EPA’S Clean Air Act Requirements: Uranium Mill Tailings Radon Emissions Rulemaking

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Presentation to
Uranium Contamination Stakeholders Workshop
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Overview

- EPA regulatory requirements for operating uranium mill tailings (Subpart W)
- Status update on Subpart W activities
- Outreach/Communications
EPA Regulatory Requirements for Operating Uranium Mill Tailings (Clean Air Act)

- 40 CFR 61 Subpart W requirements apply to facilities licensed to manage uranium byproduct materials during and following the processing of uranium ores
- Limit on number/size of impoundments
  - Phased Disposal – lined impoundments no more than 40 acres, no more than two in operation at any time
  - Continuous Disposal – tailings are dewatered and immediately disposed, no more than 10 acres uncovered at any time
Subpart W Requirements (continued)

- Radon emission standard of 20 pCi/m²/sec -- annual reporting requirements, notification in advance of testing
- The radon emission standard is for existing sources only (existing before 12/15/89)
- See [http://www.epa.gov/radiation/neshaps/subpartw/index.html](http://www.epa.gov/radiation/neshaps/subpartw/index.html) for more information
Uranium Recovery Methods

Surface Mill

Heap Leach

In Situ Leach (ISL)

PRODUCTION ZONE MONITOR WELL
OVERLYING AQUIFER MONITOR WELL
UNDERLYING AQUIFER MONITOR WELL
INJECTION WELL
PRODUCTION WELL
PRODUCTION ZONE MONITOR WELL
OVERLYING AQUIFER MONITOR WELL
UNDERLYING AQUIFER MONITOR WELL

Uranium Ore Zone

Idealized ISL Operation

PRODUCTION ZONE MONITOR WELL
OVERLYING AQUIFER MONITOR WELL
UNDERLYING AQUIFER MONITOR WELL

Injection Well
Uranium, Lixiviant, Groundwater
Out

Injection Well
Lixiviant In
Uranium Mill Tailings  In-Situ Leach Impoundments
Status Update on Subpart W Activities
Status of Subpart W Review Activities

- We conducted historical research on the risk assessment work originally done in support of the 1989 standard
- We completed a survey of existing technologies
- We requested that ISL facilities provide radon flux data from their evaporation ponds
- We are now in the process of performing new risk assessments at existing uranium mills and ISL facilities
Communications Plan

• EPA is committed to maintaining an open and transparent rulemaking process

• Objectives:
  • Inform stakeholders of potential changes in EPA’s Subpart W requirements
  • Give stakeholders an opportunity to provide feedback

• Audiences:
  • Tribes
  • States
  • Offices/Regions within EPA
  • Other Federal Agencies: NRC, DOE, BLM, others
  • Mining companies
Communications Plan

• Strategies:
  • Develop clear messages and materials to explain the potential amendments to Subpart W
  • Educate stakeholders by using communications tools to provide easy-access to information
  • Work with stakeholder representatives and EPA regional staff to identify additional audiences and methods of dissemination
  • Communicate a timely and consistent message to stakeholders (Industry, Public, Tribes, States, other government agencies)
Outreach

• Holding stakeholder meetings to inform and receive input
  • on City, CO – June 2009
  • Rapid City, SD – October 2009
  • Gallup, NM – November 2009
  • White Mesa, UT – May 2010
  • Denver, CO – May 2010
  • Tuba City, AZ – September 2010
Outreach

• National webinar held June 2010
• Established a dedicated web site to act as an information outlet
  • Site contains current and historical rulemaking documents, presentations, contact information, useful links
Outreach

• Quarterly conference calls to answer stakeholder questions
• Next call – October 5, 2010 – 11:00 AM EDT
• Call in number is 1-866-299-3188. You will be prompted for a conference code, which will be 2023439563. After entering the conference code press the # key and you will then be placed into the conference call
• Public participation by e-mail:
  • subpartw@epa.gov
Questions?