The book's ten chapters describe the physics of pulsed reactors and boosters at a comfortable level. There is adequate description of how the machines work, agreeable curves extracted from simple analytical models, and an adequate index and bibliography. I would guess that the manuscript was completed in 1973 or 1974. It was published in the Soviet Union in 1976.

It is hard to make a very strong case for these machines as indispensable research tools. For example, the "pure" pulsed reactor has too long a pulse width (microseconds) to compete with accelerator sources of neutrons for the affection of nuclear physicists. The pulsed reactor does produce fluxes of gamma rays and neutrons that differ from those characterizing the steady reactor, and so is a helpful tool in studies of radiation effects. The competition has not changed much since Shabalin closed his manuscript. The outstanding pulsed neutron facility of the 1980s will be the Los Alamos National Laboratory WNR facility. There, intense bursts of thermal and epithermal neutrons will be generated by spallation in heavy-metal targets. The primary particles will be protons drawn from a storage ring in nanosecond pulses. The ring, in turn, is fed by a linear accelerator.

But, though they may not win out in the end, the DRAGON's progeny possess a certain charm. The machines almost make us smile. One uses "jumping fuel elements" as a quenching mechanism, another features nylon "bullets," shot through the core, 15 per second. It is reported that students find working with pulsed reactors "exciting," and it is claimed that simple computation models do very nicely. Certainly, the small, pulsed reactor belongs to a simpler time of neutron research. Shabalin captures the flavor of that era very well.

Noel R. Corngold is professor of applied physics at The California Institute of Technology and fellow of the American Nuclear Society. He is a refugee from the east, having been educated at Columbia and Harvard, and having spent a happy 15 years at Brookhaven National Laboratory. He has struggled with reactor physics for some time and enjoys transport theory of all sorts.

Computer Techniques in Radiation Transport and Dosimetry

Editors	Walter R. Nelson and Theodore M. Jenkins
Publisher	Plenum Press (1980)
Pages	521
Price	$55.00
Reviewer	John W. Poston

This book presents the Proceedings of the Second International School of Radiation Damage and Protection, held in Erice, Sicily, on October 25–November 3, 1978. The text is organized into a series of lectures, presented by invited speakers, on low-energy neutron and gamma-ray programs and their applications; electromagnetic cascade shower programs and their applications; hadronic cascade programs and their applications; and unfolding methods and spectrum analysis. In addition, two introductory lectures and three papers by participants at the school are included.

In my opinion, this text is a very useful one for persons interested in a review of the field as it stood in 1978. The introductory lecture on the physics of radiation transport is excellent, as is the lecture on the physics of electromagnetic cascade (both presented, incidentally, by the same author). The speakers have attempted to discuss the existing programs and their application to specific problems. This discussion-application format is extremely useful to the reader in that similar applications immediately leap to mind. In addition, these presentations give the reader an idea of the limitations of each code.

There are, however, two criticisms of this text that must not escape mention. First, there is a time lag of about two years between the meeting and publication of the volume. This detracts somewhat from the attitude that the presentations are state-of-the-art. Second, several of the papers are only one-page summaries and one is simply a page of references. This was unfortunate, for some of these summaries were the papers in which I had the most interest.

With these two criticisms in mind, the book can still be recommended, especially for those who want a sophisticated survey of the field. The book was relatively free from typographical errors and it was extremely easy to read. I hope that additional publications on this subject will be forthcoming on a regular basis.

John W. Poston is associate professor at the School of Nuclear Engineering at the Georgia Institute of Technology. He has been at Georgia Tech since January 1977, teaching courses and supervising research in various aspects of radiation protection. Before coming to Georgia Tech, he was a staff member in the Health Physics Division at Oak Ridge National Laboratory. In this capacity, he was involved in research on both internal and external dosimetry. Dr. Poston is Chairman of American National Standards Institute Committee N-13 on Radiation Protection, is a member of three National Committee on Radiation Protection and Measurement Scientific Committees, serves as a member of the Society of Nuclear Medicine MIRD Committee, and is on the International Commission on Radiological Protection Task Group on Dose Calculations. He is coauthor of Principles of Nuclear Radiation Detection.

Commonsense in Nuclear Energy

Authors	Fred Hoyle and Geoffrey Hoyle
Publisher	W. H. Freeman and Company
Pages	88 pages, 15 illustrations
Price	$7.00 (Hardbound), $3.95 (Paperbound)
Reviewer	Harry W. Parker

The most certain way to bring nuclear disaster upon the world is not to continue efficient development of

nuclear power, including the breeder reactor. This opinion of the authors, and others, follows from their prediction that without rapid deployment of nuclear power, the international energy crisis will become so critical that nations presently possessing nuclear weapons will be drawn into using them.

The book summarizes data regarding the environmental and safety advantages of nuclear power in comparison to coal, solar, and biomass for pro-nuclear laypersons and professionals. They cite references showing that per unit of energy made available, nuclear power is expected to cause only one-twentieth the number of injuries that will be associated with the soft, renewable energy resources. An interesting parallel is drawn regarding the risk of living near a nuclear reactor, and the greater risk of living on the downstream side of dams, which fail at a rate of about one per year worldwide. The authors state that "If the nuclear standard of a 'maximum credible accident' were introduced into hydropower effectively all the dams throughout the world would have to be immediately dismantled."

The near antagonistic attitude the book shows toward persons who question the desirability of nuclear power limits its effectiveness in convincing critics of nuclear power regarding its desirability.

This reviewer's enthusiasm for the book was considerably dampened by Chap. 10. Devoting a full chapter to natural gas of inorganic origin from great depths in the earth as proposed by Professor T. Gold did not demonstrate careful selection of data for laypersons. Gold's university was not identified, nor were references to his publications cited, as the authors did for much of the information they used. They clearly state that his theory is unorthodox, but they still think that "there is a good chance that it is correct." In this reviewer's opinion, the authors' lack of discrimination displayed regarding inorganic natural gas leaves uncertainty in the mind of the reader regarding the remainder of the book, unless the reader is already informed in those areas.

The book is recommended for reading by persons involved in nuclear power, but it is not recommended as an effective pro-nuclear statement for a skeptical public, or as a source of information to be used uncritically by laypersons.

Harry W. Parker joined the chemical engineering faculty of Texas Tech University, Lubbock, Texas, as an associate professor in 1970. He was promoted to professor in 1977. In September 1979, he received leave from Texas Tech to serve for two years with the Engineering Societies Commission on Energy in Washington, D.C.

Previously, Dr. Parker did energy-related research for 14 years for Phillips Petroleum Company. During this time he was inventor on over 80 U.S. patents largely in the field of enhanced oil recovery. His current research interests include enhanced petroleum production methods, evaluation of processes for synfuels from coal and oil shale, and comparative economics of renewable and fossil energy sources. Dr. Parker received his BS degree in chemical engineering from Texas Tech in 1953 "with honors" and immediately continued his education at Northwestern University, earning his MS and PhD degrees in chemical engineering in 1954 and 1956, respectively.

CORRIGENDUM

The papers in the series entitled "Realistic Estimates of the Consequences of Nuclear Accidents," which appeared in the May 1981 issue of *Nuclear Technology*, were erroneously identified in the Table of Contents as Technical Papers. They should have been NT Letters, since the review process was not as formal as that required for papers.