



# ***EPA'S NESHAP Subpart W Activities***

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# Overview

- EPA regulatory requirements for operating uranium mill tailings (Subpart W)
- General requirements applicable to Subpart W
- Status Update on Subpart W Activities
- 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
  - Preconstruction approval, 40 CFR 61.07
  - Impoundment construction and operation requirements in 40 CFR 192 cross referenced in Subpart W
  - 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)
- All operators must comply with 40 CFR 192.32(a)  
See  
<http://www.epa.gov/radiation/neshaps/subpartw/rule-making-activity.html> for more information



# EPA Regulatory Requirements for Underground Uranium Mining (Clean Air Act)

- 40 CFR 61.20, Subpart B regulations limiting radon emissions from underground uranium mines include:
  - Applies to 10,000 tons/yr ore production, or 100,000 tons/mine lifetime
  - Ambient air radon standard not to exceed 10 mrem/yr to any member of the public-compliance determined with COMPLY-R, or equivalent, approved code
  - Annual reporting requirements – by 3/31 each year, emissions calculations for the year, monthly if not in compliance
  - Record keeping requirements: Five years



# General Requirements Applicable to Subpart W

- Subpart W and B facilities are subject to the general requirements of 40 CFR 61.01 - .19
  - Application for construction and modification
  - Notification of startup
  - Compliance with monitoring/maintenance requirements
- Subpart W facilities are subject to the design and ground-water requirements of 40 CFR 192.32(a)
  - Ground-water protection standards
  - Impoundment design requirements similar to hazardous waste facilities



# Status Update on Subpart W Activities



# Status of Subpart W Review Activities

- Major emphasis on risk assessments
- Purpose is to update risk numbers used in 1989 rulemaking to reflect state of the science
  - Evaluate impacts to the public
  - Also focus on Tribes, EJ communities, children's health
- All operating tailings piles and ISL's
- Stylized scenarios will also be developed for representative future sites
- Scenarios would include varied climate, heap leach





# Status of Subpart W Review Activities

## Choosing a Risk Assessment Model

- 1989 rule used AIRDOS to calculate dose and risk
- Determination which model is appropriate
- Candidate models include CAP88, GENII, RESRAD, MILDOS-AREA, MEPAS, GASPAR
- We welcome any other candidates you may know about



# Status of Subpart W Review Activities

- Preliminary screening of candidate codes
- Once defined, the code will be used to determine individual and population dose and risk
- Some evaluation criteria include:
  - Exposure pathways modeled
  - Dose factors used
  - Risk factors used
  - Source term calculation
  - Input parameter sensitivity analysis
  - Verification/validation/documentation
  - Ease of use/user friendly



# Status of Subpart W Activities

- Risk estimates will be developed for each Subpart W facility
- Estimates will be presented on a facility-by-facility basis, the same format used in the 1989 rulemaking
  - Source category, radionuclides released, existing controls
  - Bases for the risk estimate
  - Results of the dose and risk calculations
  - Description of supplementary emissions controls and cost effectiveness in reducing dose and risk



# Communications



# Communications

- We have developed a website dedicated to Subpart W which provides internet access to background information already compiled by EPA
- Provides public access to all non-privileged records, especially technical documents, as well as useful links to sites relevant to Subpart W
- <http://www.epa.gov/radiation/neshaps/subpartw/rule-making-activity.html>



# Communications

- We are conducting quarterly conference calls to brief stakeholders on the review of Subpart W
- Next Call is scheduled for Tuesday, July 6, 2010 at 11:00 AM EDT
- Phone-in number – 1-866-299-3188
- Conference Code 2023439563



# Communications

- In addition to in-person regional presentations such as this, we are also holding an internet seminar (webinar)
- Thursday, June 17, 2010 at 11:00 AM, EDT
- Please see the Subpart W website for details on how to access the webinar



# Questions?

