



## Department of Energy

Oak Ridge Operations  
Paducah Site Office  
P.O. Box 1410  
Paducah, KY 42001  
October 15, 1998

Paducah Site Specific Advisory Board  
Information Age Park Resource Center  
2000 McCracken Boulevard  
Paducah, Kentucky 42001

Dear Site Specific Advisory Board Members:

### **PADUCAH GASEOUS DIFFUSION PLANT SITE SPECIFIC ADVISORY BOARD RECOMMENDATION 98-3, DATED SEPTEMBER 18, 1998, REGARDING WASTE AREA GROUPING 22, SOLID WASTE MANAGEMENT UNITS 7 AND 30 FEASIBILITY STUDY**

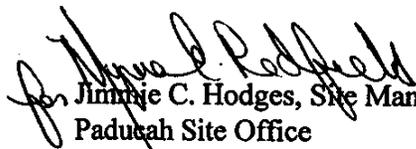
At the September 18, 1998, meeting of the Paducah Site Specific Advisory Board (SSAB), the Board conveyed to the Department of Energy (DOE) **Recommendation 98-3: "The U.S. Department of Energy should look at excavation as a fifth alternative and provide the SSAB with costs and any other findings."** This was in regard to the *Feasibility Study for Solid Waste Management Units 7 and 30 of Waste Area Group 22 at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, DOE/OR/06-1644&D1.*

The enclosed Fact Sheet addresses the SSAB's questions and comments regarding the alternatives contained in the Feasibility Study (FS) and explains why alternatives requiring intrusive actions, such as excavation of the waste pits, were not developed. DOE believes this evaluation is still consistent with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and is technically sound.

However, a site-wide cleanup strategy is being implemented which will allow DOE to revisit all burial grounds under a new Comprehensive Site-wide Operable Unit and reassess their status in relation to maintaining protection of human health and the environment. This will allow for further public participation, comment, and reconsideration of any proposals for remedial action based on that public input. Risk to human health and the environment remains a high priority to DOE and will continue to be monitored at the site.

If you have any questions or require additional information, please call John D. Sheppard at (502) 441-6804 or David W. Dollins at (502) 441-6819.

Sincerely,

  
Jimmie C. Hodges, Site Manager  
Paducah Site Office

Enclosure

## FACT SHEET

### The United States Department of Energy's Rationale for Excluding Remedial Alternatives Requiring Intrusive Activities into the Waste Pits at Solid Waste Management Units 7 and 30 at the Paducah Gaseous Diffusion Plant

#### Introduction

This fact sheet has been developed in response to a question presented by the Site Specific Advisory Board (SSAB) regarding the alternatives within the *Feasibility Study for Solid Waste Management Units 7 and 30 of Waste Area Group 22 at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky*, DOE/OR/06-1644&D1. Specifically, the SSAB requested that a waste-pit excavation alternative be pursued within the solid waste management units (SWMUs) 7 and 30 feasibility study (FS). This fact sheet explains why alternatives requiring intrusive actions to address the waste pits were not developed.

#### Discussion

Under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), criteria for selecting potential remedies are set forth at 40 C.F.R. § 300.430(f). Overall protection of human health and the environment and compliance with legally applicable or relevant and appropriate requirements (ARARs) are *threshold* criteria, meaning that they must be met in order for an alternative to be eligible for selection. Remedial action alternatives that require intrusive activities into the waste pits were not necessary to meet the CERCLA threshold criteria, as is explained below.

**Overall Protection of Human Health and the Environment.** In accordance with CERCLA guidance, overall protection of human health and the environment is evaluated through a site-specific risk assessment. The United States Department of Energy (DOE) evaluated risks to potential on- and off-site receptors based on the potential of the receptor to be exposed to contamination associated with SWMUs 7 and 30. The following information is a brief summary of the receptor evaluation in the FS report.

**Potential on-site receptors.** The Paducah Gaseous Diffusion Plant (PGDP) is an industrial site and will remain industrial in the future, as is specified in the *Federal Facility Agreement for the Paducah Gaseous Diffusion Plant* DOE/OR/07-1707. (The CERCLA § 120 requires the PGDP to have a federal facility agreement.) Therefore, it is assumed that a resident or a recreational user cannot gain access to the site and dig into the buried waste. The only unacceptable risks associated with the buried waste are to excavation workers as a result of direct contact with the buried waste (located 6 feet below ground) for an extended time. The FS ensures protection of the excavation worker through the use of existing institutional controls (e.g., access restrictions, excavation restrictions, etc.).

**Potential off-site receptors.** Contaminant transport modeling indicates that waste within the burial pits and in the soil surrounding the burial pits does not present a current or future unacceptable risk to off-site groundwater users. The modeling indicates that contamination at the units will not migrate to the nearest groundwater point of exposure (POE) for an off-site resident (i.e., the DOE's property boundary) at unacceptable concentrations [i.e., above maximum contaminant levels (MCLs) for drinking water sources]. In addition, based on surface-water samples and ecological studies, the waste pits do not represent a concern to potential surface-water users offsite (e.g., recreational users and ecological receptors).

**ARAR Assessment.** The analysis conducted for the FS reveals that the alternatives evaluated satisfy all ARARs. Contaminant transport modeling indicates that MCLs will not be exceeded at the nearest POE. An analysis of surface-water records for Outfall 001, located immediately downgradient from the waste pits, reveals that Kentucky Pollutant Discharge Elimination System (KPDES) permit levels are not being exceeded. The DOE will continue groundwater and surface-water monitoring to ensure that MCLs and permit levels are not exceeded in the future.

#### Conclusion

Based on the limited risk to off-site receptors, compliance with ARARs, and protection of on-site receptors through the use of institutional controls currently in place, intrusive waste pit remediation alternatives are not necessary to protect human health and the environment.

# Scrap Metal Relative to WAGs 22, 24 and 3

