

BOOK REVIEWS

*(Editor's Note: Louis H. Roddis, a graduate of the Naval Academy, was a member of the Naval group under Admiral Rickover which directed the nuclear submarine project from its earliest days. He transferred to the U. S. Atomic Energy Commission where he was deputy director of the Reactor Development Division for several years. He is now president of the Pennsylvania Electric Company. Mr. Roddis is currently the chairman of the Maritime Research Advisory Committee, National Academy of Sciences—National Research Council.)*

**International Control of Nuclear Maritime Activities.** By LEE M. HYDEMAN AND WILLIAM H. BERMAN. The University of Michigan Law School, Ann Arbor, 1960. 350 pp. \$ 4.50.

This interesting document sheds considerable light on a field which is, to say the least, confusing both technically and legally.

The average administrator, engineer, or scientist in the atomic energy field will find it considerably easier to read than the average lawyer. Although the book deals with problems of international control and law, it is so written that those without legal training will have no difficulty with it. However, for one without a background in the atomic energy field, the prior reading of an elementary text on atomic energy technology would simplify the understanding greatly.

The book deals principally with problems of hazards and controls and touches rather lightly on liability matters. It considers both the immediate pressing problems of the transporting of radioactive materials and sea disposal of radioactive materials as well as the problems posed by nuclear powered vessels. The present legal rights as set forth in international and admiralty law are covered in considerable detail. The book concludes with a specific series of recommendations for multinational action through three international conventions which are recommended to be held under the auspices of the International Atomic Energy Agency. It is suggested that a convention on the international transport of radioactive materials by sea, air, road, and rail be convened, that also a convention on the disposal of radioactive wastes and one on the safety of nuclear powered vessels be established.

This book was undertaken and published by the Atomic Energy Research Project of the University of Michigan Law School of which the authors were co-directors at the time it was written.

I suggest it as required reading for anyone in a responsible position in the atomic energy business today.

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*(Editor's Note: Mr. Colomb, a Swiss, assisted the United States in the construction and operation of the pool-type reactor at the Geneva Conference in 1955. He received his B.S. degree in physics at the Federal Institute of Technology in Zurich, Switzerland in 1954 and his M.S. degree in nuclear engineering at the Massachusetts Institute of Technology in 1956. He is currently employed at the Oak Ridge National Laboratory in the Reactor Operations Division where he has been engaged in research on the control of reactors.)*

**L'Electronique Nucléaire—Nuclear Electronics,** Volume II. International Atomic Energy Agency, Kärntner Ring, Vienna I, Austria, 1959. 378 pp. \$4.00.

This volume contains a compilation of papers given at the International Symposium on Nuclear Electronics (Paris, 1958). It brings out electronic applications used for solving problems regarding atomic energy and nuclear physics.

This book is divided into four main sections, each comprising from seven to twelve papers and followed by a report of the discussion which took place afterwards. These sections are

- Reactor Control: Simulation
- Equipment for Prospection and Protection
- Centralization and Exploitation of Results
- Transistorized Equipment, Standardization, and Components.

As can be expected from such a survey, there are articles of a very general interest and others which appeal more to the specialist.

The simulation of reactors and atomic power plants provides a series of careful studies. Some theoretical papers deal with problems of nonlinear kinetics and the stability of reactors and their control systems.

The section on Equipment for Prospection and Protection points out clearly the similarity of these two kinds of instrumentation. It describes interesting means of sorting uranium and thorium containing minerals and of controlling their grade. It also presents various types of instruments used for radiation detection as well as for the determination of air contamination. More particularly, it includes a description of an instrument measuring small air-borne plutonium concentrations in the presence of the natural radon background.

The papers given in the third section can be classified in two categories: first, those dealing with the interpretation of data resulting from nuclear physics measurements; and second, the ones referring to the utilization of data registered during operation of reactors and atomic power plants.

The last section contains various descriptions of transistorized equipment such as stabilized power supplies, time-of-flight selectors, and prospection instruments.

This volume will be of definite use to people interested in reactors and atomic power plants control as well as to the