

Docket 70-36

To: File

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Date: January 12, 2005

Subject: Westinghouse Hematite Facility

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Attached for inclusion in the docket are the Westinghouse - Hematite Fuel Cycle Facility Project Decommissioning slides from the 1/6/05 public meeting held in Hematite, Missouri.



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# Hematite Fuel Cycle Facility

## Decommissioning Project

January 6, 2005

# Agenda

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- Introduction
- Deul's Mountain Removal Action
- Buildings and Equipment Removal Action
- Conclusion
- Q/A

# Deul's Mountain

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# Removal Action Primary Objectives

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- Eliminate Deul's Mountain as a potential hazard to human health and the environment
- Minimize potential health hazards to on-site personnel performing removal action
- Remove the interference to facility characterization

# Deul's Mountain Alternatives Evaluated

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- Potential removal alternatives
  1. No action with engineering controls
  2. Relocation/open on-site storage for future evaluation
  3. Relocation and containerized on-site storage
  4. Excavation and off-site disposal
  5. Excavation and consolidation for volumetric clearance for off-site disposal
- Recommended Removal Action Alternative was Alternative 5
- Recent re-evaluation of off-site disposal alternatives in light of implementability/administrative feasibility issues

# Alternative 1 – No Action with Engineering Controls

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- Leave Deul's Mountain in place
- Establish engineering controls
  - Restrictive fencing
  - Warning signs
- Does not meet objectives
  - Impacted soil remains in-place as a potential hazard
  - Dose is not reduced
  - Continued interference with site characterization



# Alternative 2 – Relocation & Open Storage On-site

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- Remove soil in a non-containerized fashion
- Relocate to another area of the site
- Does not meet objectives
  - Impacted soil remains on-site as a potential hazard
  - Dose is not reduced
  - Potential to increase contaminated soil volume

# Alternative 3 – Relocation & Containerized Storage On-site

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- Remove soil and containerize
- Store containers on-site
- Does not meet objectives
  - Potential to increase contaminated soil volume
  - Does not address long-term potential risk of the impacted soil
- Storage will impact ability to perform site-characterization

# Alternative 4 – Excavation & Off-Site Disposal

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- Excavate soil
- Dispose of off-site to permitted disposal in Utah
- Meets objectives
  - Removes potential hazard
  - Reduces dose on-site
  - Allows removal of interference for site characterization

# Alternative 5 – Excavation & Off-Site Disposal through VCD

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- Excavate soil
- Dispose of materials off-site through out-of-state licensed disposal process
- Meets the following objectives:
  - Removes potential hazard
  - Reduces dose on-site
  - Allows removal of interference for site characterization
- Does not meet implementability/administrative feasibility objectives

# Comparison of Alternatives

Alternative	Description	Effectiveness Ranking	Implementability Ranking	Cost Ranking	Post-Action Monitoring Required	Current Off-site Disposal	Probability of Public and Regulatory Acceptance
1	No Action with Engineering Controls	Low	Low	High	Yes	No	Low
2	Relocation and Open Storage On-Site	Low	Low	Low	Yes	No	Low
3	Relocation and Containerized Storage On-Site	High	Medium	Low	Yes	No	Medium
4	Excavation and Off-Site Disposal of Soil	High	High	Medium	No	Yes	High
5	Excavation, Consolidation VCD	High	Low	High	No	Yes	High

# Status of the Evaluation

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- Original evaluation recommended Alternative 5
- New information on implementability caused a re-evaluation of off-site disposal approaches (Alternatives 4 and 5)
- Based upon our re-evaluation, Alternative 4 is the approach that best meets all relevant criteria
- Alternative 4 is now the recommended alternative
  - Excavation and off-site disposal

# Building Removal Action

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# Primary Objectives

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- Protect human health and the environment from releases from equipment and buildings
- Allow characterization of contaminated soil beneath buildings
- Address structures that may interfere with remediation
- Comply with regulatory requirements imposed by NRC and other regulatory authorities



# Building Alternatives Evaluated

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1. No action with engineering controls
2. Equipment removal and building decontamination
3. Equipment removal and building demolition

# Alternative 1 – No Action with Engineering Controls

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- Buildings remain in place
- Periodic surveys
- Engineering controls
  - Security fencing
  - Warning signs
- Does not meet objectives
  - Does not lower dose
  - Does not facilitate characterization of contaminated soil
  - Does not remove interferences to remediation
  - Does not meet regulatory requirements

# Alternative 2 – Equipment Removal/Building Decontamination

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- Leave buildings in place
- Remove equipment for off-site recycling/disposal
- Decontaminate building surfaces for unrestricted use
- Does not meet objectives
  - Does not allow characterization of contaminated soil beneath buildings
  - Does not remove interferences to remediation

# Alternative 3 – Equipment Removal/Building Demolition

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- Remove equipment for off-site recycling/disposal
- Demolish contaminated buildings/off-site disposal of debris
- Leave slabs in place
- Meets objectives
  - Removes source of contamination and reduces dose
  - Allows characterization of contaminated soil
  - Removes interference to remediation

# Building Alternative Comparison

	ALTERNATIVE 1	ALTERNATIVE 2	ALTERNATIVE 3
<b>Effectiveness</b>			
Protects public health	Low	Medium	High
Protects site workers	Low	Medium	High
Protects environment	Low	Medium	High
Complies with ARARs	Low	Medium	High
Useful life	Low	Medium	High
Interference objective	Low	Low	High
<b>Ability to Implement</b>			
Technical Feasibility	n/a	High	High
Admin. Feasibility	Low	Medium	High
<b>Cost</b>	<b>High</b>	<b>Low</b>	<b>Medium</b>

# Recommended Alternative

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- Alternative 3 – Equipment Removal/Building Demolition/Off-site Disposal
  - Highest rated alternative
  - Most protective in removing potential sources and reducing dose
  - Allows for characterization
  - Allows for potential remediation

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# Questions?



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