

mental surveillance with consideration of equipment for studying ground, water and atmospheric conditions.

The author's long and varied experience in the field has allowed him to choose those topics of most value to a wide group of readers. The book is firmly packed with useful information, nicely tabulated or illustrated with well-chosen tables and graphs, and the topics are clearly explained. There is a good selection of references to the literature but the book is not dependent for its usefulness as a literature survey. It should have considerable lasting value.

D. W. Pearce

Battelle-Northwest
Pacific Northwest Laboratory
P. O. Box 999
Richland, Washington 99352

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About the Reviewer: After teaching and doing research for the Manhattan District at Purdue University, D. W. Pearce joined the General Electric Company at Hanford in 1947. Here he was Manager, Biophysics, and Manager, Chemical Effluents Technology. He served as Director of the Division of Health, Safety and Waste Disposal at the International Atomic Energy Agency, Vienna, during 1961-1963, returned to G. E. at Hanford as Consulting Scientist in the Chemical Laboratory and is now Senior Research Associate there with Battelle Northwest Laboratory.

Concise Dictionary of Atomics. Edited by Alfred del Vecchio. Philosophical Library, New York City. 262 pages, \$6.00.

The *Concise Dictionary of Atomics* is designed to explain the vocabulary of the atomics energy program to students and newcomers to the field. From A for argon to Zr for zirconium, the author has assembled some two- or three-thousand definitions of scientific, medical and historical terms used in the AEC programs. In addition brief biographies are given of well-known nuclear scientists, as well as descriptions of the most important organizations sponsoring nuclear research.

Certainly the author has done a very comprehensive job of assembling information about the program. Thus one can find that "crud" is slang for an undesirable impurity in a process, a "daraf" is a unit of elastance which is obtained by spelling farad backwards, "anaphase" is the third stage of mitosis in cell division, etc. The author

appears to have done a good job of covering chemical and physical terms, with engineering and medical terms not quite so well represented.

The chief criticism this reviewer has is in the handling of the mathematical definitions. Evidently the publisher has had little experience with scientific publications, and numerous errors appear in the mathematical equations and formulas. For example, the Laplacian operator is written Δ^2 rather than the more customary ∇^2 , the equation for the (α, n) reaction is wrong, the symbol for frequency is written v instead of ν , the de Broglie equation has a square root upside down, u is used for absorption coefficient instead of μ , and several of the equations are rather poorly set up. In view of the very limited amount of mathematical material which is included, it might have been better to eliminate it entirely rather than to do such a poor job with it.

In summary, the book can be recommended for nontechnical personnel who are associated with the atomic energy program such as those in administration, secretarial staff, newspaper reporters and in general anyone who has to work with scientific personnel. The book might be of limited value to those who are first starting to study the technical features of atomic energy, but the experienced engineer or scientist will probably find the definitions too general to be of much value to him.

R. Stephenson

The University of Connecticut
Storrs, Connecticut
06268

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About the Reviewer: Dr. Richard Stephenson was in the engineering division of the Oak Ridge National Laboratory from 1950 to 1954, during which time he performed shielding experiments and wrote a book, Introduction to Nuclear Engineering.

He was at New York University from 1954 to 1957, was a Fulbright Professor at the Vienna Institute of Technology 1957-1958, and has been a professor of nuclear engineering at the University of Connecticut since 1958.

Nuclear Power Systems. By C. D. Gregg King. The MacMillan Co., New York, N. Y., (1964). 480 pages. \$13.00.

Published as an introductory text, *Nuclear Power Systems* serves this purpose admirably. It is comprehensive, well-organized, well-written