Management, has examined the scientific basis for risk assessment and management of uranium mill tailings and issued this final report containing a number of recommendations. Chapter 1 provides a brief introduction to the problem. Chapter 2 examines the processes of uranium extraction and the mechanisms by which radionuclides and toxic chemicals contained in the ore can enter the environment. Chapter 3 is devoted to a review of the evidence on health risks associated with radon and its decay products. Chapter 4 provides a consideration of conventional and possible new technical alternatives for tailings management. Chapter 5 explores a number of issues of comparative risk, provides a brief history of uranium mill tailings regulation, and concludes with a discussion of choices that must be made in mill tailing risk management.

METHODOLOGY/Other

Wartenberg, D., and R. Simon. 1995. Comment: Integrating epidemiologic data into risk assessment. American Journal of Public Health. 85(4):491-493. April, 1995.

UNCERTAINTY/Commercial

Mendez Jr., W.M. Date: 1990. Title: Recent Developments in Health Risks Modeling Techniques Applied to Hazardous Waste Site Assessment and Remediation. Corporate Author: Ebasco Environmental, Inc., Arlington, VA. Pub: CONF-9010166; Waste Management and Environmental Restoration, Proceedings of the 1990 DOE Model Conference, Oak Ridge, TN, October 29-November 2, 1990, 343 pp.; (1 p.) Abstract: Remediation of hazardous and mixed-waste sites is often driven by assessments of human health risks posed by exposures to the hazardous substances released from these sites. The methods used to assess potential health risk involve, either implicitly or explicitly, models for pollutant releases, transport, human exposure and intake, and characterizing health effects. Because knowledge about pollutant fate and transport processes at most waste sites is quite limited and data costs are quite high, most of the models currently used to assess risk that are endorsed by regulatory agencies are quite simple. The models employ many simplifying assumptions about pollutant fate and distribution in the environment, human pollutant intake, and toxicologic responses to pollutant exposures. An important consequence of data scarcity and model simplification is that risk estimates are quite uncertain. Estimates of the magnitude uncertainty associated with risk assessment has been very difficult. A number of methods have been developed to address the issue of uncertainty in risk