

Solving Cleanup Challenges Through Risk Reduction

# Overview of Paducah Gaseous Diffusion Plant Waste Disposition Options CERCLA Decision-Making Process

Update to the  
Paducah Citizens Advisory Board

October 18, 2007



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# Purpose of Presentation

- To provide the CAB with an overview of the CERCLA process for decision making
- To provide information on waste generation projections and disposition options
- To explain how DOE will perform a Feasibility Study to support evaluation of waste disposition alternatives for Paducah



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# Project Scope

- Use the CERCLA process to evaluate options for and select a comprehensive sitewide waste disposition strategy
  - Make use of previous work performed at PGDP
  - If data gaps are identified, then data collection activities will be conducted
  - Prepare Scoping Document, RI/FS Work Plan, RI/FS Report, Proposed Plan, and Record of Decision



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# Background

## A large volume of waste is projected to need dispositioning between 2010 and 2040

- Forecast of waste generation required for planning
  - Estimates are based on current data and plans
  - Estimates are adequate to support evaluation of alternatives
  - Estimates will be refined as additional data becomes available
- Estimated volume of waste: 3.7 million yd<sup>3</sup>
  - Projects in Life Cycle Baseline, ~600,000 yd<sup>3</sup> (2010-2019)
  - D&D estimate, 3.1 million yd<sup>3</sup> (2017-2040)
    - Includes D&D volumes of PGDP buildings
    - Soil remediation associated with some of the buildings
- Waste forms include asbestos-containing materials, concrete, construction debris, PPE, scrap metal, and soil



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# Current Waste Forecast\*

<i>Type</i>	<i>Percent</i>	<i>Description</i>
LLW	68.5	Solid waste with low levels of radioactive contamination; majority anticipated to be soils
Sanitary	29.0	Waste meeting the U-Landfill WAC and not regulated under RCRA or TSCA
RCRA	0.4	Wastes with chemically hazardous constituents, such as TCE or lead, meeting criteria as either characteristic or listed hazardous waste
TSCA	0.4	Waste with PCBs at or above 50 ppm
LLW/RCRA	0.9	Waste including both LLW and RCRA
LLW/TSCA	.001	Waste including both LLW and PCBs at or above 50 ppm
LLW/RCRA/TSCA	0.8	Waste including LLW, RCRA, and TSCA material
Total	100.0	~3.7 million cubic yards

*\* Waste estimates may change as more information is developed; current estimates are sufficient to support evaluation of waste disposition alternatives.*



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# Background

- Potential options for a sitewide disposition approach include:
  - Continue disposal on a project-by-project basis (no change from current practice)
  - Off-site disposal
  - On-site disposal
  - Combination of on- and off-site options
- Preliminary cost estimates for the various waste disposition options range from \$700 million to \$1.9 billion



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# Planned CERCLA Documents

- Scoping Document, late 2007 – *Outlines generally what will be done in the Remedial Investigation/Feasibility Study*
- RI/FS Work Plan, May 2008 – *Lays out how the Remedial Investigation/Feasibility Study will be developed; will identify any data gaps that need to be addressed*
- RI/FS Report, May 2009 – *Summarizes relevant information; identifies and evaluates alternatives to be considered*
- Proposed Plan, December 2009 – *Identifies a preferred Remedial Action; will be issued for public review and comment*
- Record of Decision, August 2010 – *Identifies the selected alternative*

*All dates are for projected submittal of D1 documents*



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# CAB Interactions

- Briefings for CAB
  - Project Status Updates
  - Working session briefings
  - DOE presentations at CAB meetings
- Provide D1 documents to CAB
  - Normal protocol will be used in responding to any CAB recommendations



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# CERCLA Public Participation

- CERCLA activities
  - Public notice after completion of Scoping Document
    - Notice informs stakeholders that an Administrative Record File has been established and is available for public inspection
  - Issue Proposed Plan for public review and comment
    - Spring 2010
  - Notice of Availability after Record of Decision is issued



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# Additional Public Participation

- DOE is actively evaluating additional opportunities for improved communications



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# BACKUP INFORMATION

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# Reference Documents

- **Initial Assessment:** *Initial Assessment of Consideration of On-Site Disposal of CERCLA Waste as a Potential Disposal Option at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, DOE/OR/07-1893&D1, July 2000*
- **Seismic Issues:** *Seismic Issues for Consideration in Site Selection and Design of a Potential On-Site Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) Waste Disposal Facility at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, DOE/OR/07-1916&D1, November 2000*
- **Identification and Screening:** *Identification and Screening of Candidate Sites for a Potential Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) Waste Disposal Facility at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, DOE/OR/07-1939&D1, March 2001*
- **Seismic Investigation:** *Seismic Investigation Report for Siting of a Potential On-Site CERCLA Waste Disposal Facility at the Paducah Gaseous Diffusion Plant Paducah, Kentucky, DOE/OR/07-2038&D2, March 2004*



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# Reference Documents (continued)

- **Seismic Investigation: *Seismic Assessment Plan for Siting of a Potential On-Site CERCLA Waste Disposal Facility at the PGDP* (BJC/PAD-207/V1 Final) September 2001**
- **Seismic Investigation: *Addendum to the Seismic Assessment Plan for Siting of a Potential On-Site CERCLA Waste Disposal Facility at the PGDP* (BJC/PAD-207/A1 Final) July 2003**
- **Initial Assessment: Risk and Performance Evaluation of the C-746-U Landfill at the PGDP (DOE/OR/07-2041&D2/R1) November 2003**



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