About the Reviewer: R. Louis Bradshaw received his degree in electrical engineering at Auburn University and has done graduate study at the University of Tennessee. He has been with the Oak Ridge National Laboratory since 1951. Since 1953 he has been with the Health Physics Division of ORNL and has worked on research projects relating to radioactive aerosols, environmental monitoring, and high-level waste disposal. Mr. Bradshaw presented one of the papers at the Vienna Symposium Ultimate Storage of High-Level Waste Solids and Liquids in Salt Formations *and was coauthor of a second paper* Economic Evaluation of Tank Storage and Pot Calcination of Power-Reactor Fuel Reprocessing Wastes.

Nuclear Power Technology. Edited by F. J. Pearson. Oxford University Press, (1963). 355 pp. 42s. net.

The editor describes this book as an outgrowth "of various courses of lectures on nuclear power given by several contributors, mainly at the College of Advanced Technology, Birmingham." In my opinion it suffers both from the fact that it is essentially a compilation of lectures rather than a carefully planned, well integrated book and from the fact that it is very strongly influenced by the directions of emphasis given nuclear power technology in the United Kingdom. It is understandable that local experiences would be reflected in such a composition and perhaps my reaction to some of the passages is the more negative because of long-term association with the program in the United States. However, I believe even other readers in the United Kingdom might question the general objectivity of statements such as the following:

> Page 227 (on graphite as moderator) - "... except for some special reactors it is probably the most convenient material available."
> Page 251 (on heavy water as a moderator) - "Its use is limited to small reactors because of the enormous expense of extracting..."
> Page 254 - "The use of air (as coolant) is not possible at temperatures above 300° C as the oxygen attacks the graphite moderator."
> Page 255 - "Water boils at too low a temperature for power production unless pressurized, and a pressurized system is expensive to construct and maintain."

These are but a few (and not the worst) of the many such statements noted throughout the text.

Some feeble effort at cross referencing material in different lectures is apparent; however, it falls far short of the editorial job needed to eliminate unnecessary duplication and provide smooth continuity. While not particularly important to understanding, the intermittent use of °F and °C in various chapters seems indicative of this weakness.

The date of the preface is October 1962, and the date of publication is June 1963; however, the material does not appear to have uniformity as of any particular time. For example, while note is taken of the lack of papers from the Soviet Union at the Melbourne meeting of the World Power Conference in October 1962, it is claimed (in another part of the same chapter) that the UK is the only country which "has won export contract." The list of Nuclear Power Reactors given as Appendix II suffers from similar evidence of inaccuracy even as of the time of final editing. Such obvious inconsistencies give rise to natural doubts about technical material which is more difficult to check in detail.

The purpose given for creation of this book is a valid one. The work does provide an introduction to the many branches of nuclear power technology and can be the basis for some readers gaining a better appreciation of the many problems involved. However, I believe that most knowledgeable American readers would find many of its evaluations biased almost to the point of distortion.

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Effect of Ionizing Radiation on High Polymers. By T. S. Nikitina, E. V. Zhuravskaya, and A. S. Kuzminsky; 13th in a series of volumes of Russian Tracts on Advanced Mathematics and Physics. The present translation from the Russian to the English language by Scripta Technica, Inc., copyrighted by Gordon and Breach Science Publishers, Inc. in 1963.

As a pertinent general background for the material to follow on the effects of ionization, the authors treat briefly: the interaction of radiation and matter, the units of measurement, the sources of radiation, gamma rays, electrons, neutrons,