



Burial Grounds Operable Unit

Presented by Dr. John P. Russell

Waste Operations Task Force

February 17, 2005



Scoping Document

What is a scoping document?

The purpose of the scoping document is to ensure that the Commonwealth of Kentucky, the Environmental Protection Agency, and other stakeholders have the opportunity to provide input into designing the workplan and accelerating the review, comment and approval process. The scoping document is submitted to the regulators at least 15 days prior to the scoping meeting.



Burial Grounds Operable Unit

- SWMU 2 - C-749 Uranium Burial Grounds
- SWMU 3 - C-404 Low-level Radioactive Waste Burial Ground
- SWMU 4 - C-747 Contaminated Classified Burial Ground
- SWMU 5 - C-746-F Classified Burial Ground
- SWMU 6 - C-747-B Burial Ground
- SWMU 7 - C-747-A Burial Ground
- SWMU 30 - C747-A Burn Area
- SWMU 145 - P-Area Residential/Inert Landfill Borrow Area



Current Planned End State vs. End State Vision

Burial Ground Operable Unit	Current Planned End State	End State Vision
SWMU 2	Access and excavation restrictions PGDP Water Policy Source removal at burial grounds with monitored natural attenuation	Same Enhanced Institutional controls Cap burial grounds with natural attenuation
SWMU 3	Access and excavation restrictions Excavate burial grounds	Same Cap Burial Grounds
SWMU 4	Access and excavation restrictions PGDP Water Policy Source removal at burial grounds with monitored natural attenuation	Same Enhanced Institutional controls Cap burial grounds with natural attenuation
SWMU 5	Maintain current land cover Access and excavation restrictions PGDP Water Policy (enhanced institutional controls Landfill Cap Monitoring	Same (Current Planned End State and End State Vision do not differ)

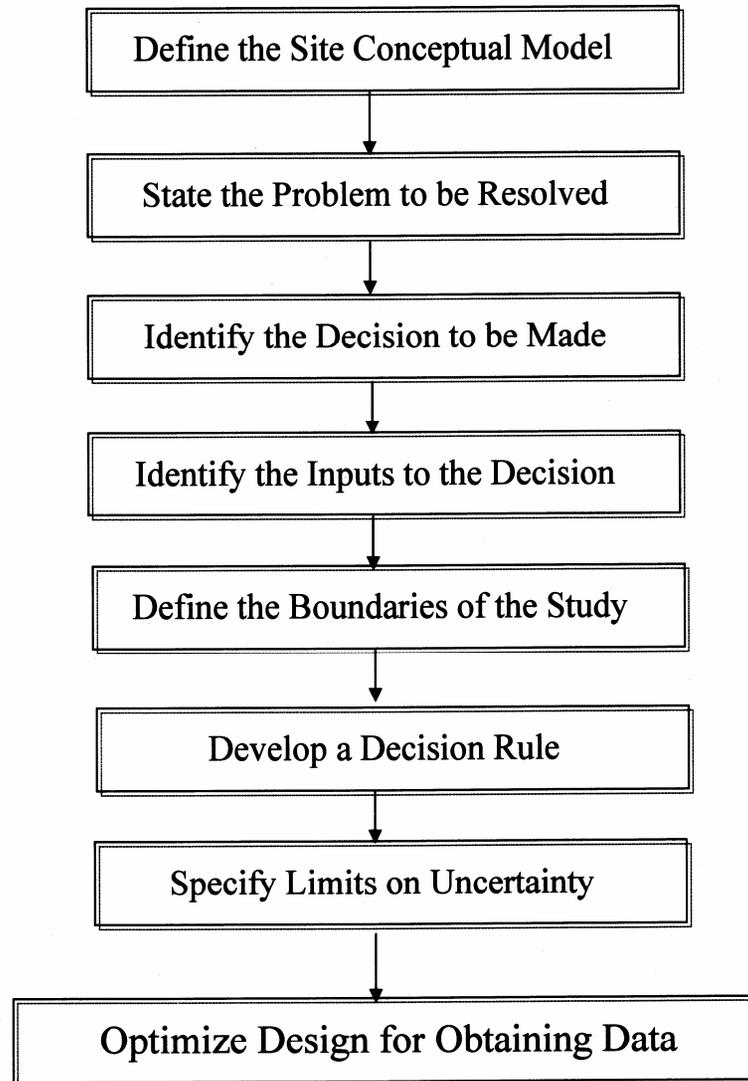


Current Planned End State vs. End State Vision

Burial Ground Operable Unit	Current Planned End State	End State Vision
SWMU 6	Access and excavation restrictions Excavate burial grounds	Same Cap Burial Grounds
SWMU 7	Maintain current land cover Access and excavation restrictions PGDP Water Policy (enhanced institutional controls Landfill Cap Monitoring	Same (Current Planned End State and End State Vision do not differ)
SWMU 30	Maintain current land cover Access and excavation restrictions PGDP Water Policy (enhanced institutional controls Landfill Cap Monitoring	Same (Current Planned End State and End State Vision do not differ)
SWMU 145	Access and excavation restrictions Excavate burial grounds	Same Cap Burial Grounds



Data Quality Objectives Process





SWMU 2: C-749 Uranium Burial Ground

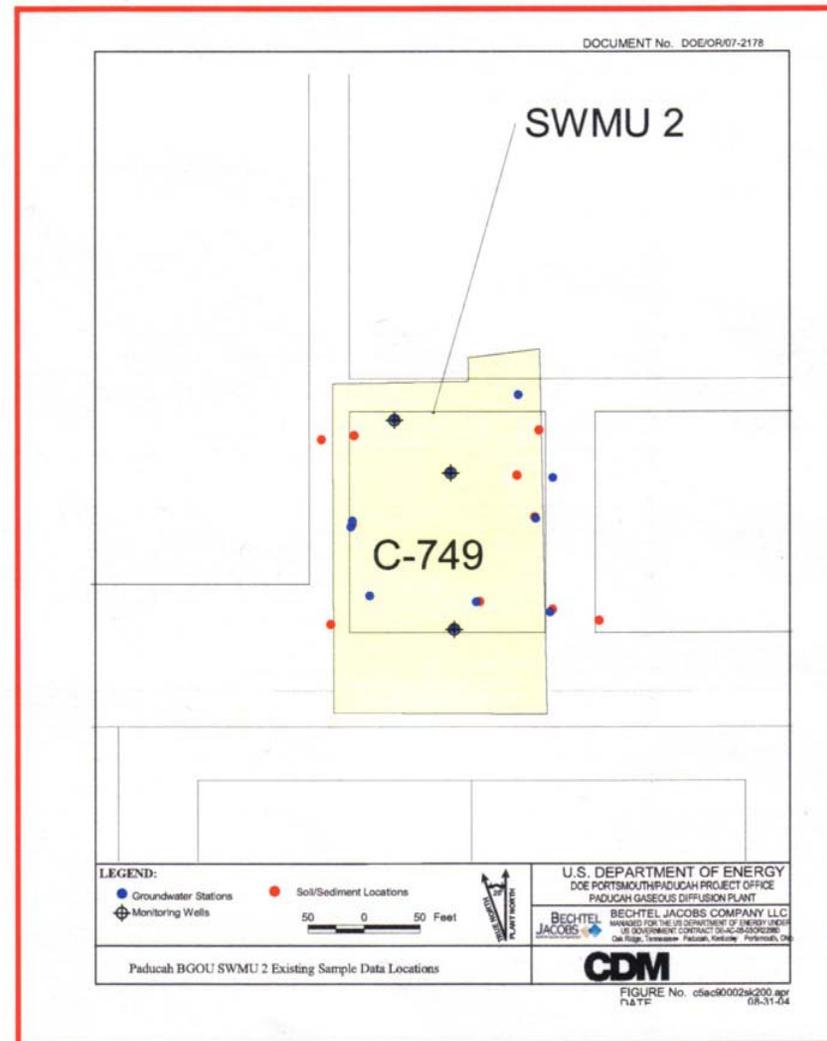
- New understanding of flow directions indicates that the current downgradient monitoring wells (MWs) are not optimally located.
- Based on the new data, installation of one additional MW northwest of SMWU 2 is recommended. The new MW would allow for more accurate assessment of the effect of contaminant releases from SWMU 2 should they occur.
- Previous investigation data are sufficient to meet other data quality objective requirements.



SWMU 2 Existing Sample Locations

Installation of one monitoring well northwest of SWMU 2 is recommended.

Existing Sample Locations





SWMU 3: C-404 Landfill

- SWMU 3 is managed under the post-closure requirements of the Paducah Site Resource Conservation and Recovery Act permit.
- The post-closure monitoring system will be evaluated for effectiveness. If necessary, modifications will be made to continue monitoring SWMU 3 for releases.
- In addition, integrity of the leachate collection system will be evaluated. Sampling locations also will be proposed for the additional area added to the SWMU in March 2003 to evaluate contaminants that may have migrated into the ditch area.



SWMU 4: C-747 Contaminated Burial Yard and C-748-B Burial Area

- During the WAG 3 investigation, the principle study questions were answered with the data collected; therefore, no additional data are necessary to complete additional feasibility study determinations.
- In 2004, an investigation was initiated in accordance with the Site Investigation Work Plan for the Southwest Plume. The results obtained during this investigation will be used to optimize remedy selection.



SWMU 5: C-746-F Classified Burial Yard

During the WAG 3 investigation, the principle study questions were answered with the data collected; therefore, no additional data are necessary to complete additional feasibility study determinations.





SWMU 6: C-747-B Burial Ground

During the WAG 3 investigation, the principle study questions were answered with the data collected; therefore, no additional data are necessary to complete additional feasibility study determinations.





SWMU 7: C-747-A Burial Ground and SWMU 30: C-747-A Burn Area

- Additional geophysical survey data are needed in the area where Drum Mountain was located. In addition, borings within this area may be needed to characterize the soil at varying depths. A radiological walk-over survey also may be needed to confirm that all hot spot areas have been identified.
- Anecdotal accounts of burial pits in the areas adjacent to SWMUs 7 and 30 warrant a record search, interviews, and possibly additional geophysical surveying outside the boundaries of SWMUs 7 and 30. The extent of the geophysical survey will depend on the information gathered in the record search and interviews. Sample collection will be guided by the results of the record search, interviews and geophysical survey.



SWMU 145: Area P Construction/Demolition Debris Disposal and Spoils Area

- In 2001, a scoping package was prepared that included SWMU 145 as it relates to the entire C-746-S&T Landfill area (BJC 2001). The 2001 package summarized data available near this SWMU in both soil and groundwater media. The scoping package was used to develop the *Site Investigation Work Plan for the C-746-S&T Landfill at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky* (DOE 2003b).
- Additional data are needed to complete additional FS determinations.
- The C-746-S&T Landfill Site Investigation was initiated in 2004 in accordance with the above referenced work plan. Data from this investigation will be available prior to, and considered during, the BGOU RI/FS Work Plan development.



Schedule

Regulatory Milestone:

D1 Remedial Investigation/Feasibility Study Work Plan

June 30, 2005

Pending Negotiation:

D1 Record of Decision

Second Quarter 2009

D1 Remedial Action Completion Report

September 30, 2019