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ATOMIC ENERGY COMMISSION

MEETING NO. 1222

2:15 p.m., Wednesday, September 5, 1956

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Present

Harold S. Vance  
 Thomas E. Murray  
 W. F. Libby

R. W. Cook  
 Edward Diamond

W. B. McCool

Also Present

James E. Ammons  
 John R. Brindel  
 John H. Burchard  
 Charles R. Campbell  
 W. Kenneth Davis  
 Dr. Charles L. Dunham  
 Rafford L. Faulkner  
 Paul C. Fine  
 J. A. Hall  
 Richard J. Hallinan  
 T. H. Johnson  
 George M. Kavanagh  
 Anneliese C. Kupsch

Capt. John H. Morse  
 Curtis A. Nelson  
 Frank K. Pittman  
 Harold L. Price  
 Calvin J. Potts  
 Morse Salisbury  
 David F. Shaw  
 Oscar S. Smith  
 Edwin E. Spingarn  
 A. Tammaro  
 Harri S. Trayner  
 J. A. Waters

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Mr. Strauss was unable to attend the meeting because he was attending services for a religious holiday.

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RH Smiley	
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1. Executive Session\*

- a. PRDC Construction Permit
- b. General Manager's Monthly Report
  - (1) Production
  - (2) Intelligence
  - (3) Military Application
  - (4) Finance

2. Items of Information

- a. Project ROVER (See AEC 355/16, subsequently circulated)

Mr. Cook said that in response to a letter to the Secretary of Defense which the Commission had requested at Meeting 1221 on August 2, 1956, a letter had been received from the DOD restating their position on the degree of effort required for Project ROVER. Mr. Libby requested that the letter be circulated and that this matter be rescheduled for Commission consideration.

- b. Proposed DuPont Study of Heavy Water Moderated Reactor (See AEC 935, subsequently circulated.)

Mr. Cook commented on a draft letter to the DuPont Company requesting that they undertake a study of the possibilities of developing a heavy water moderated natural uranium reactor.

In response to a question by Mr. Murray, Mr. Davis said that this proposal was not a part

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\* Separate minutes for this part of the meeting have been circulated.

[REDACTED]

of the power demonstration reactor program. He added that this project would be similar to those on the sodium graphite reactor by North American Aviation and on power reactors at Hanford by the General Electric Company. Mr. Murray inquired about the work by G.E. at Hanford, and Mr. Davis said that a report on this work and on developments relating to the proposal to DuPont would be included in the next General Manager's Monthly Report.

c. Department of Justice Request for Dixon-Yates Files

Mr. Cook reported that in response to a request from the Attorney General, arrangements had been made to provide AEC's Dixon-Yates files to the Department of Justice for use in preparing the defense for the Dixon-Yates case.

3. General Manager's Monthly Report (continued)

a. Operations Analysis

Mr. Fine reviewed at length a study by the Division of Operations Analysis on the foreign pricing policy papers. (See AEC 720/24, AEC 720/26, AEC 720/28, AEC 720/30, AEC 695/6, and AEC 751/77.)

Mr. Libby commented on the practicality of using plutonium as a reactor fuel in view of its intense radioactivity and observed that LASL, Hanford, and Argonne were now studying this problem.

b. International Affairs

Mr. Hall reviewed plans for the IAEA conference in September and remarked that a

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staff paper on the U.S. position on the draft IAEA statute would soon be circulated. (See AEC 751/38, subsequently circulated.) He pointed out that two major problems involved in establishing the Agency concerned the application of safeguard provisions and the power to be vested in the Agency's Board of Governors as opposed to the general conference of the Agency.

Mr. Hall reported on the recent action by the Government of Brazil in abrogating its thorium procurement and joint exploration agreements with the U.S. He said that similar future agreements must now be approved by the Brazilian Congress, and he did not believe that the bilateral agreement being negotiated with Brazil would be concluded. Mr. Hall said he believed the prestige of the U.S. and the AEC would suffer as a result of the Brazilian action. In response to a question by Mr. Libby, Mr. Hall said no official reports on this matter had been received but he would discuss these developments with the State Department on September 6. Mr. Libby asked whether it would be advisable to accept this action without objections and Mr. Hall said he believed the U.S. should rely on pro-American elements in the government to take any further action.

In response to a question by Mr. Murray concerning the tripartite conference in October with the U.K. and Canada, Mr. Libby said that he had requested this conference in order to discuss with representatives of these countries sampling techniques and measurements for radioactive fallout.

Mr. Hall also commented that Sir Edwin Plowden and Sir John Cockcroft would be in Washington in September for a meeting of the

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International Monetary Fund and would discuss with the Commission at that time the classification of the controlled thermonuclear program.

c. Raw Materials

Mr. Faulkner commented briefly on developments in the Raw Materials program during July.

Mr. Libby commented on the possibilities of encouraging uranium ore prospecting in California and asked Mr. Faulkner to follow up and encourage any developments in this area.

In response to a question by Mr. Murray concerning the price of Portugese ore, Mr. Faulkner indicated that it was not the lowest price AEC pays for ore since the indirect costs of the Portugese ore are not shown in the report.

Mr. Faulkner reviewed modifications which had been approved by the Commission at Meeting 1220 on August 1, 1956, to the Canadian uranium purchase program. He said that he had now been informed that although the modifications were acceptable to Canada, the Canadians were now concerned about the cancellation provision which had been included in them. Mr. Faulkner said that additional recommendations on the Canadian program would soon be submitted to the Commission.

Mr. Faulkner then reported on a draft amendment to the Belgian bilateral agreement providing for the purchase of additional uranium ore and said discussions would be held with the Belgians concerning the price to be paid for this ore.



**d. Construction and Supply**

Mr. Brindel reported on the AEC construction program, including the progress of construction of the AEC headquarters building. He then presented photographs of the APPR, PWR, and the headquarters building construction site.

Mr. Murray asked about the progress on the MIT-Harvard accelerator project, and Mr. Johnson said that no construction had been started although the architect had been selected.

**e. Reactor Development**

Mr. Davis said there had been some delay in construction of the SRE project. Mr. Libby said he did not believe the project would be completed until October, and commented on the problems which had resulted in the delay in the SRE. Mr. Davis then reported on operational difficulties with the HRE Experiment No. 2.

Mr. Davis said a report would soon be circulated on a study by General Atomics Inc., of the possibilities of using a lithium cooled reactor to produce power and tritium.

Mr. Davis reported that a contract had been negotiated with the Stanford Research Institute to review classified ANP data with the objective of declassifying and releasing some of the information to the civilian power program. Mr. Davis then commented on the procedures which had been followed in releasing information on the naval reactors program.

In response to a question by Mr. Murray, Mr. Davis commented on participation of the American Radiator Standard Sanitary Company in the atomic energy program.

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Mr. Davis said the first MTR fuel element made by the Babcock and Wilcox Company was operating satisfactorily and added that the tests in the MTR of yttrium hydride as a moderator material under radiation conditions were very encouraging. He commented on operational difficulties in the SEAWOLF and said that a report on this matter would be circulated to the Commission.

f. Civilian Application

Mr. Price referred to a letter dated August 9, 1956, from the JCAE\* requesting information on three questions which were related to a study by the JCAE staff of the quasi-judicial functions of the AEC. He said that a proposed answer to the JCAE letter would be circulated to the Commission. In response to a question by Mr. Libby, Mr. Price said that a hearing on this matter is scheduled for late September but would probably not take place until much later.

g. Research

Mr. Johnson commented briefly on a forthcoming conference of laboratory directors and AEC staff and on the International Symposium on the Separation of Isotopes to be held at Amsterdam.

Mr. Libby reported on a request by UCRL scientists to expose photographic plates on the bevatron for the Russian physicists. Mr. Libby said he had circulated a memorandum to the Commission on the matter.\*\* Mr. Johnson said that a staff paper on the request would be scheduled for Commission consideration.

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\*A copy of this letter is on file in the Office of the Secretary.

\*\*A copy of this memorandum dated September 5, 1956, is on file in the Office of the Secretary.

#### h. Biology and Medicine

Dr. Dunham reported briefly on the Rongelap resurvey to determine what problems were involved in relocating the natives there. Mr. Libby compared this case to a reactor accident in an inhabited area and commented that this was the first practical experience the AEC has had in relocating inhabitants in a previously contaminated area.

Dr. Dunham observed that studies were being made to determine the effects of radioactive material in the open waste disposal pits at Oak Ridge on surrounding vegetation.

Dr. Dunham then discussed with Mr. Libby the final preparation of the weapons effect handbook and said that it would now be entitled The Effects of Nuclear Weapons.

In response to a question by Mr. Murray, Dr. Dunham said that a staff paper on foreign requests to have shelter design tests conducted during Operation PILGRIM would be scheduled for Commission consideration.

Dr. Dunham reported on a visit by representatives of the AEC and the Department of Agriculture to the Inter-American Institute of Agricultural Sciences in Costa Rica to determine how this organization can participate in the atoms-for-peace program.

#### i. Organization and Personnel

The Commissioners had no questions on the report of the Division of Organization and Personnel.

j. Security

Mr. Waters briefly reported on his visit to Norway to survey the security system there and said that a report on this trip would soon be circulated to the Commission.

k. Information Services

Mr. Salisbury reported on international radio and press coverage of and reaction to the U.S. announcements of the current Soviet test series.

l. Inspection

Mr. Nelson reported on the progress in delegating to the Operations Offices responsibility for carrying out the licensee inspection program.

In response to a question by Mr. Libby, Mr. Nelson commented briefly on the theft of material and arrest of employees at ACF-Buffalo. Mr. Nelson said that a report on the current situation at ACF-Buffalo would be circulated to the Commission.

W. B. McCool

Secretary

Approved by the Commission: Meeting 1254

December 12, 1956