

## **Environmental Hazards: Radioactive Materials and Wastes: A Reference Handbook**

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Miller, E. Willard and Ruby M. Miller. *Environmental Hazards: Radioactive Materials and Wastes; A Reference Handbook*. Santa Barbara, CA: ABC-CLIO, 1990. 298 p. US\$39.50 hardbound ISBN: 0-87436-234-2.

E. Willard Miller and Ruby M. Miller have put together a useful sourcebook on controversial problems surrounding the use and disposal of radioactive substances in the United States and abroad. The Millers have published other similar information sourcebooks on topics such as air pollution and doing business in Latin America. The present volume, one of ABC-CLIO's series Contemporary World Issues, describes the nature of radiation and its uses, enumerates the national and international legislative response to radiation issues, and provides sources for further study. These sources include organizations, books, government documents, articles, films, and journals.

Miller and Miller begin with an introduction to the benefits and problems resulting from human use of radiation. They also describe natural sources of radiation such as radon and cosmogenic radionuclides, and devote a large part of the opening chapter to health effects of both natural and human-generated radiation. Several specific issues are explained briefly, including emergency planning and preparedness for a nuclear accident, transportation of nuclear material, and disposal methods for nuclear wastes. Five short chronologies (Evolution of Atomic Physics; Nuclear Weapons Development; Nuclear Power; Legislation, Regulations, and Treaties; and Health and Safety Procedures and Standards) add an historical perspective. To round out the narrative portion of this book, the Millers enumerate and explain the major acts of the United States Congress which determine atomic energy policy. They also provide information on international agreements and treaties limiting nuclear weaponry or encouraging peaceful use of atomic energy. A glossary of radiation terminology with short definitions is appended.

The second half of this book is devoted to helping the researcher find more information either via contact with relevant organizations or through further reading. Both private and public U.S. associations are listed, as are international organizations. Each entry contains name, address, membership, meetings, purpose, activities, and publications. Telephone numbers, fax numbers, or email addresses are not given. The next section is a lengthy annotated bibliography of reference works (primarily bibliographic) and other books on radiation problems. The other books range in date from the early 1960s to the mid- 1980s, with a preponderance published in the eighties. The annotations discuss each book's subject matter and special features but don't note audience level. The bibliography continues with an unannotated list of journal articles and government documents. Although the target audience for this portion of the bibliography is not stated, most of the articles seem to come from professional and scholarly journals. Following is a further list of selected relevant journals in the social sciences and environmental sciences. Each journal entry includes title, editor, year first published, frequency, ISSN, special features, and address. There is no statement of audience level, but again, the list seems to be limited to professional and scholarly titles. To round out the search for further information, the Millers include an annotated list of films, filmstrips and videocassettes on basic atomic physics, nuclear technology, radiation, nuclear weapons and warfare, nuclear energy, accidents,

and other topics. These titles date from the early 1960s to the mid 1980s; most are from the mid 1970s to the early 1980s.

Although the Millers don't explicitly say so, this book seems to be aimed at a relatively well-educated population interested in exploring nuclear issues in order to become better informed or to write an undergraduate paper on some aspect of radiation. E.W. Miller is a member of the Geography Department and R.M. Miller is a Librarian, both at Pennsylvania State University. They bring to this joint effort their complementary professional expertise in both explaining complex issues understandably as well as facilitating the hunt for more specific and in-depth information. The content seems quite well laid-out and easy to access with each chapter organized in an intuitively sensible fashion and with a useful index. However, much of the association and bibliographic material might have to be checked for currency through a search of such sources as Gale's Encyclopedia of Associations, Ulrich's International Periodicals Directory, PAIS International, or Environment Abstracts, all of which are usually available in larger public, undergraduate, or college libraries. This book is an excellent tool for those searchers who wish to browse a wide variety of problems and issues concerning radioactive materials and wastes before settling on a more specific topic to pursue.