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Book Reviews

Directory of Nuclear Reactors - Volume V, Research, Test and Experimental Reactors. Published by IAEA. 326 Pages. $7.00.

This volume supplements earlier volumes (II and III) published by the International Atomic Energy Agency using the previously adopted format for presentation of data. It contains information on 78 reactors in 16 countries that are in operation or under construction as of the date of publication. As is inevitably the case in any publication of this nature in book form, the time lapse between collection and publication or use leads to some inaccuracies. Most of the information presented is dated in 1962 and 1963; thus, for example, modifications in designs or status during 1964 are not reflected. This need to record changes has been recognized by the IAEA with a Reactor Card Index which is issued as an addition to the *Directory of Nuclear Reactors* and which is updated by periodic issuance of new and replacement cards. Its use is recommended for those who want to assure current validity of information.

The reactors summarized in Volume V are grouped in accordance with the following categories: light-water moderated pool-type; light-water moderated tank-type; Argonaut type; solid homogeneous; heavy-water moderated; graphite moderated, and fast. Fortunately, much repetition of data on very similar reactors is avoided by cross references and by concentration on differences after the first complete data sheets.

Those who are familiar with previous volumes will recognize that the emphasis in these presentations is on providing a broad range of comparative data along with drawings and flow charts sufficient for an understanding of the reactor concept but not sufficient to present a detailed description of the design. Thus, drawings have a sparsity of dimensions and detailed notations. Those interested in more details are provided a bibliography for guidance.

The summaries of research facilities for each reactor generally are rather well done, though concise, and should be of particular interest to those involved in planning broad research and development activities.

While the editorial job appears to have been very competent and the uniformity of format facilitates comparative studies, the brevity of the information provided warns that such comparisons should be done with caution. This probably is particularly true with respect to information on the cost of building and operating each facility, though an effort is made to identify supporting facilities and a summary of the operating staff is generally included.

Volume V, particularly when used in conjunction with other volumes in the *Directory of Nuclear Reactors*, is a useful source document for anyone interested in the world's nuclear reactors. This should include scientific or technical workers and management personnel both in industry and government.

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About the Reviewer: Mr. U. M. Staebler, since graduating from the University of Kansas with a B.S. degree in Physics in 1942, has devoted essentially his entire professional career to the field of nuclear energy, first with the duPont Company on loan to the Metallurgical Laboratory at the University of Chicago, then at the Hanford Works until 1949 when he joined the Atomic Energy Commission.

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Reactor Handbook. Second Edition, **Volume IV, Engineering.** Editors: Stuart McLain and John H. Martens, Interscience Publishers (New York, London, Sydney), (1964) 857 pages, $25.40. Prepared under the auspices of the Division of Technical Information, USAEC.

According to its Preface, the *Reactor Handbook* "first materialized as a set of classified volumes