely reviewed by 1965 and that discussion of the Sherwood Program with the Commissioners be placed on the agenda for the next GAC meeting in January. The Commissioners approved the following: 1. a request by the Federal Republic of Germany to lease special nuclear material for use in a fast reactor core, 2. proposed extension of contract with Westinghouse Electric Corporation, and 3. proposed extension of contract with Management Services, Inc., of Tennessee. The Commission requested the staff to review the legality of reimbursing cost-type contractor employees for services for another Commission cost-type contractor. A report will follow their further consideration of the matter this afternoon.

At 2 p.m. I met with R. Sagane (Managing Director and a pre-war Berkeley friend), Dr. Tamaki Ipponmatsu (President), Mr. Shimoyama (legal staff), Mr. Yoshicka (Director and Manager of Engineering), Mr. R. Imai (Deputy Chairman, Research and

901513

December 11, 1962

OFFICE DIARY
GLENN T. SEABORG
Chr USAEC, 1961-72
FOLDER-PAGE 24057

UNCL. BY DOE
NOV 86

Dear Mr. President:

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

1. Organic Reactor Program (Unclassified)

The Commission, following a reassessment of its Organic Reactor Program, a natural outcome of the recently completed Nuclear Power Study, decided to reduce substantially further development of organic cooled and moderated power systems. In applying criteria specified in the recent Civilian Nuclear Power report to you, it was ascertained that the organic reactor concept does not hold sufficient promise for making a significant improvement in nuclear power plant performance in the United States above that already achieved by other reactor concepts to warrant, at this time, continued Commission support of development of this reactor concept.

Accordingly, the Commission is curtailing a number of activities related to the development of the organic reactor concept, including the deferral of operation of the Experimental Organic Cooled Reactor (EOCR) at the AEC site in Idaho and the deletion of a prototype organic nuclear power plant authorized by the Congress.

Continued assessment of the organic reactor system will be provided, on a limited scale, through results of operation of the Organic Moderated Reactor Experiment (OMRE) at the AEC site in Idaho to the end of this fiscal year, operation as planned of the cooperative demonstration nuclear power plant on the utility system of the City of Piqua, Ohio, and information from various other countries' organic programs.

CLASSIFICATION CANCELLED
WITH DELETIONS
BY AUTHORITY OF DOE/OC
REVIEWED BY 2/10/86 DATE
7/11/86

GLENN T. SEABORG
Chr USAEC, 1961-72
FOLDER-PAGE 24058

2. US-USSR Cooperation (Unclassified)

The Commission has reviewed exchange proposals submitted by the State Committee of the USSR Council of Ministers on the Utilization of Atomic Energy. These proposals, intended to further the current US-USSR Exchanges Agreement and to replace the US-USSR Memorandum on Cooperation in the Peaceful Uses of Atomic Energy, signed in 1959. Included in the proposals are reciprocal exchanges of visits, exchanges of research specialists, reports and documents, and instruments, and the holding of joint conferences.

Although many of the Soviet proposals were acceptable, several counterproposals were considered necessary. A revised Memorandum of Cooperation, coordinated with the Department of State, has been approved by the Commission and is being transmitted through usual diplomatic channels to Moscow for consideration by the State Committee. It is expected that this Memorandum may be signed in Washington in the near future.

3. Third Geneva Conference (Unclassified)

The General Assembly of the United Nations on November 19, approved the holding of a Third International Conference on the Peaceful Uses of Atomic Energy in Geneva, Switzerland, for ten days in the fall of 1964. The United Nations will act as sponsor fully utilizing the services of the International Atomic Energy Agency. The conference is to be smaller in size than those held in Geneva in 1955 and 1958, though of the same general nature.

The Atomic Energy Commission will be responsible for the scientific presentation of the United States. From my personal experience in the previous conferences, I anticipate that the United States will gain considerable prestige and direct benefits from this Third Conference.

4. UK Weapons Test [redacted]

As I mentioned to you on our recent trip, the UK weapons test at the Nevada Test Site was successfully executed on December 7. The event was TENDRAC, the nineteenth event of the STORAX

DELETED

DELETED

3. Southern California Edison Plant Site at Camp Pendleton (Unclassified)

The Secretary of the Navy, in a letter dated December 5, informed the Southern California Edison Company that the Navy is prepared to proceed with negotiations and the authorizing legislation for the location of the proposed large nuclear power plant at the northeast end of the Marine Corps base at Camp Pendleton, California. I am hopeful that this will finally resolve this long standing issue and permit a significant step forward in this country's efforts to establish the competitiveness of nuclear power.

4. Press Visit to Project GNOME Site (Unclassified)

On the first anniversary of Project GNOME, the first underground detonation of a peaceful nuclear explosive near Carlsbad, New Mexico, a tour was arranged to permit interested press to view the cavern which resulted from the shot. On December 10, such a visit was successfully made by a number of photographers and writers.

Your visits of December 7 and 8 to the Atomic Energy Commission installations in New Mexico and Nevada were extremely beneficial. I am sure they will have a considerable effect on the morale of those dedicated people who work in remote areas. I hope in turn that you were able to garner the insight and information you desired concerning the AEC efforts at these sites, particularly the NERVA program.

OFFICE DIARY
GLENN T. SEABORG
Chr USAEC, 1961-72
FOLDER-PAGE 24059

Respectfully submitted,

[signature]

Glenn T. Seaborg

The President
The White House

ae 7

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

COPY NO. 13

December 12, 1962

INFORMATION MEETING 222

UNCL. BY DOE NOV 86

9:40 a.m., Wednesday, December 12, 1962 - Chairman's Office, D. C.

1. December 6 Letter from Dr. Wiesner re Ad Hoc Committee on Nuclear Reactor for Desalinization Project.

The Chairman said Dr. Wilson and Mr. English will serve and that Messrs. Wiesner and Revelle will be informed. (English-Henderson)

2. Chairman's Discussion with Mr. Robert Ginna, Chairman, Rochester Gas and Light Company.

The Chairman said Mr. Ginna had discussed with him his recent tour and attendance at the World Power Conference in Australia. Mr. Ginna reported on his impressions of atomic energy programs in Israel, Switzerland, Denmark, England, and other countries, expressed his group's interest in a Second Generation Peach Bottom Plant, and discussed the possibility of Commission financial assistance. Mr. Ginna was requested to submit a letter proposal for Commission consideration. (Henderson-Pittman)

3. Chairman's Discussions with Assistant Secretary Harlan Cleveland re Staff Position in the IAEA.

4. December 12 Letter to BOB Director Bell re Christmas Island and JTF-8.

Noted.

5. Letter to BOB Director Bell re UK-US Military Barter Agreement.

Noted.

6. Mr. Walter Zinn's Speech at University of Chicago Celebration.

Noted.

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

In response to the Chairman's request, Mr. Hollingsworth noted this matter is scheduled for consideration next week and the Chairman suggested prior discussion with Dr. Haworth. (Traynor)

8. December 27 Meeting with Southwest Atomic Energy Association Representatives to Discuss Experimental Breeder Reactor Project.

Dr. Wilson said Mr. Reichle of Ebasco had called to suggest a meeting with the Commissioners and staff to discuss informally the Association's plans. Mr. Ramey suggested consideration of Los Alamos siting in the event the project moves. Dr. Wilson invited interested Commissioners and staff to attend the December 27 meeting with him. (Pittman)

9. Contract for Lithium Cooled Reactor Experiment.

The Chairman requested discussion of the General Manager's recommended no action pending the budget discussions now scheduled with the BOB. (GM)

10. Report to Joint Committee Staff on Organic Reactor Program.

Mr. Hollingsworth said Messrs. Giambusso and Donovan had met with the staff for a friendly discussion of the development of the Commission's decision. He added that the Joint Committee's staff plans to visit Germantown soon for a briefing on the reactor program. (Pittman)

11. Commission's Procedures for Communication with the Joint Committee.

Mr. Palfrey noted that in connection with the rapid development of budget decisions dictated by the BOB timing on consideration of the FY 1964 budget estimates, the Commission should be alert to necessary procedures to keep the Joint Committee informed. (Abbadessa)

12. Movement of the NS SAVANNAH.

Mr. Hollingsworth reported the Savannah was moved by tugs yesterday to Los Angeles with the reactor shut down. Ceremonies will proceed and the Chairman said he had suggested to Mayor Yorty, invitations to several dignitaries in the name of the AEC.

13. Commissioners' Luncheon Meeting, Thursday, December 13, Germantown with Union Carbide Officials.

Dr. Wilson said he would be pleased to meet with the officials and invited the Commissioners to attend as available. (Secy)

14. Nuclear Fuel Services Proposal.

Mr. Hollingsworth suggested and the Commissioners agreed that it is necessary to move quickly on this matter and the Commissioners had no objection to the staff discussing with NFS, the possibility of a) AEC assistance through an R & D program, b) simplification of fuel element loads, and c) an additional AEC commitment of 25 days. The staff will discuss this matter with the Commission in Germantown, Thursday, December 13 at 11:00 a.m. (Baranowski-Secy)

15. Department of State Request for the Addition of Key People for Access to CABAL Program Information.

In response to Mr. Ink's report on the Department of State's request, the Commissioners requested additional information on personnel and procedures involved. (Ink)

PRESENT

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

DISTRIBUTION

Commissioners
General Manager
General Counsel
Secretary

W. B. McCool
Secretary

OPTIONAL FORM NO. 10
5010-104

UNITED STATES GOVERNMENT

Memorandum

UNCL. BY DOE
NOV 86

TO : R. E. Hollingsworth, Acting General Manager

DATE: December 12, 1962

Approved 12/13/62
R. E. Hollingsworth

FROM : W. B. McCool, Secretary

Date 12/12

SUBJECT: ACTION SUMMARY OF MEETING 1899, WEDNESDAY, DECEMBER 12, 1962, 11:45 A.M., ROOM 1113-B, D. C. OFFICE

SECY:PAL

Commission Business

1. Executive Session

Personnel Matter :

2. Comments on 1962 GAC Report of Sherwood Program

The Commission suggested that the Princeton Project be closely reviewed by 1965 and that discussion of the Sherwood Program with the Commissioners be placed on the Agenda for the next GAC meeting (January 7, 8, 9, 1963). (McDaniel)

3. Minutes of Meetings 1869, 1873, 1877 and 1879

Deferred.

I will circulate to the Commissioners material regarding transcripts of minutes.

4. AEC 974/2 - Request by the Federal Republic of Germany to Lease Special Nuclear Material for Use in a Fast Reactor Core

Approved. (Wells)

5. AEC 967/3 - Proposed Extension of Contract with Westinghouse Electric Corporation

Approved. (Vinciguerra)

6. AEC 367/6 - Proposed Extension of Contract with Management Services, Inc., of Tennessee

Approved. (Vinciguerra)

Scientific Engineering) of the Japan Atomic Power Company, and Mr. Tohru Haginoya (Atomic Energy Attaché of the Japanese Embassy). This was a courtesy call.

At 2:30 p.m. the Commission met with representatives of the Los Angeles Department of Water and Power to discuss their plans for a 400 Mw reactor under modified third round design assistance. They are willing to build a spectral shift reactor (Babcock & Wilcox) with somewhat more AEC assistance.

At 3:50 p.m. I met with R. S. Stevenson (President) and Harold Etherington (General Manager) of Allis Chalmers and D. H. Weiss (Manager, Atomic Energy Applications, Washington). They have finished Phase I of the study of the PM-3-B (Portable Medium Power) reactor. They have succeeded in reducing the number of modules from 190 to 100, and the price to substantially below $9 million. They very sincerely and earnestly want the job and hope that we can consider them as starting with a new slate. They are interested in whether we are going ahead with our plans to have the second-stage in the design effort. I said that they succeeded in communicating their wishes to me but that I could not say anything further. I told them I am not sure just where the entire matter now stands. They are going to make a presentation of the results to the New York Operations Office tomorrow.

At 4:20 p.m. I presided over Commission Meeting 1900 (action summary attached). The Commission approved the recommendation to the State Department on safeguards (our attempts to convince our bilateral partners to transfer to IAEA safeguards by persuasion).

Bundy sent a memo describing the Working Group on Nuclear Tests (attached).

Thursday, December 13, 1962 - Washington, New York

Arnie Fritsch and I flew to New York on Eastern flight no. 783, leaving at 9:45 a.m. and arriving at 10:45 a.m. We were met by Joe Clark (Manager, New York Operations Office) who took us to his office to visit. We also visited the AEC Environmental Studies (fallout) Laboratory.

I attended Bill Knox's pre-Christmas luncheon which was held at the Wall Street Club on the 59th floor of the Chase Manhattan Bank Building (1 Chase Manhattan Plaza). Others attending included the Honorable Robert B. Anderson, Henry R. Borden (President, Brazilian Power Company), Vance Brand (President, International Investment Company, Washington, D.C.), Champ Cherry (Chairman of the Board, Pullman), Walker Cisler (President, Detroit Edison), Walter Dennis (Executive Vice President, Chase Manhattan Bank), Orvil Dryfoos (Publisher, New York Times), James A. Farley, Albert Gordon (Kidder, Peabody & Company), George Hearst, Axel Johnson (President, A. Johnson Company, Stockholm), Robert Koenig (President, Cerro Corporation), Harold Linder (Chairman, Export-Import Bank, Washington), James Linen (President, Time, Inc.), J. D. MacKenzie (Chairman and President, American Smelting and Refining Company and California alumnus), E. F. Martin (President, Bethlehem Steel), William Martin (Chairman, Federal Reserve System), George Moore (President, First National City Bank, NYC), Robert Murphy (President, Corning Glass), Honorable Richard C. Patterson (Chief of Protocol, NYC), John Schiff (Kuhn, Loeb & Company), W. Cordes Snyder (President, Blaw Knox), Juan T. Trippe (President, Pan American Airlines), DeWitt Wallace (Editor, Reader's Digest), William Whiteford (Chairman, Gulf Oil Corporation), George Woods (Chairman, First Boston Corporation, NYC) and others (list attached).

At 3:20 p.m. I met with V. V. Kuznetsov (Deputy Foreign Minister of the USSR). Also present were Valentin A. Zaitsev (Counselor to the Soviet UN Mission), Peter S. Thatcher (Adviser to the U.S. Mission at the UN) and Arnie Fritsch. The meeting, which was very friendly, was an outgrowth of Kuznetsov's visit with several other members of the Soviet Mission to the United Nations to the Brookhaven National Laboratory on December 11th.

OPTIONAL FORM NO. 10
5010-104
UNITED STATES GOVERNMENT

Memorandum

D. C. File

UNCL. BY DOE
NOV 86

TO : R. E. Hollingsworth, Acting General Manager

DATE: December 13, 1962

Approved: R. E. Hollingsworth
R. E. Hollingsworth

FROM : W. B. McCool, Secretary

Date 12/14/62

SUBJECT: ACTION SUMMARY OF MEETING 1900, WEDNESDAY, DECEMBER 12, 1962, 4:20 P.M., ROOM 1113-D, D. C. OFFICE

SECY:JFG

Commission Business

1. AEC 1084/9 - AEC-Procurement Regulations Concerning Conduct of Employees and Consultants of AEC Cost-Type Contractors and Certain Other Contractors

Approved, as revised, with the exception of the section regarding remuneration of AEC cost-type contractor employees who perform consultant services for another AEC cost-type contractor.

The Commission requested:

a. Prompt review of the practices of AEC cost-type contractors operating AEC facilities with respect to permitting their employees to receive fees for performing consulting work for others on their own time, i.e., weekends and annual leave;

b. A broad study listing the restrictions, other than monetary placed on scientific and technical personnel working for AEC university cost-type contractors or the National Laboratories as compared with restrictions placed on similar employees at universities or in industry;

c. Revision of appropriate paragraphs of AEC 1084/9 and its Appendices to indicate clearly that AEC approvals of proposed consultant services or other comparable employment services are required when there are significant questions concerning possible conflict with the Commission's information dissemination or patent policies;

d. Revision of paragraph 2 of Appendix "E" to indicate that remunerations in excess of $100 a day or 30 percent higher than the basic salary, whichever is greater, should require approval of contracting officer; and

e. Revision of paragraph 1(a), Appendix "F" to state "... over the personnel practices of contractors ..."

The portion relating to the payment of fees will be further considered by the Commission in the light of the practices of AEC cost-type contractors as determined by the review noted in a above.

2. AEC 1050/21 - Army Reactors Program

Approved. (Pittman)

The Commissioners agreed that the letters to Senator Jackson and Representative Holifield should now be dispatched. (Pittman)

3. AEC 25/232 - Proposed Navy Safety Rules

Approved. (Betts)

4. AEC 374/102 - Weapons Development

Approved, as revised. (Betts)

The Commission requested:

a. That appropriate revisions be made in paragraphs 5 and 6 of the draft letter to the Secretary of Defense;

b. That only Mr. Bundy be provided a copy of the letter at this time; and

c. That this matter be raised at the next GAC meeting.

(Betts)

5. AEC 1036/39 - Sub-contract for Architect-Engineer-Management Services for Stanford Linear Accelerator and AEC 1036/40 - Supplement

Approved, as revised. (Vinciguerra)

The Chairman requested the letter to the JCAE be redrafted for Commissioner Ramey's review. (Vinciguerra)

6. AEC 997/73 - Proposed New Policy Relating to the Transfer of Bilateral Responsibilities to the IAEA

Approved. (Walls)

The Chairman requested a summary for discussion with Senator Pastore at an appropriate time. (Wells)

The Commission requested review of the letter to the State Department and noted that the JCAE staff should be informed at the Monday meeting. (Wells/Ink)

7. AEC 997/74 - IAEA Safeguards for Reactors over 100 MW(t)

Approved. (Wells)

Items of Information

1. NATO CABAL Program

2. Death of Mr. Sapirie's father.

Other Business

In response to the Commissioners' request, you noted that recommendations on Joint Task Force 8 and future plans are in preparation. (Betts)

cc: Commissioners

Box 2 — 2/12/62 24086 1

THE WHITE HOUSE

WASHINGTON

UNCL. BY DOE 1988

December 12, 1962

NATIONAL SECURITY ACTION MEMORANDUM NO. 210

TO: The Secretary of State
The Secretary of Defense
The Chairman, Atomic Energy Commission
The Director, Office of Science and Technology
The Director, Bureau of the Budget
The Director, Arms Control and Disarmament Agency

SUBJECT: Underground Nuclear Tests

1. The President has directed the establishment of a Working Group on Underground Nuclear Tests to be comprised of representatives of the Departments of State and Defense, the Special Assistant to the President for National Security Affairs (Chairman), the Atomic Energy Commission, the Bureau of the Budget, and the Office of Science and Technology. The departmental representatives should be designated promptly and their names reported to this office.

2. The Working Group will review the schedule of tests for the remainder of FY 1963 and for FY 1964, and the policy and technical justifications therefor, to determine if the schedule is consistent with the requirements of national security and with foreign policy.

3. The Group's conclusions and recommendations should be transmitted to the President as soon as possible and no later than March 4, 1963.

McGeorge Bundy

McGeorge Bundy

Information copies to:
The Chairman, Joint Chiefs of Staff
The Director of Central Intelligence

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Westinghouse Pre-Christmas Luncheon, New York City, William E. Knox (Host)

December 13, 1962

Standing, L to R: George D. Woods, A. B. McCloskey, Seaborg, John J. Bergen, Ary F. Torres, George R. Hearst, Vance Brand, Martin M. Rosen, James A. Linen, Robert Schasseur, Edmund F. Martin, W. Cordes Snyder, Jr., E. E. Trefethen, Jr., Jose de Cubas, William E. Knox, Robert Murphy, Champ Carry, DeWitt Wallace, Alex Axson Johnson, Richard C. Patterson, Jr.

Seated, L to R: Albert H. Gordon, Juan T. Trippe, Harold F. Linder, Howard S. Cullman, E. V. Huggins, Orvil E. Dryfoos, Samuel C. Waugh, Henry R. Borden, J. D. MacKenzie, William F. Bramstedt, Robert B. Anderson, R. L. Jeans, Walter E. Dennis, William K. Whiteford, William J. Van Wie, Robert P. Koenig, J. D. Haight, John M. Schiff, William McC. Martin, Jr., Walker L. Cisler, Fred C. Foy, Harold H. Helm, George S. Moore

Westinghouse Pre-Christmas Luncheon, December 13, 1962

L to R: William Knox, Seaborg, DeWitt Wallace, Fred Foy

L to R: Seaborg, William Knox, James Farley

Guests at

William E. Knox Pre-Christmas Luncheon, Dec. 13, 1962

George D. Woods
A. B. McCloskey
Glenn T. Seaborg
John J. Bergen
Ary F. Torres
George R. Hearst
Vance Brand,
Martin M. Rosen
James A. Linen
Robert Schasseur
Edmund F. Martin
W. Cordes Snyder, Jr.
E. E. Trefethen, Jr.
Jose de Cubas
William E. Knox
Robert Murphy
Champ Carry
DeWitt Wallace,
Axel Ax:son Johnson
Richard C. Patterson, Jr.
Albert H. Gordon
Juan T. Trippe
Harold F. Linder
Howard S. Cullman
E. V. Huggins
Orvil E. Dryfoos
Samuel C. Waugh
Henry R. Borden
J. D. MacKenzie
William F. Bramstedt
Robert B. Anderson
R. J. Jeans
Walter E. Dennis
William K. Whiteford
William J. Van Wie
Robert P. Loenig
J. D. Haight
John M. Schiff
William McC. Martin, Jr.
Walker L. Cisler
Fred C. Foy
Harold H. Helm
George S. Moore

There was little of a substantive nature discussed. Kuznetsov did raise the subject of test ban negotiations, but I intentionally did not follow this up. One item discussed was the apparent differences between the scientific and political relations of the U.S. and the USSR. Both Kuznetsov, who has a technical background, and I agreed that the scientific contacts between the two countries have generally been more amiable and considerably more successful than the political. In the course of the discussion I noted the proposed amendments to the U.S.-USSR Exchange Agreement and indicated that Professors Emelyanov and Petrosyants have been invited to visit this country in order to conclude the final details of the arrangements. He invited me to make a visit to Moscow. We also discussed the Third Geneva Conference on Atomic Energy in the light of these scientific contacts between East and West.

I then went to the U.S. Mission to the UN and met with Adlai Stevenson for about 30 minutes. We discussed the test ban, Soviet attitudes, etc. Adlai was particularly interested in my assessment of future relationships with the Soviets and the results of my talk with Kuznetsov.

I attended the 1962 Annual Weizmann Institute black tie reception (Princesse and Royal Ballroom) and dinner (Imperial Ballroom) in the Americana Hotel as a dais guest at the invitation of Arthur B. Krim (Dinner Co-chairman).

I spent the night at the Americana Hotel.

Friday, December 14, 1962 - New York - Brookhaven - Washington

Fritsch and I visited Brookhaven National Laboratory, the Brookhaven Area Office, the AGS and Cosmotron, the 60-Inch Cyclotron, the Graphite Reactor, and the Van de Graaff.

We had lunch with George Green (a pre-war Berkeley friend), Norris Glasoe, Richard Dodson, Curtis, Hyman Goldsmith, Van Horne, Victor Bond and many others.

We flew back to Washington on Allegheny flight no. 926, leaving Islip at 3:25 p.m. and arriving at 5:20 p.m.

During my absence I received an offer (a phone call to my office) from Regent Danielson of the University of Colorado to become president of the University of Colorado. I will decline.

Saturday, December 15, 1962 - D.C.

I worked most of the day in the office. The Commission met to discuss the BOB response to our FY 1964 budget appeal. BOB allowed some $60 million additional, including, $35 million for a prototype (spectral shift) reactor (on the basis of my appeal to Bell at lunch on December 4th), $10 million on ROVER for NERVA (on the basis of Senator Anderson's and my appeal to President Kennedy during our visit to Los Alamos on December 7th).

After the Commission meeting I called Bell (at 12:50 p.m.) and said we have several items we feel very strongly about, which I would like to mention to him for restoration to the budget. I said he may wish to take these items up with the President or that I would be glad to do so. The first item I mentioned was the physics building at the University of Chicago ($800,000). I explained that this is the building for the scientists at the University of Chicago to use for the accelerator at ANL, for which the University furnishes the top scientific talent. I said this will be the third year that this is being put off and that the

University is becoming quite desperate. I also said that I wish he would tell the President that there is a feeling that the Administration is not implementing the PSAC Panel Report in support of education and that a few items like this will build up considerable discontent among many universities.

Second was the addition to the biomedical building in Puerto Rico ($750,000). I explained the importance of the Center in our relations in Latin America. Bell said there is no problem about the Center; it is just a question of whether it is so urgent that it should be included in this budget, which the President definitely considers a "retreat" budget.

Third was the roll-up of PLUTO, conclusion of the Tory 2-C test ($2 million). I explained that these funds are necessary for the evaluation of the test data; i.e., a protection of the investment we already have in this project. Bell seemed to agree that this would be wise and said that Fred Schuldt would probably be in touch with our people today on this item.

Fourth item was the electron accelerator at M.I.T. (4.9 million). I said that when we discussed this item last year, in Bundy's and Wiesner's presence, it was referred to as a "deferral" for a year. Bell said he would check this.

Fifth was Plowshare. I pointed out that, if this cut is made, it means the elimination of COACH, and we then run the risk of having the Russians discover the transuranium elements, beginning with 104. I stressed the impact that would result from such a discovery and the naming of these elements after the Russians. Our request for Plowshare was $17.6 million, and BOB is cutting it to $12 million. Bell asked whether it will take all of the $5.6 million which is cut out, and I said that we could probably do it on $4 million. He said he will pass my views on to the President. Bell asked what our first choice is with regard to the Argonne research reactor and the M.I.T. accelerator. I said that Argonne definitely is first, but the difficulty there is that it will cost $25 million. Bell asked whether there is any possibility of making it simpler and cheaper. I said that I am writing Argonne to make suggestions along these lines.

At 2 p.m. I telephoned T. V. A. Dillon (Washington representative, E.C.I. Engineering Consultants, Inc., Denver, Colorado) to decline the presidency of the University of Colorado. I had been asked to give my answer to Mr. Dillon.

Helen and I attended the AERWA Christmas dance at the Washington Hotel.

Sunday, December 16, 1962

I worked on AEC papers and read journals at home.

Monday, December 17, 1962 - D.C.

From 9:30 a.m. to 1 p.m. I attended a meeting of PSAC where the funding of the ROVER program, the future of TITAN III, and civil defense were discussed.

I wrote a letter to Bell (copy attached) emphasizing the points on the 1964 budget that I made to him last Saturday. He is seeing President Kennedy about this today.

At 1:55 p.m. I presided over Information Meeting 223 (notes attached).

Removed pending review by other agencies.

December 17, 1962

UNCL. BY DOE
NOV 86

Dear Dave:

In anticipation of your discussion of the AEC budget with the President, I thought you might find the following few brief comments helpful. Perhaps you would like to show this letter to the President.

1. Coach experiment is an important means for producing heavy transuranium isotopes, possibly including isotopes of new elements with atomic number greater than 103. An underground nuclear explosion would be used as a source of neutrons to irradiate uranium-238. The half lives for new elements are predicted to be sufficiently long for isolation and detection. The main problem at present is the development of a device with a sufficiently high neutron flux. This device is being actively developed in underground tests in Nevada, and the results to date appear promising. To complete the efforts already undertaken, some $5,000,000 are required in fiscal '64, although $4,000,000 may be sufficient. This experiment has tremendous implications from the standpoint of national prestige, probably comparable to some of the more spectacular space experiments. It also would be the best and clearest example of the peaceful uses of nuclear explosives, a point of some value in the test ban negotiations.

2. The High Energy Physics Building at the University of Chicago ($800,000) is needed in order to make it possible for University of Chicago physicists to utilize efficiently the huge ZGS accelerator built at a cost of $51,000,000 at the nearby Argonne National Laboratory (30 miles away), and operated by the University of Chicago. This is the only university building being requested by the AEC (outside of the AEC laboratories). It is a mission-oriented building in the same sense that the many buildings furnished the University by NASA are mission-oriented. In addition, I, personally, feel that much too little is being done by the present administration in implementation of the President's Science Advisory Committee Panel report Scientific Progress, The Universities, and The Federal Government published on November 15, 1960, and that the best present way of implementing this report is through multi-agency support of graduate education and research, that is, by agencies such as NSF, NASA, NIH and AEC.

3. The Electron Linear Accelerator at MIT ($4,900,000) would be the only accelerator that the AEC would be building outside of its own laboratories, and the argument again in favor of it is that this would be a small step in the implementation of this administration's support of graduate education and research in universities. It is noted that this item was in the fiscal '63 budget request, but was deferred with the understanding, I thought, that it would be included in the fiscal '64 budget.

4. The Addition to the Biomedical Building of the Puerto Rico Nuclear Center ($750,000) is important, since this Center has a great potential for augmented use as an Inter-American Laboratory. In addition, Sigvard Eklund, Director General of the International Atomic Energy Agency, recently raised with me the question of whether the US could use this laboratory in cooperation with the Agency to make contributions to the scientific development of underdeveloped countries. The additional space in the building would also be needed in order to make these contributions possible.

5. The Argonne Advanced Research Reactor ($25,000,000) is the number one priority item both in the Argonne National Laboratory's capital improvement budget for research, and in the AEC's Division of Research budget. If the high cost is a primary consideration, the laboratory could be directed to design a reactor at a somewhat lower cost which would still be useful to them.

Sincerely yours,

Glenn T. Seaborg

Honorable David E. Bell
Director
Bureau of the Budget

GTS:mc

CROSS REFERENCE SHEET

Document # 901525

TITLE OF DOCUMENT Unground Nuclear Tests (Subject) 12/12/62. Letter from Buddy to Multiple addressee's

This document requires further classification review and has been removed from this folder.

Jeffrey B. Sachs
Name

August 22, 1986
Date

577

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CROSS REFERENCE SHEET

Document # 901522

TITLE OF DOCUMENT Diary Entry - 12/12/62 - 2 pages

This document requires further classification review and has been removed from this folder.

Jeffrey B. Nalu
Name

August 22, 1986
Date

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24079-24080

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

COPY NO. 15

December 17, 1962

INFORMATION MEETING 223

UNCL. BY DOE NOV 86

1:55 p.m., Monday, December 17, 1962 - Chairman's Office, D. C.

1. Commissioners' Visit to USS ENTERPRISE Tomorrow, December 18.

2. Commissioners' Possible Visit to Idaho Falls, December 26 - 28.

3. BOB Markup, Fiscal Year 1964 Budget Estimates.

The Chairman discussed briefly the Commissioners' consideration on Saturday of the BOB markup and his later discussion with Director Bell appealing the following items:

a) Physics Building in Chicago;
b) Additional Bio-medical Laboratory, Puerto Rico;
c) Additional Pluto funding;
d) MIT Electron Linear Accelerator;
e) Argonne Accelerator;
f) Plowshare Program.

4. NSAM No. 210, Mr. Bundy's Letter of December 12.

The Chairman noted Dr. Haworth and General Betts will be the Commission representatives. (Betts)

5. Letter to Representative Baring re Mr. Orville Bell's Proposal to Construct a Townsite at Crystal Springs, Nevada.

The Commissioners requested revision of the proposed letter to Representative Baring in light of Mr. Bell's December 10 letter proposal.

(Commissioner Palfrey entered the meeting at this point)

6. President's Science Advisory Committee Meeting Today.

The Chairman reported briefly on the subjects discussed this morning: a) Rover Program; b) Titan III Requirement; c) Civil Defense. With respect to the latter, the Commissioners noted Dr. Weinberg's proposal is under review. (English)

7. Chairman's Visit to Brookhaven Laboratory, Friday, December 14.

8. Western Cooperative Accelerator Project.

The Chairman noted Dr. Weisskopf will discuss this matter with the Commission shortly and Dr. Haworth noted he had asked the PSAC-GAC panel to include consideration of this project in their discussions.

9. 1965 Requirements.

The Commissioners discussed briefly the draft joint letter, pricing out the requirements and the Chairman requested information on FY 1964 Budget identification. (Abbadessa-Betts)

10. DOD Letter re Mark 12 Requirements.

11. Cooperation with the French.

The Chairman noted the Department of State's telegram to the American Embassy in Paris, indicating that the matter of the sale of a nuclear submarine is not to be pursued. The Commissioners requested early recommendations on assistance to the French re safety of nuclear weapons. (Wells-Betts).

12. Controller General's Report to the Joint Committee on Review of AEC Contracts for Lithium Hydride.

The Chairman noted the Controller General's report criticizing AEC procedures here and Mr. Hollingsworth said the staff has reviewed the report with GAO and is alert to respond to Joint Committee questions.

13. Draft Letter to Secretary Celebrezze re FRC Statement on Radioactive Iodine Fallout.

The Commissioners discussed the draft letter briefly and will review it for further discussion.

14. Utilization by the AEC of Colorado River Storage Project Power (General Manager's Memorandum of December 4, 1962).

The Commissioners discussed this matter briefly, Commissioners Wilson and Haworth commenting that they were not in complete agreement with the staff re the factor of adjustment for taxes. Commissioner Ramey noted that although this is a troublesome matter, the staff should probably proceed as outlined in the paper. However, the invitations for bids on power for the Albuquerque area and for the Los Alamos area are to be separated and the staff will discuss this matter with Senator Anderson prior to the issuance of invitations to bid. (Vinciguerra)

(Commissioner Haworth left the meeting at this point)

15. Commissioners' Meeting with Ambassador Galbraith, Department of State, 4:00 p.m., Today.

Dr. Wilson and perhaps other Commissioners will attend.

16. Extension of Proposal Deadline on Modified Third Round Reactor Projects.

The Commissioners agreed to an extension from January 3, 1963 to January 25, 1963 for receipt of proposals, and February 28, 1963 to March 29, 1963 for consideration of proposals. (Vinciguerra)

17. Southern California Edison Reactor Project (Camp Pendleton).

Mr. Hollingsworth reported that Southern California Edison is discussing with the Department of the Navy and AEC staff this week the legislative language which will be sent forward and remarked that Southern California Edison might come in with a request for an extension of the January 3 deadline.

18. SAVANNAH Sailing for Honolulu, December 16.

Noted.

19. December 7 Letter from Harold Uray re Deuterium Corporation's Interest in a Small Scale Heavy Water Plant.

Dr. Wilson discussed this matter with the Commissioners briefly.

20. Effect of Executive Order on Non-Discrimination in Housing on AEC Commercial and Community Facilities.

Mr. Hennessey discussed this matter briefly.

PRESENT		DISTRIBUTION
Dr. Seaborg	Mr. Hollingsworth	Commissioners
Dr. Haworth*	Mr. Hennessey	General Manager
Dr. Wilson	Mr. Ink	General Counsel
Mr. Palfrey*	Mr. Henderson	Secretary
Mr. Ramey	Mr. McCool	

W. B. McCool
Secretary

*Partial attendance.

I sent a letter to McNamara suggesting that we write a joint letter to the President asking for a decision on a national policy on the question of building big (100 MT) bombs.

I wrote letters to Pierre Chatenet (President, Euratom) and Francis Perrin (Head, French AEC) (copies attached), saying that the U.S. will furnish them the 400-500 kg of plutonium they requested for the fast reactor program.

I wrote to Rusk (copy attached) protesting the U.K demands for submarine design information in order to make safety determinations for port entry; this is demanded in their draft agreement.

I called Gilpatric (who returned my earlier call at 6 p.m.) to say the matter of disposition of Joint Task Force (JTF 8) should be settled. I said I think the basic decision to be made is whether there will be a test series in 1963. AEC's feeling is that we could be ready at that time and DOD's feeling is they prefer something about a year later. Our people feel that the level of personnel should be about 75 or 100, if the decision is to keep the JTF 8 in operation. The length of time it takes (five to seven months) to prepare for testing should be taken into consideration. Ros said he doesn't have an answer now, but that he will talk with Jerry and Harold Brown and call me shortly.

From 5 p.m. to 5:30 p.m. the family went to see President Kennedy light the National Christmas tree in a ceremony held south of the White House on the Ellipse area.

Tuesday, December 18, 1962 - D.C.

Rickover, Palfrey and I flew in one Navy TS-8 plane, and Ramey, Hollingsworth, McCool and Abbadessa in another, to the USS Enterprise, about 40 miles out from Norfolk. We left at 8 a.m. and arrived at 9:10 a.m.

Rear Admiral Hayward (Captain), Vice Admiral J. D. Griffin (Deputy Chief, Naval Operations), Dan Brooks (Reactor Technical Officer, a Berkeley student, 1946-1949), and others, including Rickover, Rockwell and David Leighton, showed us the nuclear power plant (one of eight), the computer center, weapons center, etc.

While on the Enterprise, Palfrey, Ramey and I held a meeting to discuss nuclear power for naval vessels and decided to recommend to McNamara and the President its wider use. We also adopted a resolution of commendation for the personnel of the Enterprise.

I flew back to Washington, leaving at 2:15 p.m. and arriving at 3:45 p.m. The others flew back later.

At 4:20 p.m. I received a call from Bell who reported the results of his and Jerry Wiesner's discussions with the President last evening on the AEC budget. The COACH project has been approved at $4 million although the President was a little reluctant on it. The electron linear accelerator at MIT was cut out. The addition to the biomedical building of the PRNC (Puerto Rico Nuclear Center) was left out since the President felt this could be deferred. The high energy physics building at the University of Chicago was not deferred (i.e., is in the 1964 budget). Their concern is the pattern of providing academic buildings under several different formulae. He said an analysis of the problem (which will take three to four months) is to be undertaken by the BOB and Wiesner's office. Following, a review will be made on the request for the Chicago building, and it will be handled by reprogramming funds within the appropriation. He said they are simply recognizing that they are not ready for the Seaborg Report, but they are working on it. I

DO FILE

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

IN REPLY REFER TO:

DEC 18 1962

Dear Mr. Chatenet:

UNCL. BY DOE
NOV 86

We discussed in Paris this September the initial Euratom plutonium requirements for your fast reactor program. I was unable, pending the outcome of our analysis of the supply and demand over the next several years, to be definite as to the availability of United States plutonium for your program. An analysis has now been made, and I am pleased to inform you that we are able to provide Euratom, within the framework of the closer United States-Euratom fast reactor cooperative effort which our staffs are currently discussing, the plutonium needed for the second core of the Rapsodie fast reactor (80 kgs.) as well as the fuel loading which would be shared between the Cadarache and Karlsruhe fast criticals (about 350 kgs.).

Our ability to supply the plutonium, in view of the many competing demands for this material, is, as you know, based on our interest in the excellent fast reactor development program now being planned in the Community. It assumes, therefore, that we will develop mutually satisfactory arrangements for a comprehensive exchange of information in this area.

This offer must for the present, however, be contingent upon obtaining the necessary Congressional and Presidential authorizations. In this connection, we are already taking steps to seek these authorizations on a timely schedule. Details of the terms and conditions under which the plutonium would be supplied have not been fully developed; thus, we would propose to discuss this aspect with you at a later date.

We trust you share our belief that the availability of this plutonium will not only assist your program planning but will also materially contribute to our future cooperative effort in the fast reactor field, which in our opinion will be of significant benefit to all concerned.

Sincerely yours,

[illegible]

Chairman

Honorable Pierre Chatenet
President
European Atomic Energy Community
51 Rue Belliard
Brussels, Belgium

cc: Chairman (2)
Commissioner Haworth
Commissioner Palfrey
Commissioner Ramey
Commissioner Wilson
GM
AGMLA
Brussels Office
Secretariat (2)
State (2)

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

DC FILE

IN REPLY REFER TO:

DEC 18 1962

L. BY DOE
NOV 86

Dear Dr. Perrin:

On a number of occasions in recent months you have identified plutonium availability as the major problem for the French fast reactor program. President Chatenet of Euratom, as you know, has also requested that we consider this problem in terms of the initial plutonium requirements of the Euratom fast reactor program.

I am now pleased to inform you that a recent review of our plutonium supply and demand situation over the next several years has permitted us to advise President Chatenet that we will be able to provide Euratom, within the framework of the closer U.S.-Euratom fast reactor cooperative effort which our staffs are currently discussing, the plutonium needed for the second core of the Rapsodie fast reactor (30 kgs.) as well as the fuel loading which would be shared between the Cadarache and Karlsruhe fast criticals (about 350 kgs.)

Our ability to supply the plutonium, in view of the many competing demands for this material, is, as you know, based on our interest in the excellent fast reactor development program now being planned in the Community. It assumes, therefore, that we will develop mutually satisfactory arrangements for a comprehensive exchange of information in this area.

This offer must for the present, however, be contingent upon obtaining the necessary Congressional and Presidential authorizations on a timely schedule. Details of the terms and conditions under which the plutonium would be supplied have not been fully developed; thus, we would propose to discuss this aspect with you at a later date.

We trust you share our belief that the availability of this plutonium will not only assist your program planning but will also materially contribute to our future cooperative effort in the fast reactor field, which in our opinion will be of significant benefit to all concerned.

Sincerely yours,

[illegible]

Chairman

Dr. Francis Perrin
High Commissioner
Commissariat a l'Energie Atomique
69 Rue de Varenne
Boite Postale 307
Paris VII, France

cc: Chairman (2)
Commissioner Ramsey
Commissioner Palfrey
Commissioner Nancy
Commissioner Wilson
GM
ACNIA
Brussels Office
Secretariat (2)
State (2)

OFFICE DIARY
GLENN T. SEABORG
Chr USAEC, 1961-72
FOLDER-PAGE 24091

12/17/62

NOT DECLASSIFIABLE

DOCUMENT TITLE Letter AEC Seaborg to Sec. State Rusk dated 12/18/62 – "The Commission has viewed with serious concern . . ."
0901528

This document has been determined to be NOT DECLASSIFIABLE and has been removed from this folder.

W. Tonch
Name

11/24/87
Date

Reference:
Letter DOS Burke To DOE, OC Gilbert dated 8/19/87

587

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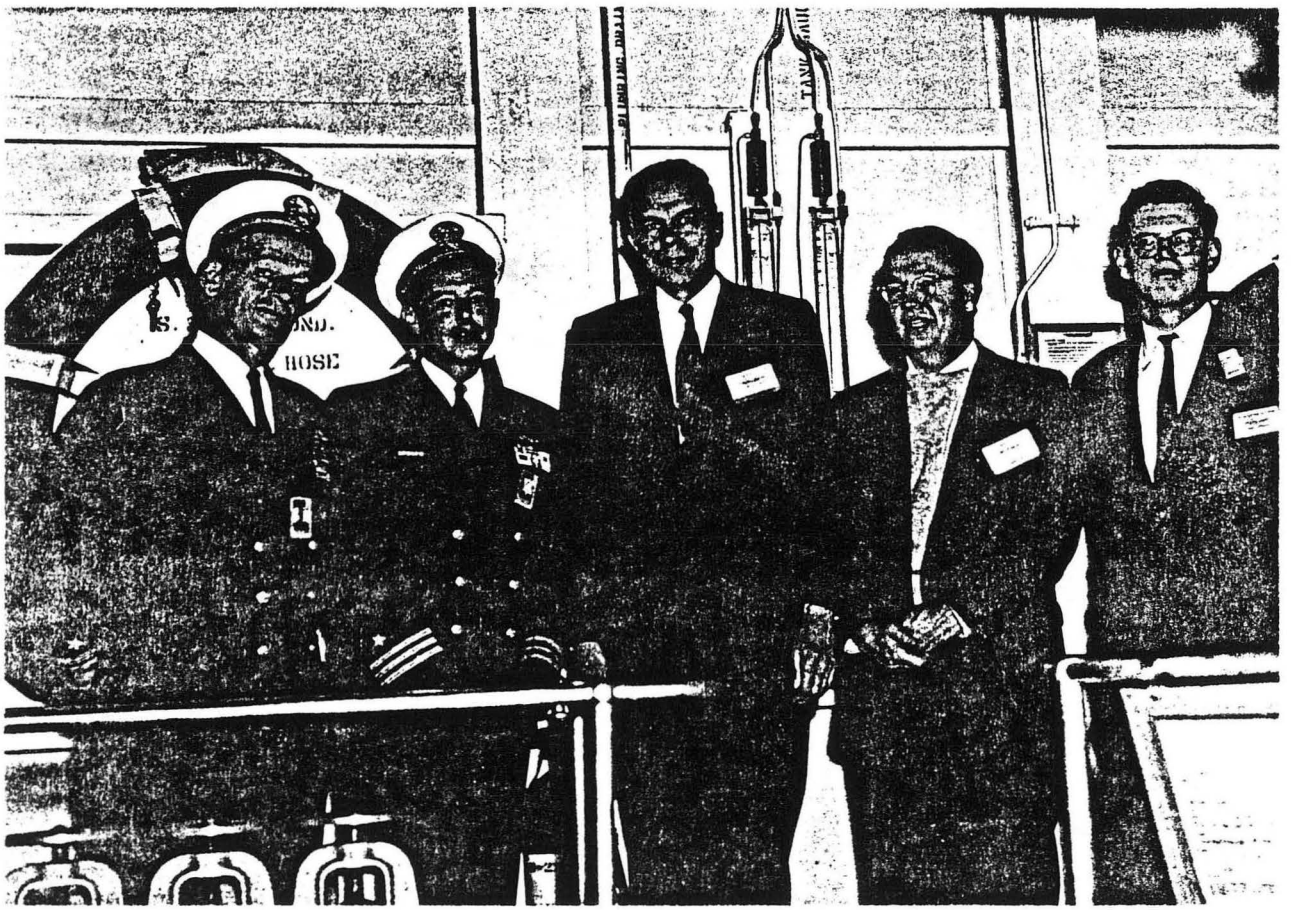

Visit to USS Enterprise, approximately 40 miles out from Norfolk, Virginia, December 18, 1962

L to R: Rear Admiral Hayward (Captain), J. D. Griffin (Deputy Chief Naval Operations), Seaborg and Commissioners Ramey and Palfrey

asked if a committee is to be set up to study the formulae now being used, and he said they haven't considered whether the work should be done by a committee. He asked if I think it will be useful to bring in people from the universities. I told him I think it would and he agreed. They have discussed the Argonne advanced research reactor in relation to the M.I.T. project, but the President felt very restrictive.

Bell told me that he is being sworn in as Director of AID on Friday and thus leaving his position as Director of the Bureau of the Budget. We plan to get together soon to discuss the AEC relationship to AID.

I called Senator Anderson to tell him that we got a little money ($10,000,000) for ROVER and that NASA's budget was also increased. I said I think the increase received is a direct result of his and my intervention with the President during his visit to Los Alamos on December 7th. I told him that there is an implication that if the tests are very successful, we will be in a good position for a supplemental. Anderson asked my advice as to what he should do; he asked if I thought we should just accept what comes and see what works out. I told him I think this is best, particularly, since the possibility of trouble with the tests exists. I said I think he could encourage the Los Alamos people to get engineering help. He said he will try to make a strong point of this.

I called John Kelly to tell him that I have gone, more or less personally, to the President to get more money for COACH and we will get it, so now I think we should keep some flexibility on this additional money. I said that I am intrigued with what Los Alamos is doing and their ability to carry on these experiments in conjunction with weapons tests. I said the President was a little reluctant to give us the money for this project; but, since he has done so, I think we should be very careful with it. He agrees with me.

I called Wiesner to talk about the University of Chicago building and said I understand that he, Bell and other members of the Bureau are going to make a study on funding, and that I wonder whether it is safe to tell Chicago they will get matching funds. Weisner said it is his understanding that there will be $400,000 in the budget for it. He said he thinks that perhaps the Federal Council should be asked to work on the problem. I suggested a committee including university people and Wiesner mentioned the use of the American Council on Education.

I called Gary Higgins (Livermore) and asked him whether he heard that the Plowshare Advisory Committee has recommended that COACH be postponed a year because the chemical processing is not ready. He said he has not heard that, besides it doesn't make sense because the chemical process is a simple one. I asked Gary where the work is being done and he said at Oak Ridge, Savannah River and at LRL. I asked him about the use of bismuth phosphate, and he said it works as well as the iron process but takes a little more control and, as a matter of fact, it gives a better yield and a cleaner solution. I told him I think we are going to get more money for COACH in 1964. He said he was sure they could do it in late May or early June and they will get to the point where they will want to do processing within 12 months. I stated that Los Alamos also has something cooking here and that I want to look into that before making any allocations. Higgins suggested it might be a joint experiment at Carlsbad. I mentioned that Los Alamos could perfect the device in connection with a weapons test at no cost to COACH.

I sent a letter (copy attached) to Holifield replying to the one he and Senator Jackson wrote me concerning the Byrd Station project and the future plans for the remote site reactor program.

Watson Davis of Science Service asked by telephone, if I could spend two or three

DEC 1 8 1962

UNCL. BY DOE
NOV 86

Dear Mr. Holifield:

Reference is made to the letter of October 22, 1962, from you and Senator Jackson, concerning the Byrd Station project and the future plans for the remote site reactor program.

The Commission shares your conviction regarding the substantial benefits to be attained under the remote site reactor program. This year has been particularly noteworthy in this respect, having seen these benefits become a reality at such widely diverse locations as Wyoming, Alaska, and the Antarctic coast.

The deferral of the Byrd Station effort is, of course, disappointing in that objectives of that project will not be attained as soon as originally anticipated. In this regard, however, it should be noted that while the rise in costs, the slippage in schedule and the magnitude of the logistic effort were matters of substantial concern, these factors in and of themselves would not have precluded the installation of the PM-3B at the Byrd Station if the nature of the requirement had demanded such action. In the absence of an urgent need for a Byrd Station nuclear plant, however, it was felt that the only responsible course of action was to defer the project.

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The requested information, with the exception of a copy of the report referred to in M-2, is attached. This report is classified Confidential and has been dispatched separately. We will be glad to supply any additional information you may require.

Sincerely yours,

(Signed) Glenn T. Seaborg
Chairman

Honorable Chet Holifield
Chairman, Joint Committee on
Atomic Energy
Congress of the United States

Enclosure:
As stated

DISTRIBUTION:
Subject
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Chairman (2)
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NPD/RC/OCE
WSB (Artman)

RD:OA	RD:P	GC:Reich	Controller	Contracts	Cong Liaison
Arrotta	Staebler				
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RD:PA:Jackson	RD:PA	RD:D	AGMRD	AGM/DGM	GM
lcp/fjb	Rosen/Burlin				
11/10/62	11/ /62	11/ /62	11/ /62	11/ /62	11/ /62

591

hours on Saturday morning, March 2, 1963, at the Statler Hotel, looking over the projects of the top Science Talent Search winners.

Wednesday, December 19, 1962 - Germantown

At 9:45 a.m. I presided over Information Meeting 224 (notes attached).

At 11:25 a.m. I presided over Commission Meeting 1903 (action summary attached). We approved an agreement with Texas to transfer certain regulatory functions to them. We discussed the November 1962 planning estimates for weapons build for 1965, and estimates for 1966 and 1967. We approved the plan to meet DOD requirements, but word from the BOB suggests that DOD requirements, expressed in Gilpatric's letter to the President, may be changed (lowered substantially). A meeting will be held on this tomorrow with Bell, Gilpatric, etc. The Commission approved the inclusion of the German KRB (G.E. Boiling Water) 237 Mwe reactor under the joint U.S.-Euratom program. It must be completed by December 31, 1965. (Ramey dissented).

I signed a letter to the President outlining the January 1 to March 31, 1963, underground test series (STORAX-III, 19 shots).

I had lunch with Shields Warren, Charles Dunham and Chris Henderson to discuss Civil Defense.

Jerry Johnson called me about the 1965 stockpile and asked if I have heard the latest BOB thinking on it. I said we would know later this afternoon as Howard Brown has gone to the Bureau of the Budget to be briefed. He says the primary troublesome area is going to be the alloy and it looks as though we will have to cut back again. I asked about plutonium, and he said it looks as though our projected requirements through 1967 are in balance. I said I think we should go ahead on the plutonium because we are now investigating the use of curium-244 as an isotope for the SNAP device; and, if it does prove to be the best isotope, then we will need plutonium to irradiate and the needed neutrons will also subtract plutonium production.

Jerry thinks it might be appropriate to discuss the stockpile at the AEC-MLC meeting tomorrow morning. I told him about my call to Gilpatric regarding the joint letter of DOD and AEC. It is agreed we should send over our letter which will be used as a format for the new letter to be prepared with the correct figures. I also told him that I have talked to Gilpatric about the need for the JTF-8 at Christmas Island and asked for the DOD's thoughts. Gilpatric said he will call and give me their answer. Jerry asked if it is my idea that it should be a joint position, and I said I think that is best, but in any event we would want to know the position of DOD before making a decision.

I received a call from Governor Bert Combs of Kentucky who asked if I would be interested in the presidency of the University of Kentucky. He said he would like to suggest my name to the screening board if I am at all interested. I told him I appreciated his thinking of me, but my plans are to return to the University of California when I complete this assignment.

At 2:45 p.m. I met with Lou Roddis, Jr. (President, Atomic Industrial Forum) to discuss plans for a joint AIF-AEC meeting next spring to discuss the Civilian Nuclear Power Report, AIF public seminars planned for the next year, AEC-AIF relations, which are good, etc.

At 3:20 p.m. I met again with Singleton (Senior Vice President) and Harold Etherington (General Manager) of Allis-Chalmers who said they have made their

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

COPY NO. [illegible]

December 19, 1962

UNCL. BY DOE NOV 88

INFORMATION MEETING 224

9:45 a.m., Wednesday, December 19, 1962 - Chairman's Conference Room, A-457

1. Commissioners' Visit to National Reactor Test Station, Arco, Idaho, December 26-28, 1962.

The Chairman said arrangements have been made for departure at 5:00 p.m., Wednesday, December 26, with return approximately 10:00 p.m., Friday, December 28.

2. December 18 Announcement re Soviet Nuclear Tests.

Dr. Wilson commented that in reviewing the information he had recommended that the announcement be made.

3. Special Report.

4. Letter to Secretary Gilpatric re Joint Task Force 8.

The Chairman said he had discussed this matter with Secretary Gilpatric on Monday and would send a confirming letter. (Henderson-Betts)

√ 5. December 18 Letter to Secretary of State re Entry of US Nuclear Naval Vessels to UK Ports.

The Chairman noted transmittal of the letter.

6. Chairman's Discussion with Secretary Gilpatric of Procedure for Coordinated Submission of Requirements.

The Chairman noted that he had discussed this matter with Secretary Gilpatric and agreed in this case the AEC would send a separate letter inasmuch as the DoD letter has already been transmitted. The Commissioners agreed it would be prudent to remind Secretary Gilpatric early next year by letter of the agreed procedures which were established last spring. (Betts-Henderson)

7. Final Markup of FY 1964 Budget Estimates.

The Chairman said Director Bell had called him following Presidential review of the Commission's budget appeals, to inform him that funding had been allowed for only the Plowshare (Coach) Program in addition to the previously approved $2 million for Pluto.

8. Study of Policy on Federal Funding of Buildings for Universities.

The Chairman, in discussing the report from Director Bell, noted that although the Commission's appeal for the physics building at Chicago University had been denied, it had been agreed that a study of the policy of federal assistance in the construction of buildings on university campuses would be undertaken. (Abbadessa-Ink-English)

9. Chemical Processing Experiments in the Plowshare Program.

The Chairman said he had talked to Dr. Higgins about the problem of delay and Mr. Hollingsworth said he would look into the matter today. (Kelly-GM)

10. Congressman Holifield's Concern re Pluto Program Funding.

Mr. Ink reported Mr. Conway's discussion with him of Mr. Holifield's questions regarding the status of the Pluto Program in the light of recent budget decisions and the November 19 letter from Dr. Harold Brown to the General Manager. The Commissioners requested the staff to obtain an interpretation of the intent of subparagraph c) of the November 19 letter, after which the Chairman will telephone Mr. Holifield to discuss the Chairman's review of the program with Dr. Harold Brown, the Commission's budget reclama and the scope of the program under the additional allotment of $2 million. (Ink-Henderson)

(Mr. Palfrey entered the meeting at this point)

11. Chairman's Discussion of Rover Program with Senator Anderson.

The Chairman said he had called Senator Anderson to discuss with him the Rover Program. He noted Senator Anderson recognized Commission efforts had resulted in some gain for the program.

12. Status of the Maritime Reactor Program.

The Chairman said Mr. Alexander had telephoned him on Monday to discuss Mr. Alexander's concern re the cutback of the follow-on Maritime Program and to report that in light of this action it was unlikely that Mr. Robb would wish to continue as Director of the Program. Mr. Hollingsworth noted the need for early termination of the 630A Program and the adverse affect of this on the Maritime Reactor Program. The Chairman requested

consideration of reprogramming funds to keep the program alive and the Commissioners noted that if it necessary to terminate the program, the Commissioners should be informed prior to any actions in the matter. In the meantime, the Commissioners will meet with Mr. Alexander at 2:45 p.m., Thursday, December 20, Room 1113-B, D.C. Office, to discuss the program.

13. 138th Joint AEC-MLC Conference, 10:30 a.m., Thursday, December 20, 1962, The Pentagon.

14. Letter re Plans for Storax III.

Mr. Ink noted the proposed letter is in review for early Commission consideration. (Betts)

15. General Manager's December 6 Memorandum re Proposed Barter of Uranium with South Africa.

Dr. Wilson expressed the view that we should not be so negative on this matter and the Commissioners noted the intrinsic merit of the proposal, pointing out the difficulties for the AEC in the development of such an arrangement.

16. December 18 Staff Meeting with Southern California Edison Officials.

Mr. Ink reported Southern California Edison officials had met with AEC staff yesterday after their discussions with the Navy of legislation for authorization for an easement at the Camp Pendleton site. Southern California Edison will come in with a letter prior to January 3, 1963, stating their proposal, its relationship to the required legislation, and discussing briefly some proposed changes which will be requested later in the month. A paper on the matter will be distributed to the Commissioners tomorrow for preliminary discussion on Friday, December 21. (Ink-Secy)

17. Commission Visit to USS ENTERPRISE, December 18, 1962.

The Chairman discussed briefly the Commission's visit to the Enterprise yesterday and noted that he had requested Commissioner Ramey to prepare a study on broader uses of nuclear power in the Navy in preparation for Commission discussion of this matter with the Department of Defense.

PRESENT

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

DISTRIBUTION

Commissioners
General Manager
General Counsel
Secretary

W. B. McCool
Secretary

* Partial attendance.

OPTIONAL FORM NO. 10
5010-104

UNITED STATES GOVERNMENT

Memorandum

UNCL. BY DC
NOV 86

TO : R. E. Hollingsworth, Acting General Manager

DATE: December 19, 1962

Approved R. E. Hollingsworth

Date 12/26/62

FROM : W. B. McCool, Secretary

W. B. McCool

SUBJECT: ACTION SUMMARY OF MEETING 1903, WEDNESDAY, DECEMBER 19, 1962, 11:25 A.M., ROOM A-410, GERMANTOWN, MARYLAND

SECY: JFG

Commission Business

1. Minutes of Meetings 1869, 1873, 1876, 1877, 1878, 1879 and 1880

a. Approved as revised, subject to Commissioner Ramey's comments. The Minutes of Meetings 1876 and 1880 are to be reviewed with Commissioner Haworth.

b. Minutes of the 137th AEC-MLC Conference

Approved, as revised.

2. AEC 580/171 - November 1962 Planning Estimates
AEC 580/169 - Weapons Development Status Report and
AEC 580/170 and AEC 580/172 - Stockpile Composition

Approved, as revised. (Betts)

The Commission requested appropriate revisions in the draft letter to the President. This letter should have Secretary Gilpatric's concurrence. (Betts)

The Chairman requested:

(a) the letter to the Deputy Secretary of Defense be revised to reflect variations from the Deputy Secretary's March 16, 1962 letter. (Betts)

(b) consideration be given to a weapons review. (Betts)

(c) a separate letter be dispatched to Director Designate Gordon of the BOB informing him of prior AEC-DOD arrangements for weapons budgeting. (Abbadessa)

3. AEC 751/332 - Participation of KRB Project in U.S.-EURATOM Joint Reactor Program

Approved. (Wells)

The Commission requested confirmatory information re the method of obtaining competitive bid responses, and if the information obtained is not compatible with proceeding with the paper, the Commission is to be promptly informed. (Wells)

4. AEC 371/32 - Extension of General Electric Contract for Operation of Hanford Works

Approved. (Vinciguerra)

5. AEC 1036/41 - Contract for Supply of Electric Power to Stanford Linear Accelerator

Approved. (Vinciguerra)

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

Deferred. (Tackman)

I will schedule this paper for an Information Meeting after January 1, 1963.

Item of Information

DOD Funding for Pluto Program

cc: Commissioners

report to the New York office and are now hopeful that we can give them an answer on Phase II of the study before January 1st, the deadline for Phase I which has been extended from December 15th. I told them that the Commission would make a decision as soon as possible. I emphasized that the Commission has many factors to consider, such as the availability of the money and the attitude of the Department of the Navy. They went on to tell me that within a few days it will be announced that Allis-Chalmers is going out of the steam turbine business. They want the Commissioners to realize that this does not signify any diminution of interest in the nuclear business. The steam turbine business is simply too competitive, and they can do better by concentrating on other lines. This information is confidential until their announcement.

Thursday, December 20, 1962 - D.C.

At 11 a.m. Haworth, Betts and I met in Bell's office with Bell, Gilpatric, Maxwell Taylor, Gerald Johnson, Kaysen, Wiesner, Staats, Willis Shapley, Schuldt, Vietch and others to discuss BOB's suggestion to cut large numbers of tactical and strategic weapons from the FY 1964 and 1965 builds. This will make possible large power cuts in diffusion plant operation and some cuts in plutonium production. Although the study is not complete, there is general agreement in the amounts and direction this is going. As agreed last spring, the DOD and AEC (McNamara and I) will send a joint letter to the President describing budgetary implications of the 1964 build (and after March 1st a similar letter regarding the 1965 build). We are having trouble with our DMA Staff on this. Delmar Crowson and Stone almost refuse to cooperate on the basis that this transcends AEC's authority.

From 1:30 p.m. to 3 p.m. I attended a meeting of the Federal Council for Science and Technology, where Wiesner, Secretary Freeman, Secretary Udall, Roger Revelle, I, and others discussed a possible Federal program on water resources.

At 3:15 p.m. the Commission met with Donald Alexander (Maritime Administrator) and Edward McCutcheon (Chief of Research and Development, Maritime Administration) to discuss ways and means of saving the follow-on Maritime program, which was cut out of the 1963 and 1964 budgets by BOB, in view of the excellent economic promise and great interest by the shipping industry. We decided to ask BOB if we can reprogram funds to do this ($600,000 in 1963 and $1 million in 1964).

I called Alexander later in the day and told him we feel the Maritime program is important enough to reprogram some money for it, which means we have to reopen the issue with the Bureau of the Budget. I suggested that he write the AEC a strong letter pointing out these new implications--the value of this next stage of nuclear propulsion to the merchant industry--and also pointing out the implications of what would happen to our organization if it were cut off. I would then use this letter as a wedge with the Bureau in telling them how we can reprogram the funds. Alexander said he would be glad to do this.

John McCone called at 4:45 p.m. and said he has read the report of my visit with Kuznetsov in New York last week and noted that Kuznetsov has invited me to go to Moscow. He thinks this would be something for me to consider very seriously and thinks it could be very useful. He said that, if I have no objection, he would like to mention this to the President and tell him he thinks this would be a good thing for me to do. I said I have no objection; however, I did point out that, since this was an oral invitation, we should wait until we have something more formal; furthermore, I would like to wait until the weather is better, say, next April or May.

Helen and I gave our annual cocktail party and buffet supper at home for the Commissioners and their staffs and wives--some 60 people in all.

Friday, December 21, 1962 - Germantown

At 10:35 a.m. I presided over Information Meeting 225 (notes attached). The Commission discussed the White House request to comment on the President's proposal to announce that there will be no atmospheric testing in 1963. We also discussed a proposed letter to Roger Jones (White House staff) on reorganization.

The Commission met in a Regulatory session to hear a debate between Harold Price (against) and Joe Hennessey (for) a mandatory hearing for a mock-up reactor in connection with the Plum Brook reactor. The Commission will make a decision on this tomorrow.

The report of the committee to evaluate U.S. and USSR testing gains (the super-secret Scoville, Haworth, Brown, Wiesner group) was received. The conclusions seem to be that no spectacular, decisive gains were made in the 1961 and 1962 testing programs.

I attended the AERWA Christmas party in the cafeteria, where I gave a short talk along humorous lines (a parody on information meetings) and serious lines (Presidential trip to Los Alamos, the Civilian Nuclear Power Report, the impending SNAP report, etc.). After introducing the Commissioners I spoke optimistically of the future.

A huge snow storm made it necessary to dismiss the employees at 2:30 p.m. I left about 4:15 p.m.

Saturday, December 22, 1962 - D.C.

The Commission met from 10 a.m. to 1:15 p.m. for Meeting 1904 (action summary attached). We discussed a letter (copy attached) to Carl Kaysen that would state our position on the President's announcement that there will be no testing in the atmosphere in 1963. We decided that it would be O.K. but will state what can be done in 1963 and that we should be authorized to make preparations in order to be ready for the 1964 series.

We also will state that the underground and Plowshare series should continue in 1963. The Commission heard both sides of the controversy again over a public hearing on the mock-up reactor and decided to refer the question of whether there should be a hearing to one of our Hearing Boards who will hear evidence in non-public sessions. The Commission also approved new conditions, giving them more leeway and help, for Nuclear Fuel Services' proposal for a private plant.

In the afternoon I went shopping with Lynne, Steve, Dianne and Lynne's friend, Elizabeth Martin, at Woodward & Lothrop, Hechts, etc. After being joined by Peter, we all had dinner at the Hot Shoppes, 14th and G Streets. Helen is suffering from a rather severe sinus condition which kept her in bed.

Allyne Synder came to visit us.

Sunday, December 23, 1962

I worked on my speech for the Cedars of Lebanon dedication on January 11th.

Pete, Lynne and I delivered Christmas gifts to Mildred Cecil and Marie Janinek and went down to Washington to buy chocolates as gifts for Howard Brown, Chris Henderson, Vic Schmidt, Arnie Fritsch and Jim Haddow.

ATOMIC ENERGY COMMISSION

WASHINGTON 25, D.C.

DECL. BY DOE NOV 86

COPY NO. 15

December 21, 1962

INFORMATION MEETING 225

10:35 a.m., Friday, December 21, 1962 - Chairman's Office, A-457

1. Chairman's Meeting with Mr. Roddis, President, Atomic Industrial Forum.

The Chairman reported briefly on his meeting with Mr. Roddis and said that among the matters discussed were:

a) joint meeting of the Forum and Commission (the Commissioners agreed to try for February 21, 1963);
b) Chairman's speech at the recent joint Forum meeting;
c) Chemical Processing Plant;
d) Atomic Industrial Forum symposia on merchant ship program, reactor fueled by plutonium, reactor siting, private ownership of special nuclear material, nuclear power in space, and a closed session to discuss university-laboratory- industrial research. (Mr. Roddis said he hoped the Commissioners could participate in the latter.)

Mr. Roddis commented on the improved relationships between the AEC and industry during the last two years and the good rapport between the Forum and the AEC.

2. Statement in AIF Memorandum Attributed to Mr. Kirk re Snap Program.

To be checked. (GM)

3. Talking Paper for BoB Session Yesterday re Weapons.

To be circulated. (Brown)

4. Case Study of Plutonium Requirements.

In response to the Chairman's request, Mr. Hollingsworth reported that a study will be prepared in conjunction with yesterday's discussion at the Bureau. The Chairman requested that the study include recommendations on production of curium 244 and requested preparation of a letter to the Bureau by the staff on this matter for review with Dr. Haworth. (Baranowski)

5. Weapons Study.

The Chairman alluded to Commissioner Palfrey's recent query re the need for a weapons study and Mr. Hollingsworth reported this matter will be discussed with the Commission shortly. (Betts)

6. Information Meeting, 10:00 a.m., Saturday, December 22, Room 1113-B, D.C. Office.

The following matters will be taken up in the order listed:

a) Elk River Reactor Project, Docket 115-1.
b) AEC-R 76/1 - Public Hearing on Issuance of Operating License for NASA Mock-up Reactor.
c) Meeting with Southwest Atomic Energy Associates.
d) Test planning.
e) Letter to BoB re Maritime Reactor Program.

In connection with item d), Dr. Haworth will discuss this matter with the laboratory directors. (Secy)

7. Letters to the President re FY 1964-65 Stockpile Requirements.

In response to the Chairman's request, Mr. Hollingsworth noted these are in preparation. (Betts)

8. Commissioners' Meeting with Mr. Alexander of the Maritime Administration.

The Chairman noted Mr. Alexander will send a follow-on letter.

9. Chairman's Meeting with Allis-Chalmers Officials.

The Chairman said Mr. Etherington and others had been in to see him and are hopeful about continuing the PM-3A. Mr. Hollingsworth said this matter would be discussed at the meeting on Wednesday, December 26. (GM)

10. Detail of ACRS Staff Member to Joint Committee.

11. Personnel Matter.

In response to the Chairman's comment, Mr. Ink said Personnel will proceed with the promotion. (Tackman)

12. Letter to the BoB re Action on the Physics Building, University of Chicago.

To be prepared by Messrs. Ink and Brown.

13. Commissioner Ramey's Review of Rover Program.

14. AEC 25/233 - Navy Safety Rules.

Approved. (Betts)

15. AEC 696/122 - Sale of Electric Energy by WPPSS Produced from NPR Byproduct Steam.

Approved subject to the Commissioners' comments today. (GC)

16. Contract with Atomics International.

Mr. Hollingsworth reported successful conclusion of negotiations.

17. Personnel and Organizational Changes in Division of Reactor Development.

Mr. Hollingsworth reported to the Commission his decisions on the personnel and organizational changes.

18. Additional Meetings with Utility Groups.

The Commissioners agreed additional meetings should be planned and the Chairman noted that Commissioners Wilson and Ramey are planning a meeting with the Minnesota Power and Light Company group in early January. (Pittman-Secy)

19. General Manager's December 20 Memorandum re Status of Proposed Westinghouse-Southern California Edison Cooperative Arrangement.

The Commissioners agreed the staff should proceed subject to no adverse comment from the Commissioners by tomorrow. (Ink-Pittman)

PRESENT		DISTRIBUTION
Dr. Seaborg	Mr. Hollingsworth	Commissioners
Dr. Wilson	Mr. Ferguson	General Manager
Dr. Haworth	Mr. Ink	General Counsel
Mr. Ramey	Mr. Brown	Secretary
Mr. Palfrey	Mr. McCool	

W. B. McCool
Secretary

Memorandum

TO : R. E. Hollingsworth, Acting General Manager

DATE: December 22, 1962

Approved ✓ R. E. Hollingsworth
Date 12-26-62

FROM : W. B. McCool, Secretary Original signed W. B. McCool

SUBJECT: ACTION SUMMARY OF MEETING 1904, SATURDAY, DECEMBER 22, 1962, 10:10 A.M., ROOM 1113-B, D. C. OFFICE

UNCL. BY DOE NOV 86

SECY:MK

Commission Business

1. AEC 696/1 - Sale of Electric Energy by WPPSS Produced from NPR Byproduct Steam

   Approved. (General Counsel)

2. AEC 25/233 - Navy Safety Rules

   Approved. (Betts)

3. Letter to Mr. Carl Kaysen re Test Planning

   Approved.

4. Letter re STORAX III

   Approved.

5. Letter to the President re FY 1964 and 1965 Budget Readjustments on Weapons

   The Commission requested these letters be prepared for the Commission's review. (Betts) The 1965 ltr. is to be prepared after March 1, 1963

6. Westinghouse-Southern California Edison Cooperative Arrangement

   The Commission confirmed the staff action. (Pittman)

7. AEC 881/48 - Industrial Chemical Reprocessing

   Approved, as revised. (Baranowski)

   The Commission requested that the matter be brought back for further Commission consideration if NFS does not accept the consideration per paragraph 4 f, as revised, in the Appendix to AEC 881/48. (Baranowski)

   The Commission requested revisions in AEC 881/48 in accordance with the discussion at the Meeting. (Baranowski)

8. Commissioner Wilson's December 19, 1962, Memorandum re Meeting With Southwest Atomic Energy Associates

Deferred.

The Commission requested the matter be considered at an Information Meeting scheduled for Wednesday, December 26, 1962. (Secy)

9. Background Material for Press Conference at NRTS

The Chairman requested appropriate background material for his press conference at NRTS. (Clark)

10. Modifications of Agreement with UK

The Chairman requested that the State Department keep the AEC informed. (Wells)

Items of Information

Background Material on NRTS

cc:
Commissioners

901539

DEC 22, 1962

OFFICE DIARY
GLENN T. SEABORG
Chr USAEC, 1961-72
FOLDER-PAGE 24117

Dear Carl,

UNCL. BY DOE
NOV 86

This is in response to your telephone conversation with Dr. Haworth on December 20th, during which you invited Commission comments on the possibility of an early decision and announcement by the President to the effect that the United States will not conduct nuclear weapons tests in the atmosphere during 1963. I have discussed this matter with the Commission, and our position, briefly, is as follows:-

1. The Commission could be prepared to start a useful atmospheric test series by September 1963. One example is weapons development tests for the [redacted] concept - in the high and intermediate yield range. These tests would be made possible by and would incorporate the results of underground tests scheduled for the spring and summer at the Nevada Test Site. It must be recognized that a delay in testing DELE[redacted] devices will introduce commensurate delay in completion of such a development. A list of other significant tests can be provided, should you desire it. In connection with the DELE[redacted] concept, an important factor would be a national decision regarding the development of very high yield weapons and the priority which would be assigned to such a program.

2. Despite a readiness in September, the Commission recognizes that a delay until early 1964 may be found to be in the over-all national interest. In such a case, however, it would be important that our laboratories be authorized to make definite plans and necessary preparations, including procurement, for development and effects testing in the atmosphere in 1964, and that underground nuclear testing continue

CLASSIFICATION CANCELLED
WITH DELETIONS
BY AUTHORITY OF DOE/OC
REVIEWER DATE
L. Sefranka 6/19/86

during 1963 with increasing yields. These contained tests might involve yields up to one-half megaton or more. Such a program of preparation during the non-testing period in 1963 would also protect against our being caught unprepared by a new Soviet test series, as we were in 1961. It will be recalled that in 1961 a delay of eight months was experienced before really meaningful atmospheric testing could be resumed.

3. We suggest that any announcement should specifically mention that experiments to develop peaceful applications of nuclear explosives will be carried out during 1963, and that these will include nuclear excavation experiments that break the surface but do not release significant amounts of radioactivity.

The Commission feels strongly that any announcement of a plan not to conduct atmospheric tests in 1963 should be consistent with the arrangements described above. We would appreciate an opportunity to comment on a public statement before ~~it is issued.~~

Cordially,

(Signed) Glenn T. Seaborg

Glenn T. Seaborg

Mr. Carl Kaysen
Deputy Special Assistant to the President
for National Security Affairs
The White House

Monday, December 24, 1962 - HOLIDAY

Pete, Lynne and I went shopping at Woodward & Lothrop, Hechts, the Record Center, the Ski Center and elsewhere to buy Christmas presents for the whole family and ski equipment for Pete's and Lynne's Ishpeming-Marquette trip.

We had our traditional Christmas Eve present-opening session and I took movies.

Tuesday, December 25, 1962 - CHRISTMAS DAY

We had the traditional opening of presents from Santa Claus and I took movies. I recorded some of Dianne's conversation on the tape recorder.

We phoned my mother in South Gate to extend Christmas greetings.

Allyne Snyder finished her visit.

We had our Christmas dinner at 3 p.m. and I recorded it on tape.

I took Pete and Lynne to Union Station, where, along with Lynne's friend, Sally Doyle, they caught the 5 p.m. Columbian (B&O) to Chicago. They will travel from here to Negaunee on the "400" and will be met by Bill Cuyler. They will stay at home of the Cuylers for a skiing vacation in Marquette, Ishpeming, etc.

The biggest snow storm in the history of the Washington Weather Bureau occurred this morning and early afternoon. I took some color and black and white pictures.

Wednesday, December 26, 1962 - D.C.

At 10:15 a.m. I presided over Information Meeting 226. The Commission approved a proposed announcement of Soviet test activities. I said the letter to the Department of Defense has been signed and will be dispatched today. I read Mr. Kaysen's memorandum of December 20th relative to his recent meeting with me, Haworth and General Betts. It was agreed that Allis-Chalmers should be requested to complete a conceptual design of a reactor for the Byrd Station at a cost of $500,000. Hollingsworth said the proposed letter to BOB about curium 244 will be reviewed with Haworth. I requested that Commissioners Ramey and Palfrey be the

focal point for special attention to matters involving NATO, including those resulting from the recent Nassau meeting. The Commission Order on Elk River initial decision will be considered Thursday afternoon, December 27th. Haworth said he will review the draft Federal Radiation Council Statement with the other Commissioners. The NASA Mock-Up Reactor will be discussed Thursday, December 27th. Commissioner Ramey plans to join the group touring Bendix on January 24th and Wilson may also join the tour. Proposed responses to the questions raised by Southwest Atomic Energy Associates (SAEA) for use at the meeting with SAEA representatives on December 27th were discussed.

At 11:45 a.m. I met with Fred de Hoffmann (President, General Atomic), who has just returned from a trip to Germany, where he learned that Siegfried Balke was unexpectedly replaced as Minister for Atomic Energy by a man named Hans Lenz, a non-scientist. This was part of the Adenauer-Strauss machinations. He said that, in connection with possible U.S. support apparently being considered by the staff for a German pebble-bed reactor, U.S. support there might be misinterpreted by the Germans and react adversely on the future of the HTGR in Germany. He also warned me in connection with the negotiations which apparently are pending on the Dragon inter-change agreement with EURATOM.

He has the impression that EURATOM is trying to get all it can out of the U.S. and that we should be cautious. We discussed the high-temperature, gas-cooled reactor. He thinks it would be consistent with the Commission's report on civilian nuclear power to provide some long-range help, perhaps in collaboration with utilities and manufacturers for advanced converter types of this sort. He mentioned that the support given by the staff for a study of a 1,000 Mwe HTGR-type reactor was a tremendous boost to General Atomic.

I sent a response (copy attached) to the GAC report of their 81st meeting.

Secretary Rusk called to say he hopes to consult with AEC regarding implementation of the Kennedy-MacMillan Nassau agreements, and asked me to designate someone who could give it full time for the next two or three weeks. I said I think I will name Commissioner Ramey. A meeting will be held in his office on Friday and will be primarily a Stage I progress report on where we are at present.

I signed a letter to T. C. Runion, President of Nuclear Fuel Services, outlining the basis on which we have decided to go ahead in cooperation with their plan to build a fuel reprocessing plant.

I also sent a letter to BOB asking permission to reprogram $600,000 in 1963 and $1 million in 1964 to carry on the follow-on maritime nuclear ship program (copy attached).

I had lunch with John Finney (New York Times) at the University Club. We discussed the public relations aspects of the AEC, the matter of fees for universities, the Gilliland PSAC Panel Report and the Administration's possible implementation of this. He mentioned that the civilian nuclear power report was timely and very well received and said that the question now will be whether BOB implements it.

Accompanied by Dr. Haworth, Arnie Fritsch and Allen Vander Weyden, I flew in an Air Force Jetstar from Andrews Air Force Base to Idaho Falls (leaving at 5:15 p.m. and arriving at 9:40 p.m.). We were met by Hugo Eskildson (Manager, Idaho Operations Office) and W. L. Ginkel (Deputy Manager, Idaho Operations Office).

We spent the night at the Flamingo Motel in Idaho Falls.

DEC 26 1962

UNCL. BY DOE
NOV 86

Dear Mr. [illegible]:

Report rec'd on 10/10

Thank you for your report of the 61st meeting of the General Advisory Committee. Our comments on the items discussed in your letter are as follows:

(1) Weapons

In a letter of February 16, 1962, reporting on its meeting of January 29, 30, and 31, 1962, the GAC expressed an opinion that the weapons laboratories should begin work immediately on the design of a clean 10 megaton bomb or warhead and that new studies of possible uses of such weapons should be undertaken. GAC interest in a high yield development program was reiterated in a letter to Chairman Seaborg of July 27, 1962, reporting on the GAC's July 9-11, 1962 meeting.

The AEC has now sent a letter to the Secretary of Defense setting forth the AEC's capabilities to design, develop, and fabricate high yield bombs and warheads. The letter requested a re-evaluation of the DoD's requirements for such weapons and also recommended a joint AEC-DoD letter to the President raising the question of desirability of development and test of very high yield weapons.

This matter will be discussed with you at the January GAC meeting.

(2) Education and Training

We appreciate the Committee's expression of confidence in the new Division of Nuclear Education and Training (DNET). The Commission believes that this program is an essential part of our responsibilities.

(3) University-National Laboratory Relations

Relative to the GAC comments regarding relationships between the universities and the AEC national laboratories, the DNET is taking several steps to further implement the over-all policies as set forth in the AEC report to the JCAE, "The Future Role of the AEC Laboratories (January 1960)," which was reemphasized by the GAC's report of its October 5, 1962

meeting. Dr. Norman Hilberry is currently engaged in making a survey for DMET of the many facets of the educational activities of the various major AEC sites. When this is finished, (estimated January 1963) a summary will be prepared and then discussed with the various laboratory directors to determine what programs seem to be worthy of strengthening. No attempt will be made to establish identical programs as each laboratory has its own unique atmosphere and community interests which influence its individual program.

The Oak Ridge Institute of Nuclear Studies has announced that one of its major efforts in the coming year will be to strengthen the Oak Ridge Graduate Fellowship Program and to encourage participation by more universities. Within this framework, the University of Tennessee is preparing a proposal to a Foundation to request financial support of a broad Ph.D. program in science and engineering. The AEC and ORINS have had many discussions on this subject and it is agreed that the geographical proximity of University of Tennessee to ORNL logically means that a major portion of the Oak Ridge Graduate Fellowships will undoubtedly be held by University of Tennessee students. The University clearly understands that the AEC will not make firm long range commitments to the University, nor will ORINS-ORNL show preference for University of Tennessee students in the fellowship selection process.

Relative to the GAC comments regarding the proposed University of Chicago campus at Argonne, the proposal discussed at the GAC meeting has been officially withdrawn. Dr. Beadle, President of the University of Chicago, invited the Executive Committee of ARU to meet with him on December 19. Dr. Poor was invited to attend and did so.

The Association of Rocky Mountain Universities is beginning to take a greater interest in possible participation in AEC programs, especially at LASL and NRTS. A subcommittee of ARMU is meeting this week to begin planning specific programs; both DMMT and the Idaho Operations Office will participate in the discussions.

The University of Washington recently indicated that they are working with several other universities on a proposal to DMMT for a joint program at the Hanford facility. They were specifically encouraged by the recent AEC announcement that "AEC will be receptive to overtures for a grouping of the universities in the Northwest region for conduct of a cooperative program with Hanford Laboratory....."

(4) Civil Defense

With respect to the Committee's recommendation on ARU activities in the civil defense domain, Dr. C. L. Dunham and staff have had two discussion

with Dr. W. E. Strope, who is Director of Research for the Office of Civil Defense. The discussions followed an exchange of letters between Dr. Dunham and Dr. Strope and relate to our efforts to establish a close working relationship between the two organizations. Another meeting was held December and at that time a proposal submitted by Dr. Alvin M. Weinberg to Dr. Dunham was discussed with the OCD representatives. Dr. Weinberg proposed that ORNL be assigned responsibility for all technical and scientific aspects of civil defense, leading to the establishment of a new project or division at the laboratory with a staff of 100 to 150 technical personnel and an annual budget of three to five million dollars. Subsequent discussions with the Assistant Secretary of Defense (Civil Defense) will probably be arranged to further explore the OCD reactionto the proposal. Meanwhile steps are being taken for Commission policy consideration of these matters with particular reference to the role of the National Laboratories, and you will be kept informed as to these developments.

(5) Reactor Development

Detailed program reviews are in progress to reflect such changes as may be warranted in the Commission's program as a result of the philosophy and policies set forth in the Civilian Nuclear Power report to the President We will, of course, be appreciative of any comments you have on the final version of the report. As you may know, a review and report on the SNAP program will also be undertaken.

(6) High Energy Accelerator Program

We will be happy to arrange for a briefing of the General Advisory Committee on the high energy physics program including the current and anticipated proposals for design studies on new accelerators. The special Panel now studying the entire high energy physics program is expected to make its preliminary report soon. If this report is available in time for the January meeting, we hope that the full committee will be able to give us your valued advice.

(7) Controlled Thermonuclear Program

The Commissioners and staff have given considerable study to the recommendations of the General Advisory Committee on the Controlled Thermonuclear Research Program and are prepared to discuss this subject with the General Advisory Committee at the next meeting. In particular, I would suggest that it would be helpful to review our plan for action on the various recommendations.

82nd GAC Meeting

The Division of Military Application has arranged through the Military Liaison Committee for a briefing on ICBM vulnerability to be presented to the GAC by the Advanced Research Projects Agency on January 8.

Dr. English and the program division directors who report to him will be available on the afternoon of January 7 for any informal discussions which the General Advisory Committee may wish to have with them.

Other Matters

During our meeting with you, we will take the opportunity to inform you as to the status of our budget request for fiscal year 1964.

Sincerely,

Chairman

Dr. Manson Benedict, Chairman
General Advisory Committee to the
U.S. Atomic Energy Commission

7 015

COPY

December 26, 1962

UNCL. BY DOE
NOV 86

Dear Elmer,

The Commission, within the past few days, has come into possession of information on the application of nuclear reactors to the maritime program which we feel affects national policy. Despite the fact that decisions on the 1963 and 1964 budgets probably have been finalized, we feel the implications of this information are such that it should be made available to you for your guidance.

The Maritime Administration has informed the Commission of substantial new interest on the part of the shipping industry in nuclear-powered surface ships. In a meeting on December 13, 1962, representatives of the U.S. ship operating lines agreed that a trend toward increased speed, as one means of meeting the growing competition of foreign flag carriers, is constained by the large fuel requirements of conventional plants. It is the feeling of the industry that the greater initial cost of a nuclear vessel will be offset by fuel savings over the life of the vessel.

These new evaluations take into account more compact nuclear power plants; however, several shipping companies are now showing specific interest in several plant design concepts.

Our recent discussions with the Maritime Administration, and their discussions with the shipping industry, have brought into sharper focus the full impact of the decisions on the maritime program in the FY 1964 budget and the effect of the impounding of FY 1963 funds. It would, of course, have been more timely to have presented the above information at the time our budgets were submitted and defended; however, we were not in possession of it at that time. Nevertheless, we feel that you should understand, even at this late hour, that these budget decisions would have the effect of requiring that all work on nuclear propulsion for maritime application beyond the N.S. SAVANNAH be completely interrupted for some indefinite period. This interruption is particularly disturbing in that it comes at a time when these new evaluations of the potential importance of nuclear power to the U.S. maritime industry indicate significant promise.

COPY

We are seriously concerned over the fact that complete interruption now of any maritime program looking beyond the N.S. SAVANNAH will cause loss of key people and loss of critical development time. These losses may well be irrecoverable, or recoverable only at a substantial additional cost in the future.

Accordingly, in light of the new developments in the maritime program, we are proposing that - within the funds allowed for FY 1963 and FY 1964 as approved for the FY 1964 budget - we be allowed to continue work on advanced maritime reactors. The 630-A Program would be continued at a level of $600,000 for the balance of this Fiscal Year in order to complete planned critical experiments. In addition, $1 million of FY 1964 funds would be used for continuing a program involving evaluation of the 630-A concept and advanced water reactors such as the Babcock & Wilcox and Combustion Engineering maritime concepts.

Your prompt approval of this plan would be appreciated.

Attached for your consideration in this matter is a letter from Administrator Alexander, dated December 26, 1962, setting forth in greater detail the Maritime Administration's views.

Sincerely yours,

/S/

Glenn T. Seaborg

Honorable Elmer B. Staats
Acting Director
Bureau of the Budget

Enclosure
Ltr fr Administrator Alexander dtd 12/26/62

Thursday, December 27, 1962 - Idaho Falls

We had breakfast at the Flamingo Motel with Eskildson and Ginkel. We visited the National Reactor Testing Station--EBR II, the ML-1, the Aerojet-General SPERT area, EBR-I, EOCR, OMRE and Borax V.

We had lunch at the Central Facilities Cafe with Fred Thalgott (Associate Director, Argonne National Labaoratory), William Wayne (Aerojet General Nucleonics), D. C. Spencer (Westinghouse), Paul Bissonette (G.E.), J. W. Morfitt (G.E.), R. P. Varnes (A.I.), Richard Doan (Phillips Petroleum), J. P. Lyon (Phillips Petroleum), M. H. Bartz (Phillips Petroleum), Warren Nyer (Phillips Petroleum), A. L. Ayers (Phillips Petroleum) and Eskildson, Ginkel, J. F. Kaufmann and S. B. Boivin of the Idaho Operations Office.

We then visited the MTR, ETR, ATR building and the Chemical Plant (shown us by Arnold Ayers) and other areas.

I attended a smorgasbord dinner at the Eskildsons with about a dozen members of the Idaho Operations Office.

I then gave a talk in the Idaho Falls Civic Auditorium, sponsored by the Idaho Falls Technical Council, entitled, "Nuclear Energy in Space." I was introduced by Elton Turk (Chairman of the Council), who worked in my chemistry section at the Met Lab during World War II. Also on the stage with us were J. H. Schraidt and C. E. Stevensen.

Friday, December 28, 1962 - Idaho Falls - Washington, D.C.

I was joined by Rickover and Harry Mandel and A. D. Grider (Pittsburgh Naval Reactors Office). We visited the Naval Reactors Facility, the Expended Fuel Facility, and the Sub-Thermal Reactor.

After a snack at the NRF, we visited the Test Area North (the old G.E. ANP Facility), the Low Power Test Facility (shown us by John Morfitt), the Central Maintenance Area (hot labs, shops--shown us by Mr. Bartz--an amazingly large area) the ANP test reactors, etc.

I went back to the Idaho Falls Airport, where, after lunch, I held a press conference with many newpaper, TV and radio station representatives present. Among those present were J. Robert Brady (Post Register), Carl Hayden (Salt Lake Tribune), Hughey (KIFI-TV), Richardson (KID-TV). Clarke (KTEE-Radio), Fletcher (KIFI-Radio), Arthur McGinn (UPI) and J. Robb Brady (AP).

I flew via Hill Field in Ogden back to Andrews Air Force Base on the Jetstar, leaving at 3:15 p.m. and arriving at 10:30 p.m.

Saturday, December 29, 1962 - D.C.

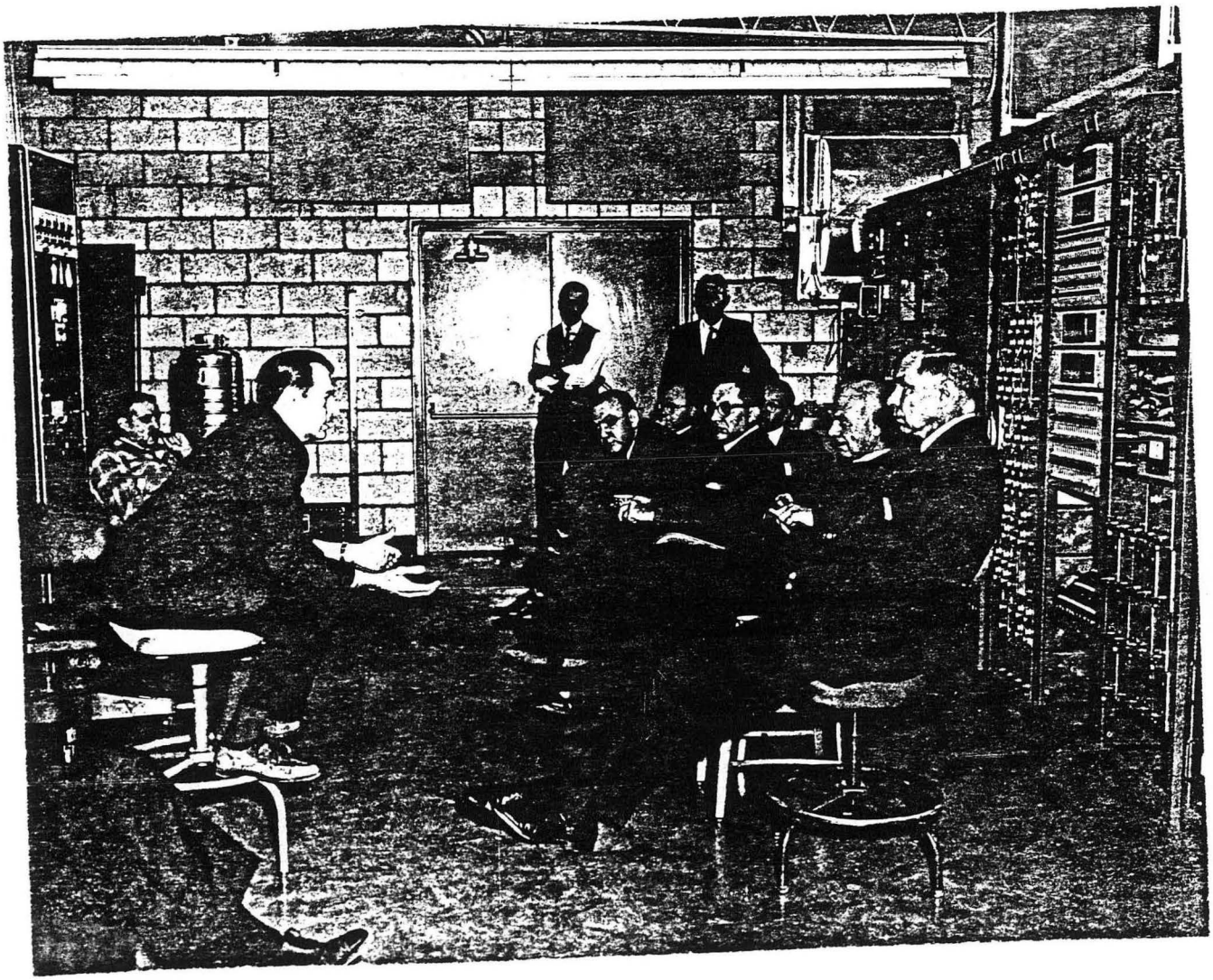
I worked in the office until 3:30 p.m. cleaning up correspondence, AEC memos, etc.

I also worked on papers and read journals at home.

Sunday, December 30, 1962

I read AEC papers and worked on my article, "Synthetic Elements III," for publication in the Scientific American. I also worked on the speech I will give at Cedars of Lebanon on January 11th.

Seaborg's Tour of National Reactor Testing Station
Idaho Falls, Idaho, December 27, 1962

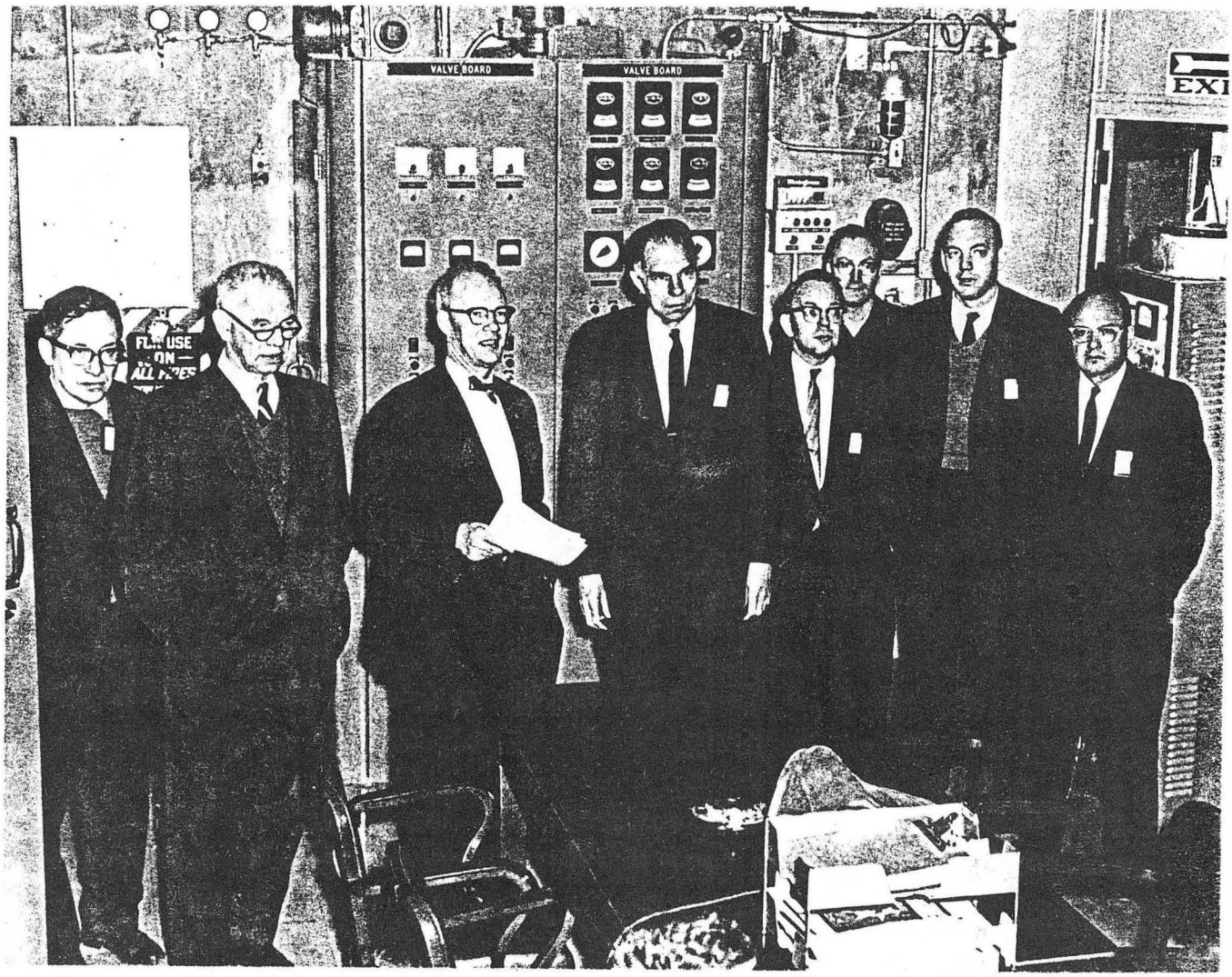


SPECIAL POWER EXCURSION REACTOR TEST NO. IV

1. 2. 3. 4. 5. 6. 7. 8. 9. 10.

1. F. Schroeder, Manager SPERT Projects, PPCo.
2. W. E. Nyer, Manager Reactor Projects, PPCo.
3. J. C. Haire, Deputy Manager SPERT Projects, PPCo.
4. J. P. Lyon, Deputy Manager Phillips Petroleum Co.
5. W. L. Ginkel, Deputy Manager
6. Dr. A. R. Fritsch
7. H. N. Eskildson, Manager
8. Dr. Allen J. Vander Weyden
9. Commissioner L. J. Haworth
10. Seaborg

Seaborg's Tour of National Reactor Testing Station
Idaho Falls, Idaho, December 27, 1962



EBR-I CONTROL ROOM

L to R. Allen J. Vander Weyden, L. J. Haworth, F. W. Thalgott (Associate Director ANL, Idaho Division), Seaborg, H. N. Eskildson (Manager), F. D. McGinnis (Project Supervisor, EBR-I, ANL, Idaho Division), A. R. Fritsch, W. L. Ginkel (Deputy Manager)

Seaborg's visit to Naval Reactor Facility, Arco, Idaho
December 28, 1962

Foreground - L to R: A. A. Simmons, Westinghous Manager ECF, explaining ECF water Pit activities to Seaborg.

Background - L to R: N. M. Cole, Naval Reactors; L. J. Haworth; I. H. Mandil, Chief Reactor Engineering Branch, Naval Reactors; Allen J. Vander Weyden, Assistant Director, Reactor Development Division, AEC; Admiral H. G. Rickover, Manager Naval Reactors; A. Fritsch, Technical Assistant to Chairman of AEC; A. D. Grider, Idaho Branch Office

Monday, December 31, 1962 - D.C.

I met with Colonel Elwood Douthett (who obtained his Ph.D. with me at Berkeley) to discuss the philosophy behind his taking charge of the SNAP-50 program which, as the result of the agreement signed by McNamara, Webb and myself, is centered in AEC. I emphasized the importance of a unified program, i.e., the reactor and conversion equipment is to be developed as a unit without artificial line of demarcation.

The meeting that Secretary Rusk told me he was going to hold to discuss the Kennedy-MacMillan Nassau agreement was cancelled; we don't have an explanation yet.

At 10:15 a.m. I presided over Information Meeting 227 (notes attached). We discussed an offer by Orville Bell, a Nevada developer, to build a community suitable for the Nevada Test Site and the Reactor Development Station. We also discussed a letter from Alex Radin of APPA (copy of this and following letters attached) concerning misleading and erroneous statements contained in the EEI booklet, "Electric Power from the Atom," which we sent to them.

I attended the annual Egg Nog party at the Metropolitan Club from 1 p.m. to 2 p.m.

At 2:45 p.m. Harry Smyth came in to discuss his future as a U.S. representative to the IAEA and his related work in the State Department. He is on full leave of absence from Princeton for this fall term ending February 1, 1963, and must decide whether he continues on this basis. I told him that we very much want him to stay on as U.S. representative to the Agency, and as a member of the Board of Directors. I said that to replace him would constitute a real problem for us. One possibility is for him to drop the extra work in the State Department and continue as he was before he went on leave from Princeton this term. He said that the decision would be up to him, and that he will let us know.

Helen, Dianne, Eric, Steve, Dave and I stayed up at home to wait the old year out. We watched Guy Lombardo and the activity at Times Square on TV. (Peter and Lynne are still in Marquette).

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

DECL. BY DOE
NOV 86

COPY NO. 11

December 31, 1962

INFORMATION MEETING 227

10:15 a.m., Monday, December 31, 1962 - Chairman's Office, D. C.

1. Fiscal Year 1964 Budget

The Chairman noted receipt of a letter dated December 27 containing the budget approved by the President for FY 64.

2. Minute of December 20 Meeting Concerning Weapons Requirements

The Chairman read and signed the reply to the Minute of December 20 meeting at the Bureau of the Budget relative to weapons requirements.

3. Testing

Commissioner Haworth reported he had given to Carl Kaysen the information requested on past test activities.

4. Statement by Dr. Van Allen

Commissioner Haworth was requested to contact Dr. Weisner relative to issuance of a statement.

5. Trip to NRTS

6. Proposed Meeting on Nassau Agreement

The Chairman said he would attempt to determine the over-all framework within which the AEC would be involved. (Henderson)

7. Site for Nevada Community

The proposal from Orval Bell should be thoroughly evaluated. The water supply for a proposed new community should also be thoroughly investigated. (Bloch)

8. AEC Policy on Isotopes

Referring to the letter of December 21 from Marvin G. Schorr, President of Technical Operations, the Chairman requested a review of Dr. Schorr's statement about the lack of adequate irradiation facilities. He also requested a review of the Commission's full ~~consideration~~ cost recovery policy regarding isotopes. (Aebersold)

9. Euratom Interpretation of U.S. Position on Organic Coolants

The Chairman requested the draft letters to the Euratom countries be revised as discussed for early dispatch. (Wells)

10. Meeting with Dr. DeHoffmann

The Chairman reported on his conversations with Dr. DeHoffmann.

11. Negotiations with Nuclear Fuel Services, Inc.

The General Manager reviewed the progress of negotiations to date.

12. Chairman's Meeting with John Finney

The Chairman reported the suggestions by Mr. Finney for improving the AEC public relations operations and requested they be considered. (Ink)

√ 13. Letter from Alex Radin of American Public Power Association

An early response should be prepared. (GM)

14. Commission AEC Liaison at Classified Location of OEM

It was agreed that Dr. Haworth be designated the Commission representative at the classified location.

15. Cost Budget Report

General Luedecke discussed those items wherein expenditures appeared to be below the planned level.

16. MLC Trip of January 22 - 24, 1963

It was noted Mr. Ramey would join the MLC group for the tour of Bendix, and that Chairman Seaborg and Dr. Wilson may also go.

17. Meeting with Southwestern Atomic Energy Associates

Commissioner Wilson reported on the meeting held Thursday, December 27 and said the SAEA representatives were now more appreciative of the advantages of the NRTS for their facility.

18. Commissioner Ramey's Visit to Westinghouse Astra-Nuclear Laboratory

Commissioner Ramey related the extensive mechanical testing planned for the KIWI and NERVA projects and Westinghouse's views regarding re-design of KIWI and NERVA.

19. Leasing of Heavy Water Abroad

It was agreed that the lease of heavy water for the "initial inventory" included the leasing of sufficient heavy water for use while the "initial inventory" was being purified. (Wells)

20. N.S. SAVANNAH Trip to Honolulu

The General Manager reported the "scrams" due to electrical problems. The Chairman requested that the weekly operational reports on the N.S. SAVANNAH be checked. (Ink)

21. Letter of December 26 from the Maritime Administrator regarding Merchant Ship Reactors

The General Manager said he would prepare a factual presentation for submission to the JCAE. (Pittman)

22. Visit of Nevada Legislators to NTS

A briefing will be arranged at Mercury and the legislators will be given a trip through the ROVER facility. Mr. Pierre Salinger will be advised. (Ink)

23. Public Health Service Report on Birth and Population Control

Mr. Ink said the subject report contained references to AEC contributions, but that the AEC reports cited were prepared for other purposes and had been found useful for the report in question. In response to any queries, it should be made clear that AEC was not involved in any birth control studies. (Ink)

PRESENT		DISTRIBUTION
Dr. Seaborg	Gen. Luedecke	Commissioners
Dr. Wilson	Mr. Ink	General Manager
Dr. Haworth	Mr. Henderson	General Counsel
Mr. Ramey	Mr. Hennessey	Secretary
Mr. Palfrey	Mr. Anamosa	

Harold D. Anamosa
Acting Secretary

DS FILE

AMERICAN PUBLIC POWER ASSOCIATION
919 EIGHTEENTH STREET NW WASHINGTON 6 DC
phone: 296-4215

OFFICERS
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J. Dillon Kennedy, First Vice President
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Department of Water and Power
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Assistant Office, Imperial Irrigation District
El Centro, California
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Manager, Crisp County Power Commission
Cordele, Georgia
MERLE SMEDBERG
Superintendent, Board of Public Utilities
Jamestown, New York
RAFAEL V. URRUTIA
Executive Director
Puerto Rico Water Resources Authority
San Juan, Puerto Rico
JOHN E. WALTERS
General Manager, Electric Division
Wallingford, Connecticut
GLEN V. YARGER
Manager, Spencer Municipal Utilities
Spencer, Iowa

AFFILIATES
Arizona Municipal Power Users' Assn.
California Municipal Utilities Assn.
Central Services Assn.
Colorado River Basin Consumers Power, Inc.
Colorado Rural Electric Assn.
Florida Municipal Utilities Assn.
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Wisconsin Municipal Utilities Assn.

December 19, 1962

UNCL. BY DOE
NOV 96

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

Dear Mr. Seaborg:

Our office had reason on two occasions recently to request from AEC packets of materials containing general information on the peaceful use of atomic energy. In each instance there was included a copy of the booklet "Electric Power from the Atom" published by the Edison Electric Institute, an association of private power companies.

This 29-page publication contains a number of misleading and erroneous statements. For instance, it states that, "The electric power industry, its manufacturers and suppliers, the Atomic Energy Commission and others are undertaking extensive research and development programs, involving expenditures of hundreds of millions of dollars, that are aimed at making atomic energy a practicable source of fuel." The "horse and rabbit stew" nature of these programs is ignored. The fact is, of course, that the programs discussed are financed largely by the AEC. In its report to the President on November 20, 1962, AEC noted that:

> To date, the Commission has spent approximately $1.275 billion specifically on the civilian power program, including $275 million for the development, construction and operation of Commission-owned reactors on utility grids, and $37 million for development assistance on utility-owned installations. The present annual rate of expenditure is approximately $200 million. During the past several years industry has spent approximately $500 million, mostly for plant construction but also for laboratory and other development facilities and for development work.

These figures on AEC expenditures do not include the additional billions spent by the Federal Government on the huge facilities and extensive research which have sustained the atomic energy program in general and make an atomic power

program possible.

You will recall that on January 18, 1962, EEI sent to Rep. Wilbur Mills, Chairman of the House Ways and Means Committee, a letter urging a 8% investment tax credit for private power companies. Part of the EEI justification for this subsidy was the argument that the tax cut would more rapidly advance the advent of competitive nuclear power.

As you know, private power companies have received major monetary benefits from fast tax writeoffs and "liberalized" depreciation in the past; by the end of 1962, the companies will have acquired an estimated $1.7 billion in tax savings representing interest-free capital contributed by consumers, and the "stockpile" is growing at the rate of about $200 million a year. The additional 3% credit finally granted these utilities by Congress this year means an additional cut in Federal income taxes of about $100 million a year.

In view of these heavy direct and indirect subsidies, it is somewhat suprising to read the EEI booklet's statement that:

> In the development of electric power, the United States, operating under the stimulus of the free enterprise system, has achieved undisputed world leadership in the production and utilization of electricity. Now with atomic energy, the electric power industry and its manufacturers and suppliers are undertaking extensive research and development programs involving expenditures of hundreds of millions of dollars to speed the day when benefits of atomic power can be brought to the American people.

When the booklet cites the 16 atomic power plants and 11 major research, development and study projects in which private power companies are "participating", it fails to include pertinent detail. For example, of "Plants in Operation" listed in an appendix, one involves the Shippingport reactor developed by the Federal Government, and the other two depend on experimental reactors owned by General Electric and AEC.

A statement that, "Duquesne Light Company began distribution of electricity from a large-scale atomic power plant to its customers in Western Pennsylvania in late 1957" is unqualified by any reference to the role of the Federal government in this project. Yet here the reactor and the research and development program was financed almost wholly by the taxpayers, while Duquesne contributed $5 million toward reactor costs, furnished the site and turbine-generator, pays operating and steam costs, operates the plant as an AEC contractor and markets the power.

No mention is made anywhere in the booklet of Federal aids to nuclear power such as plutonium buy-back at premium prices, low-cost Government liability insurance, spent fuel reprocessing and radioactive waste storage at low government prices, and enriched uranium fuel prices based upon the low-cost power produced by TVA and by private plants underwritten by Federal contracts. Nor is it noted that all of the large power company plants built, underway and planned are based primarily upon technology developed by the AEC at Hanford, Shippingport, Argonne National Laboratory and other public installations, and that all depend upon government assistance in one form or another.

The description of atomic power projects in the EEI booklet asserts that, "The construction projects and various research, development and study undertakings involve ten different reactor concepts, thus assuring a very broad nuclear power program. Exploring and improving the use of atomic energy as a power source has become a part of the everyday activities of the electric power industry." The impression left by these statements is that the private power companies have planned and coordinated our atomic energy program while the fact of the matter is that the scope and direction of nuclear power progress has been and is largely directed by AEC.

EEI predictions contained in this booklet have not stood the test of time. Schedules quoted as of May, 1959, have proved to be illfounded. Noting three atomic power plants--only one of which can be classified as central station electric--in operation, EEI predicts "12 more will be in operation by 1962". But three years later, only two additional large-plant prototypes, and two new electric power experimental reactors were listed by AEC as "operable". The EEI forecast, which might have been simply labeled optimistic, is today out-dated and inaccurate.

The EEI booklet states that, "Reflecting past improvements in generating efficiencies, as well as other factors, the average price of residential electricity has been going down steadily throughout the history of the electric industry." However, the Federal Power Commission reported this year in its annual study of typical electric bills that "the trend of charges for all classes of service has been generally upward during the past decade" despite rate reductions by a number of utilities--including many publicly owned systems. Declared the FPC: "The trend in average residential bills as shown in figure 1 indicates that prior to 1947 there was a steady downward movement in the level of rates for residential service. Subsequently, however, the downward trend was arrested, and an upward movement in the averages has continued since 1951." A table and a chart depicting this trend was included in the 1962 FPC publication "Typical Electric Bills" and a copy of these presentations is enclosed.

A large portion of the EEI booklet is devoted to promotion of the aims of private power companies and their organizations. For instance, emphasis is placed on tax payments by electric companies. The thought is continually developed that the United States has available an abundance of electric energy. Both of these points are variations on the theme of the private power companies' national anti-public power magazine advertising campaign, the central thrust of which is aimed at killing or cripping the Federal government's power program.

In addition to laying groundwork for the more general propaganda work carried out through other private power organizations, EEI in this booklet makes a specific sales pitch for its own activities. A section of the publication describes EEI's "Technical Appraisal Task Force on Nuclear Power" and informs readers that findings of this "distinguished group of technical experts"are available "not only to member companies of the Edison Electric Institute, but also to any other organizations interested in the development of economic atomic power."

It strikes me as highly inappropriate for AEC to distribute at taxpayer expense a booklet which downgrades and distorts the Federal government's role in the growth of nuclear power while simultaneously promoting the views of special interests who seek subsidies from AEC and Congress for commercial benefit.

Dissemination of the booklet is particularly distressing in light of the fact that it is sent as part of a collection of publications on peaceful use of atomic energy to students and others who possess no way of sifting truth from fiction or placing EEI assertions in proper perspective. By incorporating it into a group of other materials--all of which appear to be AEC documents or reprints from popular general news publications--AEC gives some degreee of sanction to the EEI position. Yet this same private power company organization frequently opposes AEC actions, as witness the attack on the Hanford generating facilities which were recommended by the Commission and supported by the President.

I urge that the AEC terminate the distribution of this EEI booklet as inappropriate and not in the public interest.

Sincerely,

Alex Radin

Alex Radin

AR:jh

Enclosure

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

DC FILE

JAN 22 1963

UNCL. BY DOE
NOV 86

Dear Mr. Radin:

Thank you for your letter of December 19, 1962, regarding AEC distribution of the booklet Electric Power from the Atom published by the Edison Electric Institute. It is one of several privately-produced booklets and pamphlets that the AEC has been using to answer requests for information on the peaceful uses of atomic energy until such time as publications on the subject can be prepared by AEC.

Within the last year the AEC initiated its own popular level series - Understanding the Atom. Three booklets (enclosed) in this series have already been published and at least a dozen more are in preparation. A manuscript for a booklet on power reactors is scheduled to go to press this month. It should not be necessary for us to continue to distribute booklets, such as Electric Power from the Atom, on a broad basis after our booklet on power reactors is available. Although there could be cases when it may be necessary to send out privately-produced booklets or pamphlets, it is hoped that eventually we will be in a position to answer the majority of requests with AEC publications.

It is perhaps inevitable that popular level publications on so vast and complicated a subject as atomic energy will reflect the viewpoints of their sponsoring organizations. One of the reasons we have distributed such publications was that the volume and diversity of requests from students, teachers and the general public have grown to the point where existing AEC materials are not always adequate, and individually written replies are not feasible. Distribution by the AEC of non-AEC pamphlets does not in itself, however, imply that the views expressed in the pamphlets are those

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of the Commission. We make every effort to assure the presentations in each of our publications, such as our Understanding the Atom booklets, are as objective as possible.

I want to assure you that the comments made in your letter are appreciated.

Sincerely yours,

(Signed) Glenn T. [illegible]

Chairman

Mr. Alex Radin
General Manager
American Public Power Association
919 Eighteenth Street, N.W.
Washington 6, D. C.

Enclosures:
1 copy "Careers in Atomic Energy"
1 copy "Power from Isotopes"
1 copy "Atoms in Agriculture"

AMERICAN PUBLIC POWER ASSOCIATION

919 EIGHTEENTH STREET NW WASHINGTON 6, DC phone: 296-4215

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J. Dillon Kennedy, First Vice President
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Puerto Rico Water Resources Authority
San Juan, Puerto Rico
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Wallingford, Connecticut
GLEN V. YARGER
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AFFILIATES:

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Missouri Assn. of Municipal Utilities
Municipal Electric Assn. of Massachusetts
Nebraska Utilities Soc., League of Municipalities
Municipal Electric Utilities Assn. of N. Y. State
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Tri-State Generation and Transmission Assn., Inc.
Virginia Municipal Electric Power Assn.

February 5, 1963

UNCL. BY DOE
NOV 86

SJS 2/7/63

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

Dear Dr. Seaborg:

Thank you for your letter of Jan. 22 concerning AEC distribution of the booklet "Electric Power from the Atom" published by the Edison Electric Institute. I am pleased to learn that the Commission is preparing its own publication on power reactors to replace the EEI brochure for dissemination as part of AEC's public information program. I believe this will be considerably more appropriate than the Commission's distribution of materials designed to advance any special interests.

I hope that when your new booklet comes off the press that you will send us a copy for our information. Note

Sincerely,

Alex Radin

Alex Radin

AR/do

LAWRENCE BERKELEY LABORATORY
TECHNICAL INFORMATION DEPARTMENT
1 CYCLOTRON ROAD
BERKELEY, CALIFORNIA 94720