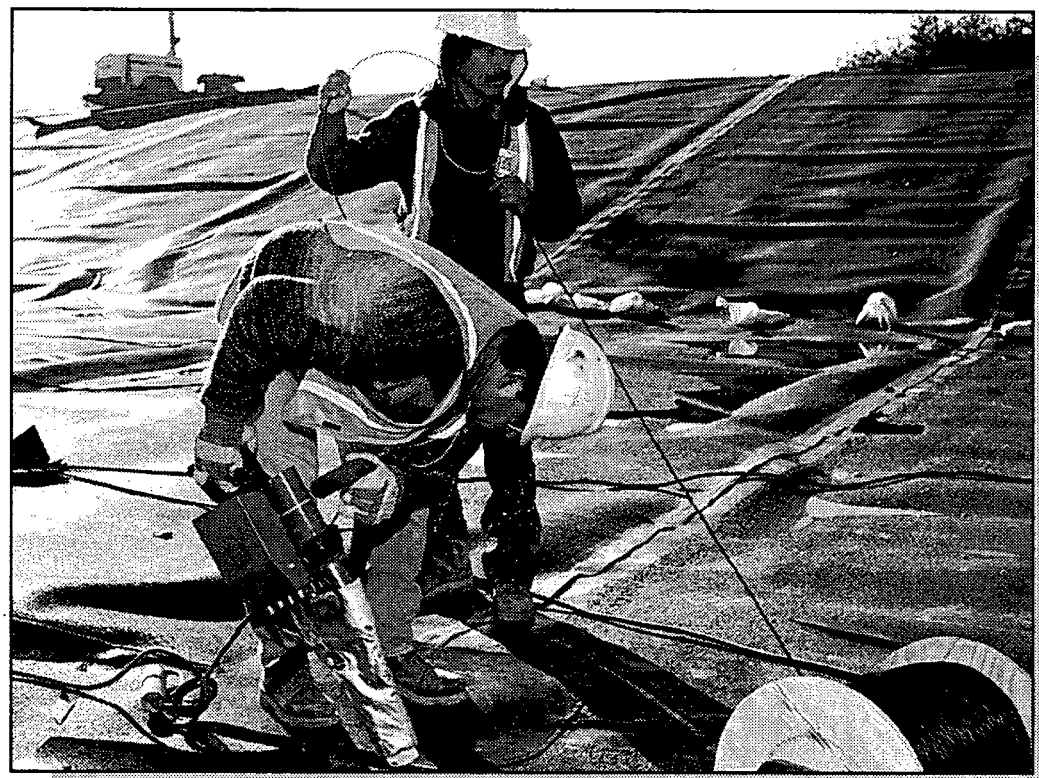
2-708.5 1388

Fact Sheet

Fernald On-Site Disposal Facility Project



Patches are extrusion welded over the intersections of seams in the high–density polyethylene (HDPE) liners. Over 9 miles of seams were welded during the construction of the liner for OSDF Cell 1 (6319-898).

Description

The On-Site Disposal Facility (OSDF) Project includes construction of an eight-cell engineered disposal facility and operation and maintenance of a Leachate Conveyance System and Haul Road. The project is part of Operable Unit (OU) 2, one of five areas at the U.S. Department of Energy's Fernald Environmental Management Project requiring remediation. Located near Fernald's northeastern border, the OSDF will contain 2.5 million cubic yards of soil and debris from remediation of the site.

Cleanup Plan

The OSDF is part of Fernald's balanced approach to waste management, whereby smaller volumes of highly contaminated material will be transported off site for disposal and larger volumes of materials with low levels of contamination will be safely contained on site. About 85 percent of the materials destined for the OSDF will be soil and the remaining 15 percent will be debris from demolition of the buildings.

1

Throughout construction of the OSDF, spotters will watch for any prohibited items in each truckload of material as it is dumped. Prohibited items will be removed and segregated for off-site disposal (6319-1019).

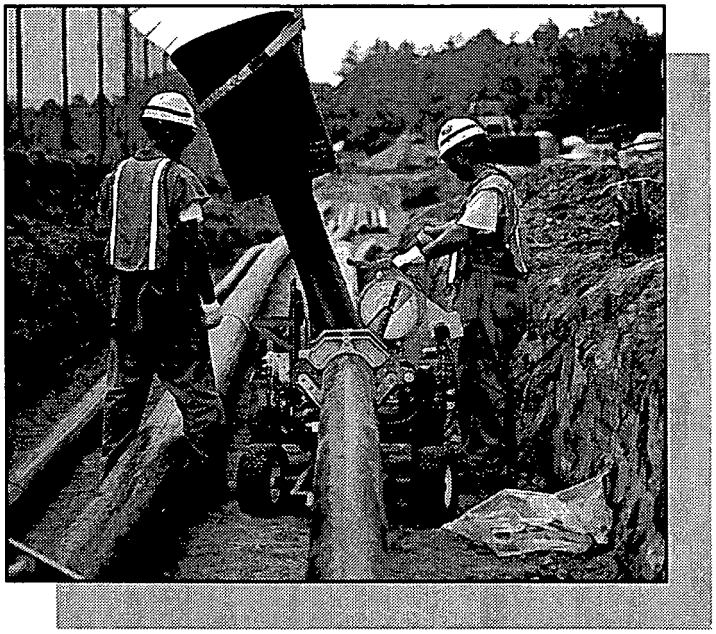
Construction of the OSDF is proceeding in phases from north to south. When complete, the OSDF will be 800 feet wide, 3,700 feet long, and 65 feet high with an 8.75-foot thick cap and 5-foot thick liner. The cap and liners will be multi-layered and constructed of natural materials, such as clay and gravel, and man-made materials such as plastic liners.

Waste acceptance criteria for the facility were established in the Records of Decision for OU2 (South Field Area, flyash piles, solid waste landfill, lime sludge ponds), OU3 (building demolition), and OU5 (soils and aquifer restoration). The criteria—developed to protect the underlying Great Miami Aquifer—include concentration limits on specific radionuclides and chemicals, size criteria, and a list of prohibited items.

Fluor Daniel Fernald, the cleanup contractor, placed the first waste into Cell 1 in December 1997. This waste was soil from remediation of Fernald's East Field, and was used to construct the one-foot protective layer over the liner system. Phased construction of the OSDF is expected to continue through 2006.

To collect and treat wastewater from the OSDF, called "leachate," DOE and Fluor Daniel Fernald constructed the Leachate Conveyance System. The system routes the water through leak-tested, double-contained pipes to the Biodenitrification Surge Lagoon for eventual treatment at the Advanced Wastewater Treatment Facility.

The Haul Road was constructed in December 1997 so trucks can safely carry wastes from the Southern Waste Units to the OSDF without disrupting general site traffic.



Sections of pipe were welded together and then leak tested for the Leachate Conveyance System which carries leachate from the OSDF to the Biodenitrification Surge Lagoon. (6584-88).

For More Information...

More information about this facility and other Fernald cleanup projects is available in the Public Environmental Information Center, 10995 Hamilton-Cleves Highway (Delta Building), or at Fernald's Web site address: www.fernald.gov. Stakeholders can also learn about cleanup plans and progress at Fernald's monthly Cleanup Progress Briefings held on the second Tuesday of each month.

For specific questions about this facility, call Jay Jalovec, DOE-FEMP project manager at (513) 648-3122, or send an e-mail to: jay_jalovec@fernald.gov.

Graphics #4982 4/98