



# RECERTIFICATION DECISION

## 2006 EPA WIPP FACT SHEET No. 1

### The WIPP Site

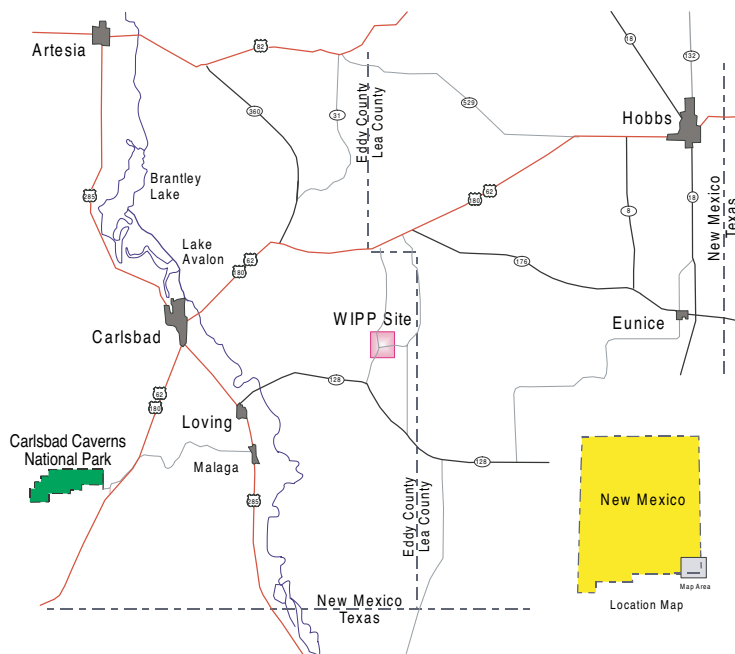
The Waste Isolation Pilot Plant, or WIPP, is the world's only permanent disposal site for transuranic (TRU) radioactive waste created during the research and production of nuclear weapons. The WIPP site is located 26 miles east of Carlsbad, New Mexico, where TRU waste is entombed in a 2,000 foot thick layer of natural salt 2,150 feet below the surface.

The U.S. Department of Energy (DOE) currently estimates that 145,000 cubic meters of TRU wastes from DOE sites across the country will ultimately be disposed of at WIPP. The WIPP capacity is 175,570 cubic meters.

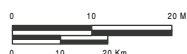
### Recertification Facts

On March 29, 2006, EPA recertified that the DOE's WIPP facility continues to comply with EPA's radioactive waste disposal regulations (40 CFR 191) and WIPP Compliance Criteria (40 CFR 194). As directed by Congress in the WIPP Land Withdrawal Act, EPA will conduct a recertification every five years until the closure of the WIPP facility.

- The recertification process is not a reconsideration of the decision to open WIPP, but a process to confirm that the WIPP continues to meet all requirements of EPA's disposal regulations.
- The recertification process ensures that WIPP's continued compliance is demonstrated using the most accurate, up-to-date information available.



Federal Highway  
 State Highway  
 Other Roads



The WIPP repository will limit radionuclide releases to the accessible environment and therefore protect people and the environment from exposure to these wastes for at least 10,000 years.

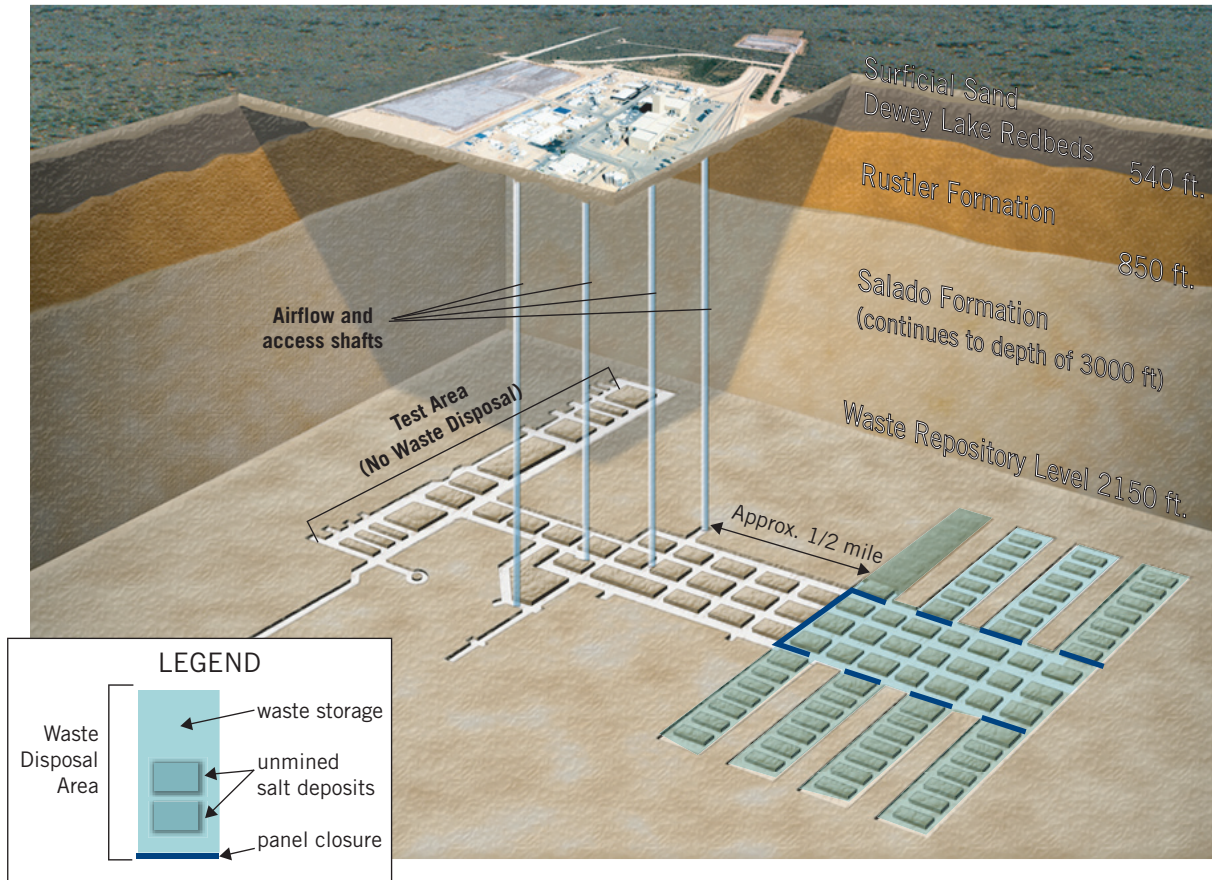
### EPA's Role at WIPP

While the WIPP facility is managed by DOE, EPA has responsibility for ensuring that the facility complies with EPA's radioactive waste disposal regulations.

### EPA's Recertification Process

# Waste Isolation Pilot Plant

- U.S. Department of Energy Facility
- Designed for permanent disposal of transuranic radioactive waste



*This diagram shows underground orientation of the WIPP repository 2,150 feet beneath the surface.*

One way that EPA ensures WIPP facility compliance with its waste disposal regulations is by reviewing the recertification application that Congress requires DOE to submit every five years. After submission of the application, EPA first determines if the application contains all the necessary information, and requests additional information if necessary (called a completeness review). Next EPA performs an in-depth technical review of the application.

EPA received DOE's first recertification application in March 2004. Following several requests for additional information, EPA determined that the recertification application was complete in September 2005. The WIPP Land Withdrawal Act requires EPA to make a recertification decision within 6 months of receiving a complete application. EPA recertified WIPP in March 2006.

DOE's 2004 recertification application and any additional information submitted by DOE can be obtained from the EPA WIPP website or docket. EPA's recertification decision and supporting technical evaluations can also be obtained from EPA's WIPP website and docket.

## Waste Regulations

At the WIPP, the specific release limits are based on the amount of waste in the repository at the time of disposal. While these limits allow for the release of small amounts of radioactive material into the environment, the potential releases do not pose a threat to human health and the environment. Regulations regarding the release of radioactive material, called radionuclides, can be found in Title 40 of the Code of Federal Regulations, Part 191. These regulations dictate that releases of radionuclides to the accessible environment must be unlikely to exceed specific limits for 10,000 years after disposal. A radionuclide is an unstable form of an element, with the capability to emit radiation through spontaneous transformation to a more stable form.

For more general information on radiation please see the EPA's "Understanding Radiation" website at: [www.epa.gov/radiation/understand/index.html](http://www.epa.gov/radiation/understand/index.html)

## Transuranic (TRU) Waste

"Transuranic" literally means "beyond uranium." Transuranic waste is a specific type of radioactive waste that includes elements that are heavier than the element uranium. These elements, including plutonium, americium, curium, and neptunium are created during the production of nuclear weapons. Transuranic waste can include not only the transuranic elements themselves, but also contaminated soils, and items such as gloves, tools, and protective clothing used to handle TRU waste.

While TRU waste is identified primarily by the presence of transuranic elements and how the waste has been managed, it is further defined by concentration. Radioactive material is measured in curies. TRU waste has a concentration of over 100 nanocuries (or one hundred millionth of a curie) per gram. Waste with a concentration of under 100 nanocuries per gram is classified as low-level radioactive waste, even if it contains transuranic elements.

All fact sheets can be found on EPA's WIPP web site at [www.epa.gov/radiation/wipp](http://www.epa.gov/radiation/wipp).

Additional information about WIPP can also be found at DOE's web site at [www.wipp.ws](http://www.wipp.ws).

## How to Find Out More About EPA Activities at WIPP

EPA has prepared a series of fact sheets to provide information on the WIPP. All documents listed here are available on EPA's WIPP website.

### Fact Sheets

**Fact Sheet # 1 – Recertification Decision.** Provides general information on the recertification process.

**Fact Sheet # 2 – Public Information and Input on WIPP.** Provides information on how the public can learn about WIPP, stay up to date on current topics, and provide input to the EPA on WIPP related issues.

**Fact Sheet # 3 - Changes in the Recertification Assessment.** Provides information on the updated Performance Assessment (PA) conducted for the 2004 recertification application. The PA is an assessment of the likelihood that the WIPP will meet release limit requirements. EPA required DOE to conduct a PA as part of the original certification application, and a new PA for the 2004 recertification application. This fact sheet also includes information on human intrusion.

**Fact Sheet # 4 – TRU Waste Inventory.** Summarizes the Waste Inventory quantities, locations, and waste material parameters for TRU waste currently stored at DOE sites across the country.

**Fact Sheet # 5 – Groundwater.** Provides information on how DOE monitors the flow of groundwater on and around the WIPP site to better understand the potential pathways for releases of radioactive material.

**Fact Sheet # 6 – Karst.** Provides information on EPA's response to stakeholder concerns about the presence of karst at the WIPP site. Karst is a geologic feature resulting from the dissolution of rocks, creating sinkholes and large voids.

### Fact Sheets in this Series:

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|------------------------|------------------|
| Recertification        | Fact Sheet No. 1 |
| Public Involvement     | Fact Sheet No. 2 |
| Performance Assessment | Fact Sheet No. 3 |
| TRU Waste Inventory    | Fact Sheet No. 4 |
| Groundwater            | Fact Sheet No. 5 |
| Karst                  | Fact Sheet No. 6 |