

THE UNIVERSITY OF WISCONSIN
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DEPARTMENT OF PHYSIOLOGICAL CHEMISTRY
MEDICAL SCIENCES BUILDING

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TELEPHONE NO. 262-1347

April 1, 1970

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

REPOSITORY

326^{u.s.} Atomic Energy
Commission

COLLECTION

Biology of Medicine

BOX No.

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Dear Dr. Seaborg:

The Advisory Committee for Biology and Medicine held its 133rd Meeting at the AEC "H" Street office on March 13 and 14, 1970. ACBM members present were Drs. Cohen (Chairman), Moseley (Vice-Chairman), Bale, Haagen-Smit, Stout, ~~Patt~~^{Dr.} (Scientific Secretary) and Rosemary Elmo (Executive Secretary). Also present were Dr. Totter and members of his staff, Dr. S. G. English, and representatives of other AEC Divisions and offices ~~in the Department of Energy~~.

The meeting began with an executive session attended by Drs. Totter and English. Dr. Totter reviewed the Commission's interest in having advice on environmental matters with particular reference to the scientific validity for current radiation safety standards. Because of current attacks on the FRC and NCRP guides and standards, information was presented by Dr. Totter on the proposal that a large scale low dose exposure experiment with mice be conducted. It was pointed out that a proper study would require a million mice and an annual budget of \$10,000,000. This represents over 10 percent of the present DBM budget. Dr. Totter informed the ACBM on the distribution of budget cuts within the DBM. Drs. Totter and English explained that an agreement had been reached between DBM, the Commission and Dr. Roger Batzel, Associate Director at the Livermore Research Laboratory, that the ~~biology~~^{biomedical} program at LRL would be cut by \$280,000 which included a \$60,000 cut in the projects being directed by Dr. Gofman.

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The open meeting which followed began with a presentation, "Observations on Determination and Use of Radiation Protection Standards", by Dr. Moseley. He called attention to serious errors, mainly in the direction of underestimation, of dose measurements of early studies which cast serious doubt on the validity of interpretations derived from retrospective studies. Thus evidence was presented that some radiologists had been exposed to annual doses as high as 700 R before adequate regulations for the use of x-ray equipment were established. In a discussion on the current attacks on the FRC guidelines, Dr. Burr referred to current efforts by FRC to reexamine its standards and his experience as a witness in a public hearing held by the City Council of New York on legislation to ban nuclear power reactors. Dr. Edington provided the ACBM with a critique of Dr. Tamplin's presentation at the 136th AAAS Meeting in Boston on genetic hazards of radiation. The basic errors in Dr. Tamplin's interpretation and his selective use of partial data were pointed out.

The ACBM then met with you and Commissioner Johnson in a closed session which also included Drs. English and Totter and Mr. Hollingsworth. The matters discussed at this meeting are of course known to you and served as a basis for a later discussion by the ACBM.

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The ACBM then resumed its open meeting with reports, as follows: 1) Rocky Flats, ~~(by C. R. Richmond, D. H. Slade, J. H. Harley and T. R. Tesche);~~ 2) Legislation affecting the nuclear power industry ~~(by B. H. Schur);~~ 3) Federal Water Pollution Control Meeting and thermal problems ~~(by R. Holton);~~ 4) public information activities of AEC in relation to nuclear power reactors ~~(by H. C. Brown, Jr., and J. J. DiNunno);~~ 5) present status of the Rulison Trial ~~(by W. R. Bibb);~~ and 6) radon contamination of houses in Uravan and Grand Junction ~~(by H. D. Bruner and R. J. Catlin).~~

At its meeting on March 14, the ACBM was briefed by Dr. Totter on the recent JCAE hearings with particular reference to the food irradiation program and the centralization at Argonne National Laboratory of the study of records of radium dial workers. Dr. Goldstein summarized the Medical Branch review of the UCLA program which was followed by an interim report of the ACBM ad hoc Committee.

Commissioner Larson was present during a portion of this meeting and he informed the ACBM of his impending visit to ABCC. In response to a question by Commissioner Larson, the Committee expressed the view that ABCC was continuing to provide important and useful information and thus deserved continued support.

The Meeting was concluded in executive session. The ACBM again expressed its concern for the need for expanded support for the DBM in order that it might be able to meet the anticipated and continuing demands for more basic information, yet to be developed, in our understanding of the basic biological effects of radiation. It is the view of the ACBM that while it is satisfied with the scientific basis for present safety standards as related to operation of nuclear power reactors, continuing concern about and long range biological studies of predicted incremental increases of low levels of radionuclide output from power reactors will need to be taken into account. This is particularly urgent in view of the likelihood of a rapid increase in the number of power reactors in this decade. While engineering efficiency may improve to the point where no problem exists, the ultimate answer demanded by the public is that of the highest possible degree of biological safety. The proposal by J. Lederberg that a long range study on the efficiency of DNA repair in cells of the human and other species under a variety of conditions of radiation exposure is one type of study which merits consideration and possibly financial support by the DBM, if additional funds could be obtained.

The ACBM was informed that Dr. John S. Laughlin, Chief, Division of Biophysics, Sloan Kettering Institute for Cancer Research had been invited to join the ACBM as a replacement for Dr. Bale; and that Dr. Clement A. Finch, Division of Hematology, U. of Washington Medical School, Seattle, had been invited to serve in place of Dr. Stead.

The 134th Meeting of ACBM will be held at the Pacific Northwest Laboratory, Richland, Washington on May 7 and 8, 1970. The 135th Meeting was scheduled tentatively for October 9 and 10.

Dr. Glenn T. Seaborg

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The ACBM appreciates having the opportunity to discuss matters of urgent biomedical interest with members of the Commission.

Sincerely,

A handwritten signature in cursive script, appearing to read "Philip P. Cohen", followed by a horizontal line extending to the right.

Philip P. Cohen, Chairman
Advisory Committee for Biology and Medicine, AEC

PPC:kep

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