

The last part of the book, "Design Considerations," covers various aspects of design theory and also of experimental aids to design, such as photoelasticity, strain gages, and even radioactive isotopes. It is useful to a practicing engineer to have this information assembled in convenient form both to make him aware of new techniques and to get him started on applying the knowledge to his own problems.

My general reaction to the book is that it contains a great deal of information on a multitude of subjects on which a designer of equipment using metals should be knowledgeable. This second edition includes topics brought into existence by the nuclear and space ages. Most of the articles are written in book or lecture style and contain numerical data only for illustrative purposes, but they give the reader a quick education on specific topics and direct him to more detail through the references. The book should be particularly valuable to engineers or scientists who only occasionally need to design equipment and who may not have a large reference library readily available to them. It should be mentioned that the book was printed somewhat carelessly in terms of typographical errors and sometimes crudely portrayed figures, but this amounts only to an occasional annoyance and is not a major detraction from its value.

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*production of fuel elements for various reactors. He worked on the Manhattan Project, was head of the MIT Metallurgical Project from 1946 to 1955, and since then, has been Vice President and Technical Director of Nuclear Metals. His BSME (1933) is from Lafayette College, and DSc in Metallurgy (1938), from MIT.*

#### BOOK ANNOUNCEMENTS

Although the following books will not be reviewed, they may be of interest to some of our readers:

*Radioactive Investigations of Oil and Gas Wells*, O. A. Barsukov et al, Pergamon, 1965, 299 pages, \$12.00

*Flow and Fracture of Metals and Alloys in Nuclear Environments*, (symposium presented at 67th annual meeting of ASTM, June, 1964), American Society for Testing and Materials, 1965, 470 pages, \$24.00

*Optical Pumping: An Introduction*, R. A. Bernheim, ed., Benjamin, 1965, 272 pages, \$9.00

*The Use of Radioactive Isotopes in Tuberculosis Research*, (proceedings of the International Symposium held in May, 1963), J. F. Pasquier, L. Trnka, and R. Urbancik, eds., Pergamon, 1965, 178 pages, \$10.00

*The Propagation of Gamma Quanta in Matter*, O. I. Leipunskii, B. V. Novozhilov, and V. N. Sakharov, Pergamon, 1965, 222 pages, \$15.00

*Personnel Dosimetry for Radiation Accidents*, International Atomic Energy Agency, 1965, 714 pages, \$14.00

## LETTER

Letters, unlike papers and technical notes, are for the rapid publications of both fact and opinion on technical subjects and are therefore not subject to the referee review process.



#### MORE ON STACK RELEASE PROCEDURES

Dear Sir,

With reference to Mr. Brasher's letter (*Nuclear Applications*, October 1965) and Mr. Hull's letter (*Nuclear Applications*, February 1966), it should be explained that the G E T R was one of the early test reactors licensed under stack effluent criteria based on concentration limits. Stack isolation occurs when effluent radioactive gas concentrations reach  $10^{-4} \mu\text{C}/\text{cm}^3$ . In view of this, the advantages for effluent dilution, described in the original article on "The Evaluation and Measurement of Reactor-Safety Performance" (*Nuclear Applications*, June 1965), are valid. It should be noted that, at this concentration and a maximum stack flow of 18 000 ft<sup>3</sup>/min, the effluent re-

lease rate is 850  $\mu\text{C}/\text{sec}$ . At present, we are relicensing G E T R for 50 MW operation, and the effluent criteria will be based on diffusion techniques. These calculations show that a safe release rate is 400 000  $\mu\text{C}/\text{sec}$ . It is evident, therefore, that our present release criteria are very conservative and that, in principle, we are not "Circumventing" release limits. Based on current release criteria, Mr. Hull's comment is entirely correct.

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