

Notice of Proposed Rulemaking

Limits on Air Pollution from Uranium Mill Tailings

EPA limits emissions of hazardous air pollutants under the authority of the Clean Air Act. EPA's "National Emission Standards for Hazardous Air Pollutants (NESHAPS)" (40 CFR Part 61) set limits on hazardous air pollutants from different activities and facilities. Subpart W of 40 CFR Part 61, "National Emission Standards for Operating Uranium Mill Tailings," limits radon emissions from tailings at operating uranium mills. EPA originally issued Subpart W in 1989 (54 FR 51703, December 15, 1989).

Current Standards for Uranium Mill Tailings

The Subpart W standards limit the radon releases and doses to the public from the normal operations of facilities licensed to manage uranium byproduct materials during and following the processing of uranium ores. The facilities are commonly known as uranium mills and the byproducts as tailings. Subpart W currently has different requirements for byproduct material impoundments built before 1989 and those built afterward. Pre-1989 impoundments are subject to a numeric limit on radon emissions. Post-1989 facilities must control radon limits through one of the two following work practices:

- 1 No more than two impoundments may operate at any time and each cannot be larger than 40 acres. Disposal of tailings takes place in phases.
- 2 Disposal of tailings takes place continuously, and no more than 10 acres of tailings may be uncovered at any time.

The Rulemaking Process: From Laws to Environmental Standards

An environmental law is enacted when Congress passes it and the President signs it. Specific laws make EPA responsible for writing regulations which specify what must be done to obey the law. Many environmental regulations set standards that limit the amount of a hazardous material that can be discharged into the environment.

After an environmental law is enacted, EPA conducts a scientific analysis of the issues and, if necessary, proposes new or revised regulations in a *Notice of Proposed Rulemaking (NPRM)*. The proposal is listed in the *Federal Register* so that members of the public can consider it and send their comments to us. EPA will consider the comments received as it finalizes the regulations. The comments and EPA's response to them become part of the public record.

Final regulations are published in the *Federal Register* as a *Final Rule*, and added to the *Code of Federal Regulations (CFR)*.

How You Can Participate

The public will have 90 days to submit comments on this *Notice of Proposed Rulemaking* starting the day of its publication in the *Federal Register*. All submissions will become part of the official public record for this rulemaking. Be sure to identify your submission by Docket ID No. EPA-HQ-OAR-2008-0218. You can submit comments by email, by regular mail, online or in person. Detailed instructions for submission of comments are in the *Notice of Proposed Rulemaking (NPRM)*. A link to the text is provided at: www.epa.gov/radiation

Why Revise the Standards?

The Clean Air Act Amendments of 1990 require EPA to review the standards of Subpart W periodically. After completing a recent review, EPA concluded that revisions were needed to clarify definitions and to be more specific about what kind of tailings impoundments are subject to the standard. EPA also concluded that requirements for generally available control technology (GACT) or management practices are the best means to control radon emissions from tailings piles. GACT are commercially available methods, practices and techniques for operation and maintenance of emissions control systems.

Key Changes in the Proposed Rule

Definition of Uranium Recovery Facilities: The proposed rule would apply to all operating uranium recovery facilities, which are defined as those facilities that manage uranium byproduct material or tailings, including conventional uranium mills, in-situ leach recovery facilities, and heap leach facilities. “Operating” means that an impoundment is being used for the continued placement of uranium byproduct material or tailings, or is in standby status.

GACT for All Conventional Impoundments, Regardless of Age: In the proposed rule, EPA would no longer have different standards for impoundments constructed before and after 1989. EPA is proposing that the work practices for impoundments built after 1989 would be required as GACT at all conventional impoundments, regardless of their age. Studies of the work practices have shown that they are effective in controlling radon releases to the environment. EPA proposes dropping the numeric radon standard for pre-1989 facilities because it is not needed when the GACT controls are in place.

GACT for Non-Conventional Impoundments: “Non-conventional” impoundments (commonly known as evaporation or holding ponds) hold uranium byproduct materials in ponds that are covered by liquids. In this proposed rule, EPA would require control of radon emissions by covering the tailings in the ponds with at least one meter of liquid at all times.

GACT for Heap Leach Piles: EPA is proposing to require operating heap leach piles to maintain a moisture content of 30 percent at all times. Studies have shown that 30 percent moisture content keeps radon emissions from heap piles at acceptable levels.

Construction Requirements for All Impoundments:

The current Subpart W standard references other regulations that require impoundments to be designed, constructed and installed in a way that protects adjacent soils and waters. Specifications include top and bottom liners as well as a leachate collection and removal system. In the proposed rule, these requirements would apply to all types of uranium recovery facilities.

Recordkeeping Requirements: Under the proposed rule, uranium recovery facilities would have to maintain records to demonstrate compliance with requirements for impoundment construction, liquid coverage of ponds, and moisture content of heap leach piles.

EPA and Uranium Extraction Operations

EPA’s mission is to protect human health and the environment. The Agency sets limits on the amount of radioactivity that can be released into the environment. EPA enforces the Clean Air Act requirements at Subpart W. The Nuclear Regulatory Commission (NRC) has regulatory responsibility for licensing and operation of uranium extraction facilities and other commercial facilities that use radioactive materials.

If enacted, this proposed rule would not relieve the owner or operator of the uranium recovery facility of the monitoring and maintenance requirements of their operating license issued by the NRC or its Agreement States.

Other Regulatory Agencies

U.S. Nuclear Regulatory Commission (NRC): The NRC regulates the civilian uses of nuclear materials in the United States by licensing facilities that possess, use or dispose of nuclear materials; establishing standards; and inspecting licensed facilities.

States: Most states have agencies responsible for regulating the use of radiation and radioactive emissions. Some states operate under agreement with the NRC to license and regulate certain types of radioactive materials.