



Paducah Gaseous Diffusion Plant  
Citizens Advisory Board

Recommendation 07-04  
January 18, 2007

## Recommendation: 07-04

*Approved at the Citizens Advisory Board Meeting, January 18, 2007*

**Chair**  
Allen Burnett

**Chair-Elect**  
Janet Miller

**Board Members**

John Anderson  
Judy Clayton  
Shirley Lanier  
Bobby Lee  
Elton Priddy  
John Russell, Ph.D.  
Jim Smart, Ph.D.  
James Tidwell

**Liaisons**  
Reinhard Knerr  
DOE DDFO

Mitch Hicks  
DOE Federal Coordinator

Jon Maybriar  
Division of Waste  
Management

David Williams  
Environmental Protection  
Agency

Mike Hardin  
Fish and Wildlife Resources

Dr. John Volpe  
Radiation Health Branch

**Support Services**  
EHI Consultants, Inc.  
111 Memorial Drive  
Paducah, KY 42001  
Phone 270.554.3004  
Fax 270.554.3248  
[www.pgdpcab.org](http://www.pgdpcab.org)  
[paducahcab@bellsouth.net](mailto:paducahcab@bellsouth.net)

### **Title: Assurance of Compliance with the Waste Acceptance Criteria for the C-746-U Landfill**

#### **Background:**

Construction of the Paducah Gaseous Diffusion Plant (PGDP) began in 1951, and the PGDP began operations in 1952. From that time to the present, PGDP has generated a variety of commercial and industrial wastes. These wastes have been disposed in several landfills, of which the C-746-U Landfill is one. This landfill was constructed in 1995 for the disposal of solid wastes not regulated as hazardous materials under the Resource Conservation and Recovery Act of 1976 (RCRA) or the Toxic Substances Control Act of 1976. The landfill is located north of the PGDP main plant area and is permitted by the Commonwealth of Kentucky in accordance with the requirements of Kentucky solid waste regulations (401 Kentucky Administrative Regulation 48, *Standards for Solid Waste Facilities*) and Subtitle D of RCRA.

PGDP operations and the U.S. Department of Energy (DOE) environmental remediation program are the sole waste sources for the C-746-U Landfill. The C-746-U Landfill is a critical resource for the environmental remediation program at PGDP, and disruption of landfill operations would be harmful to that effort. Waste Acceptance Criteria (WAC) have been developed for the C-746-U Landfill, which provides guidance to waste generators and landfill operators regarding the wastes that can be accepted for disposal. The WAC have been incorporated into operating procedures to assure compliance with the operating permit.

Information has been presented to the Citizens Advisory Board (CAB) and to the Kentucky Division of Waste Management, which suggests that strict adherence to the WAC has not been maintained. In particular, it was alleged that free liquids were placed in the landfill in violation of the operating permit WAC. Subsequent investigation of these allegations by DOE was required by Kentucky. These investigations supported that free liquids had been inadvertently placed in the landfill. More recently, free liquid was introduced into C-746-U Landfill during the disposal of a transformer when a capacitor containing mineral oil was ruptured. Although the waste sampling protocol was apparently followed, the presence of the mineral oil was not discovered until the spill occurred.

Violations of the WAC are not acceptable to DOE, Kentucky, or the CAB. Strict adherence to the WAC is necessary for legal, environmental, and programmatic reasons.

#### **Recommendation**

**The CAB recommends that DOE assure strict compliance with the WAC for C-746-U Landfill. The means to achieve this assurance should consider: (1) the adequacy of WAC flowdown into operating procedures; (2) a thorough review of WAC importance and details with all waste generators, landfill operators, and contractors; (3) an evaluation of sampling protocol adequacy; and (4) establishment of an oversight program to periodically evaluate performance against the WAC.**