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**OPERABLE UNIT 5 - AQUIFER RESTORATION PROJECT -  
DECEMBER, 1995 - FACT SHEET**

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FACT SHEET**

# Operable Unit 5

## *Aquifer Restoration Project*

**December 1995**

### **Introduction**

A record of decision (ROD) is issued jointly by the U.S. Environmental Protection Agency (U.S. EPA) and the U.S. Department of Energy (DOE) and formally presents the selected remedy for an operable unit, as well as the basis for that selection.

On Aug. 2, 1995, DOE submitted the draft ROD for remedial actions at Operable Unit 5 to the U.S. EPA. After incorporation of EPA and Ohio EPA comments, the revised ROD was submitted Nov. 13.

*DOE anticipates receiving approval of the Operable Unit 5 ROD on Dec. 13, 1995.*

### **Operable Unit 5 Selected Remedy**

The Operable Unit 5 selected remedy is composed of the following components:

- Excavation of contaminated soil, sediment and perched water zones that exceed proposed final remediation levels;
- Placement of the excavated materials that meet waste acceptance criteria in an on-property disposal facility. (Contaminated material will be treated before placement or shipped off site for disposal.);
- Extraction of Great Miami Aquifer groundwater, to the extent necessary, to provide reasonable certainty that final remediation levels have been attained at all affected areas of the aquifer;

- Treatment of contaminated groundwater, storm water and wastewater to attain performance-based concentration discharge limits, mass-based discharge limits, and final remediation levels in the Great Miami River;
- Application of institutional controls (e.g., access controls, deed restrictions) during and after remedial activities to ensure the continued protection of human health;
- Implementation of long-term monitoring and maintenance programs to ensure continued protectiveness of the remedy, including the integrity of the on-property disposal facility.

### **Background**

Remedial actions that would mitigate the adverse effects of site contaminants present in environmental media (mainly groundwater and soil) were developed for Operable Unit 5. DOE has various systems in place to remediate groundwater that will be integrated, as appropriate, with the Operable Unit 5 selected remedy.

*The objectives of the selected remedy are to reduce or eliminate (through cleanup measures) the potential for human or ecological receptors to come in contact with contaminated media and to prevent contaminants from migrating off site.*

Operable Unit 5 personnel have been operating an extraction system designed to protect public health by limiting access to the use of uranium-contaminated groundwater in an area south of the Fernald site since 1993, when a pumping system was installed to impede further migration of the off-property uranium plume (South Plume removal action).

The extracted water is transported through a force-main pipeline, back to the Fernald site, for monitoring and treatment (if necessary) before discharge to the Great Miami River.

Additional extraction wells are being installed in the South Field to support the remedy. The extraction of contaminated groundwater will continue until final remediation levels (20 parts per billion for uranium) are attained at all points in impacted areas of the Great Miami Aquifer.

Treatment of recovered contaminated groundwater, collected storm water and process wastewater will be handled by an expanded, advanced treatment facility. Sanitary and process wastewater will be generated at the Fernald site by the remediation work force and by the ongoing cleanup activities of all five operable units.

Operable Unit 5 soil and sediment excavation and interim storage will be conducted consistent with the requirements of the *Work Plan for the Improved Storage of Soil and Debris (Removal Action 17)*.

The remedial design/remedial action plans addressing soil management practices will contain the final strategy for excavation and interim storage/staging of contaminated materials originating from Operable Unit 5. As the Fernald site moves into the remedial action phase, the distinctions between the operable units will be blended into project-oriented divisions of labor.

***A Soil Remediation Project group will assume oversight of soil/sediment excavation, placement in the on-property disposal facility or off-site transportation, and site restoration.***

***An Aquifer Restoration Project group will assume oversight of all groundwater, storm water and wastewater pumping and collecting, as well as the advanced wastewater treatment facility.***

The specific sequencing of activities will be developed during the remedial action phases for the various projects.

### **Remedial Design Activities**

Sixty days after the Operable Unit 5 ROD is signed, DOE will submit a remedial design work plan to EPA. This document identifies the overall design and strategy for implementing the remedy and contains schedules for the development and delivery of design documentation.

### ***For More Information***

***Contact the Public Environmental Information Center (PEIC), located at 10845 Hamilton-Cleves Highway, Harrison, Ohio, 45030 (phone: 513-738-0164).***

***For specific questions regarding Operable Unit 5, contact: Rob Janke, DOE Fernald Area Office Operable Unit 5 branch chief, 513-648-3124.***

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