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