



## WIPP TRANSURANIC WASTE INVENTORY

### How has the WIPP TRU Waste Inventory Changed Since the 1998 Certification Decision?

As DOE proceeds with site clean-ups across the country, knowledge about TRU waste improves. At the time of the 1998 Certification Decision, no waste had been emplaced in WIPP, therefore the entire waste inventory was an estimation of the waste DOE might put in WIPP. The recertification waste inventory contains the actual data for the waste that has been disposed of in WIPP as of September, 2002, and an estimate of the waste that will fill the rest of the repository.

### Will All Waste in the TRU Waste Inventory be Shipped to WIPP?

Just because waste is included in the TRU waste inventory, does not mean that DOE will necessarily seek to ship it to WIPP or that EPA will approve it for disposal at WIPP. Before any waste is shipped or disposed of at WIPP, EPA seeks to ensure that the waste meets the waste acceptance criteria for WIPP and that DOE can characterize and track the waste.

### Does the Current WIPP Waste Inventory Contain High-Level Waste (HLW)?

According to the WIPP Land Withdrawal Act, HLW cannot be disposed of at WIPP. EPA will not allow DOE to ship any waste that does not meet the legal and technical requirements for disposal at WIPP. However, the recertification waste inventory does contain a small amount of tank waste from the Hanford site that is currently managed as high-level waste. None of this waste has been approved by EPA for disposal at WIPP.

DOE has provided documentation that indicates that these Hanford tank wastes will be treated and will eventually be able to meet the WIPP waste acceptance criteria. For the purpose of Recertification, EPA is allowing DOE to put this waste in the projected inventory used in the performance

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### What is the Transuranic (TRU) Waste Inventory?

The TRU waste inventory describes the type, volume, and radioactivity of waste already disposed of in the WIPP, as well as waste at various sites across the country that could potentially be sent to WIPP. This information is used in the performance assessment (PA) calculations to demonstrate compliance with EPA's disposal regulations.

Before the disposal of any waste at WIPP, EPA inspects the site that generated the waste to confirm that DOE can measure and track the amount, and radioactive and physical form of the waste. Since 1998, EPA has conducted over 100 inspections at DOE waste generator sites.

EPA also inspects operations at the WIPP site annually. During annual inspections EPA verifies tracking of waste being shipped from other DOE sites, and confirms that WIPP continues to meet the waste limits established by EPA's certification.

assessment. EPA believes that it is prudent to include the characteristics of waste that may potentially be disposed of at WIPP to ensure compliance with the agency's disposal regulations for TRU defense waste. Prior to disposal at WIPP, EPA will ensure that all wastes meet the legal and technical requirements for disposal.

### Can Waste that is not Currently in the Inventory go to WIPP?

As DOE continues to characterize waste throughout its facilities, waste will continue to be identified for disposal at WIPP. TRU waste that is not included in the current waste inventory may still be allowed for disposal at WIPP, but only if all of the following conditions are met:

1. EPA determines that the waste characteristics meet the limits for WIPP disposal,
2. Waste characteristics are reflected in the performance assessment, and
3. The waste meets all the criteria for acceptability at WIPP.

### EPA Requested Additional Information on the Waste Inventory

EPA asked for additional information on the Hanford Tank Waste and K-Basin Sludges that were included in the waste inventory for recertification. EPA specifically asked DOE for further explanation on how this waste does or could meet the criteria for WIPP waste. For more information on this, see Issue Paper #3, *Hanford Tank Wastes and K-Basin Sludges*.

As part of the completeness review of the Recertification Application, EPA also asked DOE to provide additional information on volumes and weights

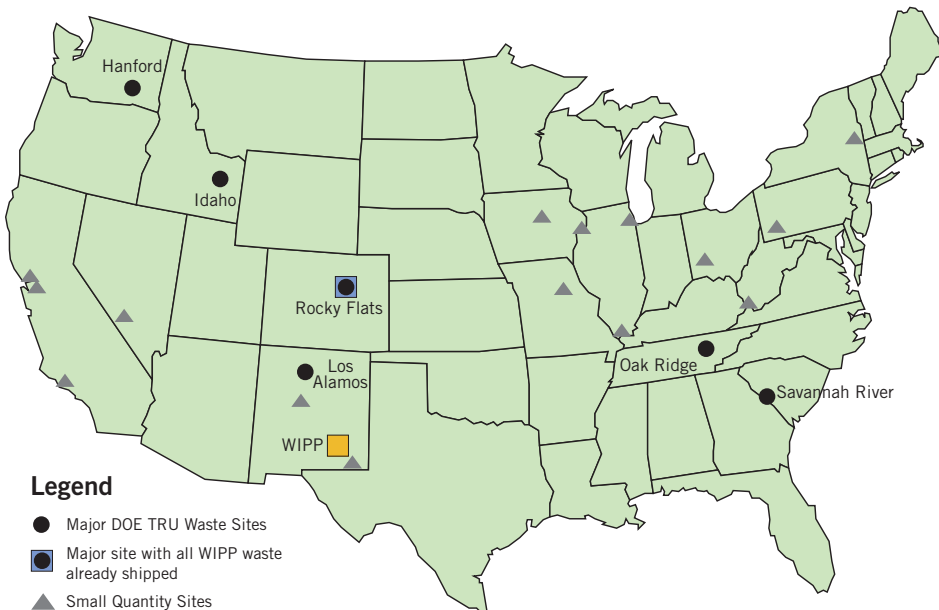
of all materials placed in the repository, including the waste containers and packaging material. EPA has also requested DOE's waste inventory database.

### EPA's Technical Evaluation

During EPA's technical evaluation of the Recertification Application, EPA will focus on the following aspects of the updated TRU waste inventory:

- 1) EPA will examine DOE's process for gathering information about the waste inventory from the generator sites.
- 2) EPA will verify that DOE appropriately followed its process for gathering information about the waste inventory.
- 3) EPA will make sure that the information about the waste inventory is appropriately incorporated into the recertification performance assessment.

### Locations of WIPP Generator Sites



#### Legend

- Major DOE TRU Waste Sites
- Major site with all WIPP waste already shipped
- ▲ Small Quantity Sites

*Approximately 28,000 cubic meters (990,000 cubic feet) of CH waste have been disposed of at the WIPP facility as of June 1, 2005. No RH waste has been disposed of at WIPP to date. Approximately 102,000 cubic meters (3,600,000 cubic feet) of CH waste, and about 7,080 cubic meters (250,000 cubic feet) of RH waste, are currently stored at DOE sites across the country and are awaiting disposal at WIPP.*

### Waste Limits

The WIPP Land Withdrawal Act (LWA) limits the amount of TRU waste that can be disposed of at WIPP to 6.2 million cubic feet (175,570 cubic meters). Of this amount, DOE is limited to disposal of 250,000 cubic feet (7,080 cubic meters) of remote handled waste according to an agreement with the State of New Mexico.

Contact handled (CH) waste is TRU waste with a surface dose not greater than 200 millirem per hour. This waste is typically disposed of in 55-gallon steel drums, 100 gallon drums, ten drum overpacks, standard waste boxes or similar containers.

Remote handled (RH) waste is TRU waste with a surface dose rate of 200 millirem per hour or greater. Because this waste has higher radioactivity it must be disposed of at WIPP using remotely operated equipment. Specialized containers have been developed for this type of waste. This waste will be placed in walls of the repository. The LWA puts several limits on RH TRU waste including the radioactivity concentration that any one RH container may contain, the total curies of waste activity that may be emplaced, and the maximum surface dose rates of RH containers.

EPA has approved DOE's general plans for the disposal of RH waste as WIPP. The next step will be for DOE to request EPA approval of site-specific plans to characterize RH waste. EPA will then conduct a thorough review of waste characterization activities at each site.

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