19 April 1957, Volume 125, Number 3251

SCIENCE

SCIENCE, founded in 1880, is published each Friday by the American Association for the Advancement of Science at Business Press, Lancaster, Pa. Entered at the Lancaster, Pa., Post Office as second class matter under the Act of 3 March 1879.

SCIENCE is indexed in the *Reader's Guide to Periodical Literature* and in the *Industrial Arts Index.*

Editorial and personnel-placement correspondence should be addressed to SCIENCE, 1515 Massachusetts Ave., NW, Washington 5, D.C. Manuscripts should be typed with double spacing and submitted in duplicate. The AAAS assumes no responsibility for the safety of manuscripts or for the opinions expressed by contributors. For detailed suggestions on the preparation of manuscripts, book reviews, and illustrations, see *Science* 125, 16 (4 Jan. 1957).

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The AAAS also publishes THE SCIENTIFIC MONTHLY.

Radiation and Health

Companion bills introduced in the Senate (S. 1228 by Senator Neuberger and several colleagues) and in the House (H.R. 4820 by Representative Porter) propose the establishment of a National Radiation Health Institute in the Public Health Service. The institute would be empowered to conduct research, support training, initiate control programs, make grants-in-aid for research, and be responsible for the study and treatment of diseases arising from atomic radiation.

It may be questioned whether the establishment of a new institute in this field is desirable. The Atomic Energy Commission is already carrying out many studies on the effects of radiation on health and is working in close cooperation with the Bureau of State Services of the Public Health Service to measure radiation and to determine the accumulation of radioactivity in water, soils, and foods. The enabling act of the Public Health Service is broad enough to permit the bureau to expand these activities and to put into effect any necessary public health controls.

But, if the proposed institute duplicates services already provided, it does not face up to the larger issues, for the bills would apparently confine the institute to the study of diseases and conditions arising from *atomic* radiation. At present, atomic radiation, in the usual sense, accounts for only a small fraction of the total radiation to which we are exposed: the background radiation and the average exposure to x-rays account for most of the radiation burden. So far as health is concerned, the source of radiation makes little difference. One roentgen is about as bad as another. Consequently, any radiation health agency should deal with radiation from all sources. The problem merits a comprehensive, not a piecemeal, solution.

The bills also propose that another agency, the Office of Radiation Health Control, be established in the Public Health Service. This office would in effect be empowered to carry out the recommendations made in the National Academy of Sciences' report on *The Biological Effects of Radiation* by "making available to each person in the United States a voluntary, simple and efficient means of keeping a permanent record of measurable amounts of radiation to which he is exposed during his lifetime." Would the considerable effort required to keep such records for a large part of the population be worth while? Possibly the only sound way to find out would be to try one or more pilot programs. Such records would obviously be of value to anyone who decided to work in an atomic installation. For others, the value is at least debatable, for, at the risk of oversimplification, it may be said that the decision to expose anyone to x-rays is governed primarily by the necessity for diagnosis and treatment, not by the record of previous exposure.

The relation of radiation to health is a problem of vast complexity. Much has to be learned before we will be able to plan an effective program. Perhaps the best course to follow would be to let existing agencies gain more experience before deciding that it is necessary to establish new ones.
—G. DuS.