

326 US ATOMIC ENERGY COMMISSION

US GOV ARCHIVES

711293

RG _____

Collection Biology of Medicine

Box 2

Folder 7

DEC 28 1967

Dr. Earl L. Green
 Director, The Jackson Laboratory
 Bar Harbor, Maine 04609

Dear Dr. Green:

Thank you so much for your letter of November 13, 1967, reporting on the 121st meeting of the Advisory Committee for Biology and Medicine at the Oak Ridge National Laboratory.

We agree with you about the importance of any studies designed to shed light on the distribution of the radiation dose in the human after exposure to radon and its daughters. We lean, however, toward the position that at present there is more likelihood of developing useful information by pursuit of the experimental programs at the University of Rochester and Battelle Northwest Laboratory than might come from a study which employs establishment of assumptions and development of mathematical models as stressed by ORNL. It may well be that the development of a model and its exploitation will be more useful after a larger body of experimental data is available for guidance.

We share the Committee's view on the potential significance of waste disposal problems which are associated with the chemical processing of irradiated fuel. As described to the Committee by ORNL Health Physics Division staff, the technical feasibility of storing solidified high-activity waste (for which technology is now being developed at Hanford) in a salt mine has been demonstrated in the field studies recently completed at Lyons, Kansas. As a follow-on to these studies, Oak Ridge has been studying a prototype salt disposal facility, taking into account future power reactor and chemical processing plant siting requirements. This study (to be completed by the middle of 1968) will provide the basis for construction and operation of such a facility, prior to its being needed by the nuclear industry in the early or middle 1970's.

With regard to your suggestion concerning a national meeting on Ecology, you are aware of the fact that the 2nd National Symposium on Radioecology was held under AEC sponsorship at the University of Michigan in May 1967;

OFFICE ▶					
SURNAME ▶					
DATE ▶					

1071290

Dr. E. L. Green

- 2 -

these (the first was at Colorado State in 1961) conferences provided an opportunity to over-view the state of knowledge and research in broad areas of radioecology. Future programs (conferences) of both broad and more specific nature will be held when appropriate, and attempts will be made, as in the past, to encourage participation by researchers supported by other agencies. The great increase of study in environmental problems makes for considerable unwieldiness in running a program and will make the third symposium difficult to plan. We have thought of limiting the next symposium to freshwater, marine or terrestrial categories, but increasing scientific interdependence of disciplines related to these broad areas poses problems. Over 350 scientific people participated in the Michigan symposium. You can be assured we will continue to explore "the organization of a National Conference on Ecology and the Effects of Man on His Environment."

We share your enthusiasm for the importance of fundamental studies of radiation interaction processes and energy transfer mechanisms. The implications of such basic investigations for understanding radiation-induced physico-chemical processes in complex systems are indeed significant, and we shall continue to encourage programs in this area.

Your evaluation of the work of the Radiation Dosimetry group is gratifying. The activities of the standardization program on inter-comparison of dosimeters fill a great need and we shall continue to lend support for further efforts in this area.

The proposals dealing with the development of Agro-Industrial Complexes are of very great interest to the AEC. The biological implications of these complexes are, of course, far-reaching. The DEM has written Dr. Weinberg (see enclosed copy of letter) of their interest and desire to be kept informed as well as to provide assistance where possible. It seems to us imperative that expert advice on all aspects of the project be sought for input into the planning.

The Commission appreciates very much your comments on the programs of the Health Physics Division of ORNL.

Sincerely yours,

DISTRIBUTION:

- Chairman (2)
- Secretariat (2)
- GM (2)
- AGMRD (1)
- BMA (1)

GM #58010

(Signed) Glenn T. Seaborg

Chairman

PARAGRAPH ON WASTE DISPOSAL
WRITTEN BY DR. LIEBERMAN, REACTOR
DEVELOPMENT

BMADA *[Signature]*
STANWOOD 12/21/67

Enclosure:

cc	ltr, 11/20/67,	Weinberg/Totter			
OFFICE	BM DIRECTOR	BM DEP DIR	AGMRD	EAGM/DGM	GM
SURNAME	TOTTER/RME	STORER	<i>[Signature]</i>	<i>[Signature]</i>	
DATE	12/21/67	12/1/67	12/27/67	12/28/67	12/1/67

1071291