



# *Planned Review of EPA's UMTRCA Based Regulations*

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**NMA/NRC Uranium Recovery Workshop  
July 2, 2009**

# Overview

- **Uranium Mill Tailings Radiation Control Act requirements for EPA**
- **Existing regulations 40 CFR 192**
- **Reason for review and update**
- **Issues for review**
- **Coordination and stakeholder input**



# Uranium Mill Tailings Radiation Control Act (UMTRCA) of 1978, as amended Section 206

- **Title I inactive mill sites administered by DOE**
  - **EPA to develop health and environmental standards for**
    - **“radiological, and**
    - **nonradiological hazards associated with residual radioactive materials located at inactive uranium mill tailings sites”**
  - **Standards shall, “...to the maximum extent practicable, be consistent with the requirements of the Solid Waste Disposal Act, as amended” (now RCRA)**
  - **“The Administrator may periodically revise any standard promulgated...”**



# Uranium Mill Tailings Radiation Control Act Requirements for EPA

- **Title II and future NRC licensed sites:**
  - **Required EPA to develop standards “...for the protection of the public health, safety, and the environment from**
    - **radiological and nonradiological hazards associated with the processing, possession, transfer, and disposal of byproduct material...**
    - **at sites at which ores are processed primarily for their source material content or which are used for the disposal of such byproduct material”**



# Uranium Mill Tailings Radiation Control Act Requirements for EPA

**(Title II and future NRC licensed sites)**

- **EPA standards “...consistent with the standards required under subtitle C of the Solid Waste Disposal Act (Now RCRA), as amended, which are applicable to such hazards”**
- **“*Provided, however,* that no permit issued by the Administrator is required under this Act or the Solid Waste Disposal Act, as amended, for the processing, possession, transfer, or disposal of byproduct material, as defined in section 11e.(2) of this Act”**
- **“The Administrator may periodically revise any standard...”**



# Uranium Mill Tailings Radiation Control Act Requirements for EPA

- **Before the promulgation of any rule pursuant to this section, the Administrator shall:**
  - **“publish, the proposed rule in the Federal Register, together with a statement of the research, analysis, and other available information in support of such proposed rule...”**
  - **Provide a period of public comment of at least thirty days for written comments with a hearing thereafter**
  - **“The Administrator shall consult with the Commission and the Secretary of Energy before promulgation of any such rule”**



# Uranium Mill Tailings Radiation Control Act Requirements for EPA

- **UMTRCA provides for judicial review of the rule by any person filing a petition for review within 60 days after rule promulgation to Federal Appeals Court, judgment of the court shall be final, subject to judicial review by Supreme Court. Any rule...shall not take effect earlier than 60 days after promulgation**
- **“Implementation and enforcement of the standards promulgated... shall be the responsibility of the Commission in the conduct of its licensing activities under this Act...”**



# Existing Regulations 40 CFR 192

## **Health and Environmental Protection Standards for Uranium and Thorium Mill Tailings**

- **Subpart A. Standards for the control of residual radioactive materials from inactive uranium processing sites**
- **Subpart B. Standards for cleanup of land and buildings contaminated with residual radioactive materials from inactive uranium processing sites**
- **Subpart C. Implementation**





# Existing Regulations 40 CFR 192

- **Subpart D. Standards for management of uranium byproduct materials pursuant to Section 84 of the Atomic Energy Act as Amended**
- **Subpart E. Standards for management of thorium byproduct materials pursuant to Section 84 of the Atomic Energy Act of 1954, as Amended**



# Reason for Review and Update

- **Over 25 years since originally finalized, ~15 years since last update for groundwater protection**
- **Lacks explicit provisions for In Situ Leach/Recovery (ISL/ISR), now principal means of uranium recovery in U.S., and for heap leach facilities**
- **Changes in EPA protective standards for hazardous substances in groundwater and drinking water**
- **Changes in economics of extraction & site remediation**



# Reason for Review and Update

- **Changes in dose factors for radiation/radon, principal scenarios for exposure, subsistence and cultural lifestyles of affected communities, free release of sites (ISL/ISR's) after decommissioning**
- **Potential for uranium extraction in different geographic locations than those considered in risk assessments in previous standards**
- **Court cases negating provision of regulations—EPA concurrence in NRC ACL determinations**



# Issues for Review

- **Are provisions for Title I and other closed sites still protective, and should those sites be grandfathered?**
- **Should radiation, radon release, groundwater and surface water protection standards be revised due to**
  - **new EPA standards,**
  - **updated exposure scenarios and dose factors,**
  - **historical production and economic data?**



# Issues for Review

- **What protective standard should be selected for lead in groundwater?**
- **How to reconcile groundwater protection for ISL/ISR technologies with RCRA C hazardous waste provisions and existing 40 CFR 192 standards and framework?**
- **What may be the impacts on EPA of revising the standards?**



# Issues for Review

- **What standards should be considered that will be useful to industry in planning their future license applications, operations, economics?**
- **How to balance environmental compliance costs and benefits?**



# Issues for Review

- **What clarifying issues that could be included in the revised 40 CFR 192 will be of assistance to DOE and NRC in managing their licensees and sites?**
- **What are the best sources of current information on ISL and mill economics, site restoration and decommissioning?**



# Coordination and Stakeholder Input

- **Federal Agency Coordination**
  - **NRC and DOE**
  - **Other involved agencies (Interior, Agriculture...)**
  - **ISCORS**
  
- **EPA Intra-agency Workgroup**
  - **Regions – 3, 5-10**
  - **HQ – OW, ORD, OSWER, OGC**





# Coordination and Stakeholder Input

- **Industry**
- **States**
- **Tribes – EJ**
- **Environmental and other NGO's**



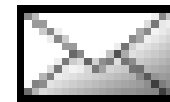
# Coordination and Stakeholder Input

- **Internet site for Public:**

- Members of the public interested in this issue should visit

<http://www.epa.gov/radiation/tenorm/>

and sign up to receive notification of changes to the page at the envelope icon: Get e-mail updates when this information changes.)



# Questions?

