defer civilian nuclear fuel reprocessing. The participants in this seminar, from 17 countries and 3 international bodies, met to exchange past experiences and to consider future methods for the short-, intermediate-, and long-term storage of spent fuel elements.

Twenty-one papers were presented in four technical sessions. Most of the papers were followed by brief but valuable discussion periods in which the authors answered questions from the audience. A fifth session consisted of summaries of the four technical sessions followed by informative and sometimes lively panel discussions.

The papers and the country or international organization of origin are as follows: "Spent Fuel Storage-Philosophies and Experience," Germany; "Spent Fuel Storage-The Magnitude of the Problem," OECD: "U.S. Spent Fuel Policy-A Status Report," U.S.; "Prospects of Spent Fuel Management in Spain," Spain; "NRC Analysis of the Environmental Impacts and Licensing Policies for Expanded Spent Fuel Storage in the United States," U.S.; "The U.S. Department of Energy Program to Support the Design and Licensing of a Spent Fuel Storage Basin," U.S.; "An International View of Spent Fuel Storage as One Aspect of Fuel Cycle Safety," OECD; "La Surete des Installations Francaises de Stockage des Elements Combustibles Irradies de la Filiere à Eau Legere," France; "Study on Separate Spent Fuel Storage Facility," Finland and Sweden; "A Central Spent Fuel Storage in Sweden," Sweden; "Safety Aspects on the Design of a Swedish Spent Fuel Storage Facility," Sweden; "Evaluation of the Problems Associated with ENEL's Irradiated Fuel Management," Italy; "Cost and Implications of a Middle-Term Program for Storage of Spent Fuel in a Nuclear Power Station (BWR)," Spain; "Comparison of Concepts for Independent Spent Fuel Storage Facilities," Austria; "Expansion of Capacity of Spent Fuel Pools and Associated Problems," Spain; "Design Bases for U.S. Department of Energy Storage Basin," U.S.: "Behaviour of Spent LWR Fuel Assemblies," Germany: "Impacts of Reactor-Induced Defects on Spent Fuel Storage," U.S.; "Normal and Compact Spent Fuel Storage in Light Water Reactor Power Plants," Germany; "The Encapsulation of Magnox Type Fuel Elements for Extended Storage in Cooling Ponds," United Kingdom; and "Neu-tron Analysis of Spent Fuel Pools," Spain. The papers, 20 in English, 1 in French, are almost

The papers, 20 in English, 1 in French, are almost uniformly clear and concise, well written and well illustrated. Together they constitute an excellent introduction to almost all aspects of spent fuel storage: experience with stored fuel for two decades, magnitudes of future storage requirements in the U.S. and in Europe, philosophies of various governments, safety and environmental aspects, licensing of facilities, designs of at-reactor pools and away-from-reactor pools and dry-storage facilities, specific technical problems such as criticality, temperature, and radioisotope-release limitations, and estimated costs of at-reactor storage and away-from-reactor wet and dry storage.

Anthony Foderaro (PhD, physics, University of Pittsburgh) is professor of nuclear engineering at the Pennsylvania State University. He has just completed his twenty-fifth year in the nuclear power field with experience in industrial research and design followed by teaching, academic research, and consulting. He is the author of two books and co-author of three more.

NUCLEAR TECHNOLOGY VOL. 49 AUG. 1980

## Energy Dictionary

Author	Daniel Hunt
Publisher	Van Nostrand Reinhold Ltd. (1979).
Pages	518
Price	\$22.50
<i>Reviewer</i>	James G. McCray

The *Energy Dictionary* was compiled and written with the concept of collecting all of the important terms associated with the educational disciplines involving all aspects of energy and energy systems. In addition to the more than 4000 definitions and 320 charts and figures, there is a short preface entitled "Energy Overview," which strongly reflects the current administration's concepts of a comprehensive and effective national energy plan.

In that many of the definitions are specific to a particular discipline or may have different definitions in different disciplines, I believe the dictionary would be more effective if it had been organized into separate sections by energy categories, as was done in the bibliography.

The major value of this book is that of a quick reference for non-technical people working in the general energy area or technical people not working in their area of expertise.

James G. McCray, acting director of the Nuclear Fuel Cycle Research Program at the University of Arizona, is a retired U.S. Army officer who has had a great variety of engineering experience including civil, electrical, mechanical, and nuclear. He has spent the last seven years working with nuclear engineering problems and currently is involved in both high- and low-level nuclear waste management research.

## **Advances in Nuclear Physics**

Editors	J. W. Negele and Erich Vogt
Publisher	Plenum Press (1979)
Pages	420
Price	\$37.50
Reviewer	D. A. Bromley

This volume is the eleventh in a now classic series on advances in nuclear physics; the series was originally edited by Michel Baranger and Erich Vogt; in recent years John Negele has replaced Baranger.

The volumes typically contain five or six definitive review articles on some topic in modern nuclear physics prepared by internationally recognized experts in the field. As such, the series represents one of the most useful reference sources for the kind of review that is essential not only for those working in the specific fields covered, but