



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

Reid J. Rosnick Environmental Protection Agency Radiation Protection Division (6608J) Washington, DC 20460 rosnick.reid@epa.gov Presentation to Navajo Uranium Contamination Workshop November 3, 2009

# Overview

- EPA regulatory requirements for operating uranium mill tailings (Subpart W)
- Status update on Subpart W activities
- Outreach/Communications

**ARCHIVE DOCUMENT** 

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#### 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



## EPA Regulatory Requirements for Uranium Operations (Clean Air Act)

Subpart W Requirements (continued)

- Radon emission standard of 20 pCi/m<sup>2</sup>/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 for more information



# **Uranium Recovery Methods**

#### **Conventional methods – Surface mill**



#### Unconventional methods-- In Situ Leaching (ISL)



#### **Unconventional methods-- Heap leaching**





<sup>•</sup> INJECTION WELL

- PRODUCTION WELL
- ▲ PRODUCTION ZONE MONITOR WELL
- OVERLYING AQUIFER MONITOR WELL
- UNDERLYING AQUIFER MONITOR WELL



# **JS EPA ARCHIVE DOCUMENT**

### Uranium Mill Tailings In-Situ Leach Impoundments







## Uranium Recovery Facility Applications/Restarts/Expansions

- Total applications already received (8/2009) by NRC – 8
- Total new applications expected 17
- Total restart/expansion applications 9
- Wyoming 15
- New Mexico 4
- Nebraska 4
- South Dakota 1
- Arizona 1
- Nevada 1 (?)



# **Status Update on Subpart W Activities**



## Status of Subpart W Review Activities

- Per Clean Air Act Amendments of 1990, EPA is obligated to review/revise Subpart W
- A workgroup has been established
  - Members from across the Agency
  - Represent ORIA, OGC, ORD, OSWER, OECA, OPEI, OW, Regions 6, 7, 8 and 10



# Status of Subpart W Review Activities

- We are conducting historical research on the risk assessment work originally done in support of the 1989 standard
- We have begun a survey of existing technologies
- Office of Enforcement and Compliance Assurance has sent information request letters to numerous uranium recovery facilities
- Answers better inform the workgroup of the universe of facilities, and the types of uranium recovery processes that exist
- We have also requested that ISL facilities provide radon flux data from their evaporation ponds



# **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, compelling 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
  - Canon City, CO June 2009
  - Rapid City, SD October 2009
  - Gallup, NM November 2009
  - Blanding, UT Spring 2010
- Establishing a dedicated web site to act as an information outlet
- National webinar planned for early 2010
- Establishing quarterly conference calls to answer stakeholder questions



# Thank you for your attention

