

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

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December 3, 1957

Mr. L. L. Strauss, Chairman
United States Atomic Energy Commission
1901 Constitution Avenue NW
Washington 25, D. C.

Dear Mr. Strauss:

The Advisory Committee on Biology and Medicine held its 65th meeting November 8 and 9 at the Argonne Cancer Research Hospital in Chicago. We were pleased to have the two new members of the committee, Dr. James G. Horsfall and Dr. Harland G. Wood in attendance. Dr. Shields Warren was re-elected vice-chairman of the committee, and the responsibility of chairman has fallen upon me. I hope that I may fulfill this with some measure of wisdom which preceding chairmen have brought to this position.

On the first day of the meeting, Dr. Leon Jacobson and members of the staff of the hospital presented to us a rather comprehensive review of selected phases of the research going forward in both fundamental and applied phases bearing upon the cancer problem. In all of these studies nuclear energy in some measure had a role, either as a tool in research, studies relating to radiation injury, or in the application of nuclear energy to therapy in cancer. The committee is delighted to see the productive climate of investigation which has been engendered in this hospital, and in close collaboration with the University of Chicago. We noted also the many opportunities for graduate training in related sciences and medicine which are being exploited. The phase of the program which appears to be lagging time-wise is the completion of the linear accelerator. The purpose of this accelerator program has been to explore the utility of 50 MeV electrons in biologic research and especially in cancer therapy in comparison with other radiation sources. In order to accomplish biologic and medical research refinements in the instrument are required over and above those which would pertain to mere physical exploration of an electron beam of this energy. The hope was expressed that this project might be speeded through completion of the installation so that the planned purpose of the instrument might be brought under way.

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

Page 2

Dr. G. V. Beard of the Division of Biology and Medicine presented an excellent digestion of factors bearing upon reactor safety as they pertained to human hazard, both civilian and military. This engendered discussion concerning other related problems (chemical, processing or fuel elements, manufacturing, handling and transportation of nuclear materials) which require surveillance in the overall effort to build and utilize atomic reactors for power and transportation. Because of the importance of the subjects further discussion is projected for the next ACBM meeting in Washington.

Because of the paucity of data bearing upon actual reactor accidents, the committee urges that every effort be made to obtain British consent to the AEC being informed concerning the details of the recent Windscale accident as they may bear upon our reactor design and hazards. The committee earnestly hopes that the results of the study of the Windscale accident can be made available to it at the earliest possible date.

Dr. Gordon Dunning of the Division presented, for consideration by ACBM, recommendations which have been formulated by the Nuclear Safety Working Group for the transportation and storage of nuclear weapons. The Committee recognizes the great importance which these movements have, both to national defense and to possible civilian hazard. The recommendations of the group were endorsed with consideration being given however to educational efforts being directed more to those segments of the public concerned with civilian disasters (i.e., police and fire protection, public health officials) than to the public in general.

The report by Dr. A. A. Seymour of the Division on the recent Naples Marine Biological Conference was tangible evidence that the Atoms-For-Peace Program can be mutually beneficial and productive.

In a discussion initiated by Dr. Bugher, the Committee considered the growing need for highly trained specialists in the Medical and Public Health field who have in addition a broad knowledge of the scientific, engineering, social, and legal aspects of insuring public health and safety in a highly complex and constantly evolving Atomic Energy Program wherein the chief emphasis is upon nuclear power. Individuals of this type require an unusual preparation which cuts across almost all of the traditional divisions of a university. Their development requires an educational flexibility that is not now sufficiently present in our institutions. There is implied an educational program which would enable the intellectual resources of a university to be brought into an harmonious relationship in the post-graduate education of otherwise well-prepared health personnel. These are the people who ultimately should

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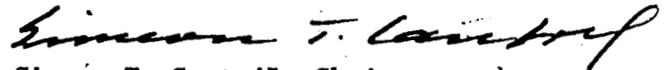
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UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON 25, D. C.

Page 3

be the leaders in the state and national programs, assisting and guiding in new advances when the latter are still in the conceptual stage. While the Commission has a deep interest in this educational aspect and can greatly encourage its development, the primary responsibility must rest upon the educational institutions themselves. We venture to suggest the appropriateness of calling this responsibility to the attention of those charged with formulating university policies, and to government and philanthropic agencies who might offer support to universities undertaking this new responsibility.

Yours respectfully,



Simeon T. Cantril, Chairman
Advisory Committee on
Biology and Medicine

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