sulting from chemical processing operations at Idaho might have concentrations in the hundreds or thousands of curies per gallon. Thus we have a factor of difference in concentration of the order of tens or hundreds of millions. Also, the total number of gallons (i.e., total quantity of radioactivity) evolving from the two situations is vastly different. As an example, in 1957 the AEC disposed off both coasts of the United States at designated locations 686 55-gallon drums of solidified laboratory waste liquids (this volume includes concrete and other solidifying agents). On the other hand there are about 65 million gallons of high-level wastes in storage at Hanford, Savannah River, and Idaho. We do not propose to dispose of these at sea, even though some oceanographers may indicate that a "dilute and disperse" waste disposal approach may be theoretically possible.

The wastes considered for sea disposal originate in various AEC research and development operations and in research laboratories of hospitals, universities, industrial firms and other places where radioactive isotopes are used for various purposes. The radioactive waste itself usually is in the form of contamination on equipment such as test tubes, bottles, rubber gloves, blotting paper, and rubber tubing. This trash is packaged within concrete in 55-gallon drums or in preformed, reinforced concrete boxes before disposal.

Although experience in other countries has demonstrated the safety and practicality of disposal of bulk radioactive liquids at sea, all radioactive wastes disposed of by the AEC and licensees off both the Pacific and Atlantic Coasts of the United States have been in the solid or packaged form, with two minor exceptions. These exceptions involve millicurie quantities. Most of the waste has been contained in 18-gauge, 55-gallon drums with concrete liners and concrete tops and bottoms for weighing and shielding purposes.

New Legislation Opposed

H.R. 8187 is a bill to impose certain restrictions on the disposal of radioactive material in the Gulf of Mexico. It would prohibit the disposal of any radioactive material in the Gulf of Mexico at a point a) less than 200 miles from the shoreline of any State of the United States; b) where the water is less than 1000 fathoms deep or c) where the waters are used customarily for commercial sports or fishing.

In addition, it would prohibit the disposal of any radioactive material into the Gulf of Mexico unless the material is in a container of "such character and strength that it will remain intact indefinitely, regardless of the depth of the water in which it is deposited." Moreover, if the shipment of radioactive material originated or was assembled in a State bordering on the Gulf of Mexico, disposal in the Gulf would be prohibited unless permission to dispose of the material had been obtained from the State or an authorized official or agency of the State.

Since receiving the request of the Joint Committee for comments on H.R. 8187, we have not had an opportunity to prepare detailed comments on the bill. We should like to say, however, that the Commission would not look favorably on the bill.

The disposal of radioactive material into the seas (including the Gulf of Mexico), involves detailed considerations of many technical factors. These include a) the nature and characteristics of the radioactive materials; b) the oceanographic features of the site proposed for disposal, including the ocean currents and the biological characteristics; c) the nature of the packaging methods; d) other technical factors that may be involved in the particular disposal activity.

We believe that such questions can more appropriately be resolved by quasi-judicial and quasi-legislative procedures, subject to the Administrative Procedures Act, as carried out by the Atomic Energy Commission and other Federal administrative agencies. We believe that it would be undesirable to establish by legislation specific prohibitions which do not take into account the many varying, technical and scientific considerations involved in this complex subject.

News Briefs

Scientists from 18 countries have begun a 2-month training program at Cornell University on uses of atomic energy in agricultural research. The program is sponsored by the U.N. Food and Agriculture Organization and the International Atomic Energy Agency.

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Columbia University and the California Institute of Technology are about to begin construction of a "lunar seismograph." Under contracts from the National Aeronautics and Space Administration, seismological experts from the two institutions plan to develop a "moonquake" detection system to be established on the moon. The seismograph's signals would be monitored at stations on earth. At Columbia the work will be carried out by the Lamont Geological Observatory, Palisades, N.Y.; at C.I.T., by the Seismological Laboratory.

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The August issue of the *Microchemical Journal* introduced a new feature in presenting its first "Annual Progress Number." Published as the third of a year's four issues, each annual progress number will cover advances in microchemistry made during the year. The *Microchemical Journal* was launched in April 1957 under the auspices of the Metropolitan Microchemical Society, New York. It is published by Interscience Publishers.

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An agreement to establish the first joint nuclear research center of the European Atomic Energy Community has been signed by the Euratom Commission and the Italian Government. The center, to be located in Ispra on the shores of Lake Maggiore in northern Italy, will be manned by 1200 scientists from the six Euratom countries by the end of 1962.

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Progress in Atomic Energy, volume 1 of the proceedings of the second United Nations Conference on the Peaceful Uses of Atomic Energy, is now available. The volume, which contains 525 pages, 218 illustrations, and 162 charts and graphs, can be ordered through any bookstore or directly from the United Nations, Sales and Circulation Section, New York, N.Y. (price, $12.50).

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A new major, Mathematics for Teachers, will be offered this fall by the mathematics department at the University of California, Berkeley, to provide training for future high-school teachers of mathematics. Upon completion of the major, students may enter the internship program of the department of education, which consists mainly of a year of intern teaching at full salary, or they may take a fifth year of work in education and earn a teaching credential in the usual way.

Each year a leading professor of mathematics from a California state college will be appointed visiting professor at the Berkeley campus to assist in directing the program. For 1959–1960, the visiting professor will be Roy Dubisch, chairman of the mathematics department at Fresno State College.

The new program is supported in part by a $50,000 grant from the National Science Foundation.