

The U.S. Department of Energy

Carlsbad Field Office



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Waste Isolation Pilot Plant Hazardous Waste Facility Permit Current Requirements



031219.3



Current WIPP Waste Analysis Plan Requirements

- **Acceptable knowledge**
 - **Data quality objectives are established in the WIPP Hazardous Waste Facility Permit to ensure compliance with regulatory requirements**
- **Headspace gas sampling and analysis**
- **Homogeneous solids sampling and analysis**
- **Radiography or visual examination**
 - **Visual examination as a quality control check on radiography**

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December¹⁶ 2003

Waste Isolation Pilot Plant Hazardous Waste Facility Permit Proposed Requirements

Public Law 108-137

SEC. 311. (a) The Secretary of Energy is directed to file a permit modification to the Waste Analysis Plan (WAP) and associated provisions contained in the Hazardous Waste Facility Permit for the Waste Isolation Pilot Plant (WIPP). For purposes of determining compliance of the modifications to the WAP with the hazardous waste analysis requirements of the Solid Waste Disposal Act (42 U.S.C. 6901 et seq.), or other applicable laws, waste confirmation for all waste received for storage and disposal shall be limited to (1) confirmation that the waste contains no ignitable, corrosive, or reactive waste through the use of either radiography or visual examination of a statistically representative subpopulation of the waste; and (2) review of the Waste Stream Profile Form to verify that the waste contains no ignitable, corrosive, or reactive waste and that assigned Environmental Protection Agency hazardous waste numbers are allowed for storage and disposal by the WIPP Hazardous Waste Facility Permit.

(b) Compliance with the disposal room performance standards of the WAP shall be demonstrated exclusively by monitoring airborne volatile organic compounds in underground disposal rooms in which waste has been emplaced until panel closure.

Signed by the President on December 1, 2003

Changes Directed by Public Law 108-137

- **Confirmation that waste contains no ignitable, corrosive, or reactive waste through the use of either radiography or visual examination of a statistically representative subpopulation of the waste**
 - **Referred to as waste confirmation**

Changes Directed by Public Law 108-137

- **Review of waste stream profile form to verify that waste contains no ignitable, corrosive, or reactive waste and that assigned Environmental Protection Agency hazardous waste numbers are allowed for storage and disposal by WIPP Hazardous Waste Facility Permit.**
 - **Referred to as waste stream profile form review**

Changes Directed by Public Law 108-137

- **Compliance with disposal room performance standards of the waste analysis plan (WAP) shall be demonstrated exclusively by monitoring airborne volatile organic compounds in underground disposal rooms in which waste has been emplaced until panel closure**
 - **Referred to as repository monitoring**

Waste Confirmation

- **PL 108-137 limits confirmation to using waste examination and not chemical analysis**
- **Permit modification request emphasizes acceptable knowledge to ensure characterization**

Waste Confirmation (cont.)

- **Proposed modification request eliminates three waste confirmation activities:**
 - **Headspace gas sampling and analysis**
 - **Solids sampling and analysis**
 - **Visual examination as a quality control check on radiography**
- **Provides criteria for confirmation of waste**

Proposed Waste Analysis Plan Requirements

The revised waste analysis plan will continue to provide needed information to safely manage TRU mixed waste by meeting established data quality objectives (DQOs) for acceptable knowledge



Emphasis on Acceptable Knowledge

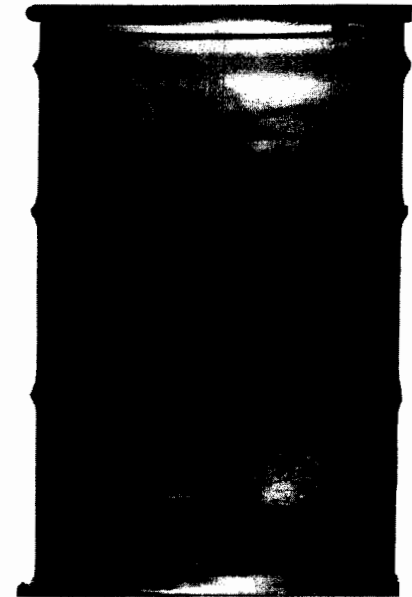
- **Proposed data quality objectives:**
 - **Delineate TRU mixed waste streams**
 - **Assign toxic characteristic hazardous waste numbers**
 - **Assign listed hazardous waste numbers**
 - **Determine if a waste stream is eligible for less than 100 percent acceptable knowledge confirmation by waste examination (visual examination or radiography)**

Waste Confirmation Activities

Consistent with PL 108-137, the waste analysis plan requires confirmation of the waste's physical form through radiography or visual examination and review of waste stream profiles to ensure only approved waste is received.

Criteria for Confirmation

- **The following criterion to qualify for 10 percent confirmation are specified:**
 - **Container-specific information required for all containers in the waste stream**
 - Absence of prohibited items
 - Description of packaging configuration
 - Description of waste

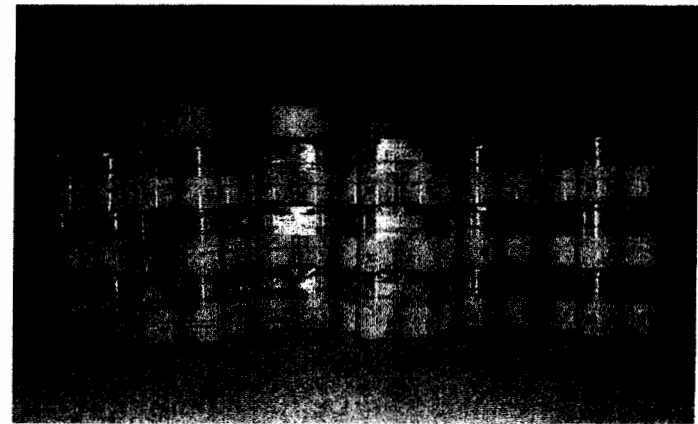


Waste Stream Profile Form Review

- **No changes needed to current waste analysis plan to implement this portion of PL 108-137**

Repository Monitoring

- **Closed-room monitoring to demonstrate compliance with environmental performance standards**
 - **Describes remedial actions if standards are approached**
 - **Uses monitoring methods currently in the permit**



The Proposed Modification

- **Is protective of human health and the environment by enhancing the repository monitoring system**
- **Maintains safety of operations by:**
 - **ensuring prohibited wastes are not shipped**
 - **ensuring only approved waste is received**
- **Meets requirements of PL 108-137**

The revised waste characterization and confirmation system

