



WIPP TRANSURANIC WASTE INVENTORY

2006 EPA WIPP FACT SHEET No. 4

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. With a few exceptions, the waste inventory for recertification is very similar to the waste inventory that was used for the first certification and performance assessment. There were no significant changes to DOE's waste characterization program in terms of measurement techniques, or quantification and tracking of waste.

What steps must be taken before waste included in the TRU waste inventory can be disposed of at WIPP?

Only defense related TRU waste that has been characterized using EPA inspected and approved waste characterization processes can be disposed of at WIPP. EPA approval covers two types of inspections at TRU waste generator sites: (1) Quality Assurance audits verify that there are qualified and independent inspectors on-site that check a site's ability to characterize TRU-waste; and (2) waste characterization inspections evaluate sites' characterization capabilities showing that the waste proposed for WIPP disposal meets the limits for radiological, physical, and chemical contents established as part of the WIPP certification decision. Through these inspections, EPA ensures that only waste characterized using acceptable processes are emplaced at WIPP.

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.

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 the Hanford tank wastes will be treated and will eventually be able to meet the WIPP waste acceptance criteria. For the purpose of recertification, EPA allowed DOE to keep this waste in the projected inventory. EPA believes that it was

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. The recertification performance assessment shows that WIPP continues to meet the disposal regulations, even with the Hanford tank wastes included. 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's Evaluation of the Waste Inventory

EPA asked for and received additional information on the Hanford Tank Waste and K-Basin Sludges that were included in the waste inventory for recertification. EPA specifically required DOE to update the waste inventory estimates for use in the revised performance assessment.

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 also requested DOE's waste inventory database.

EPA determined that DOE adequately described all the required aspects of the waste inventory and appropriately incorporated the waste inventory into the recertification performance assessment.

For more information on EPA's evaluation of the waste inventory, go to EPA's WIPP website or docket, to the Certification Application Review Documents, Section 15, 23 and 24.

Waste Limits

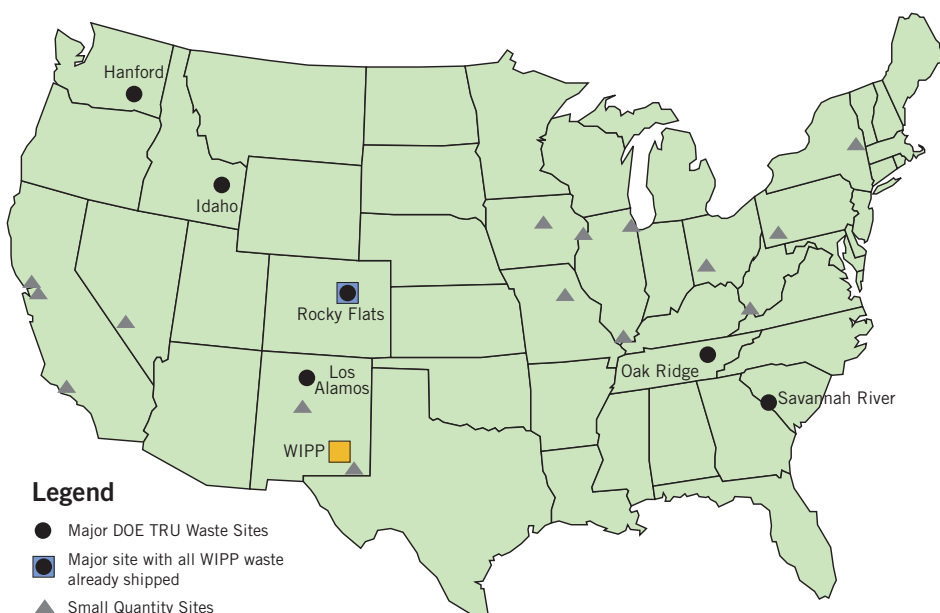
The WIPP Land Withdrawal Act (LWA) limits the amount of TRU waste that can be disposed of at WIPP to 6.2 million cubic feet (175,570 cubic meters). Of this amount, DOE is limited to disposal of 250,000 cubic feet (7,080 cubic meters) of remote-handled waste according to an agreement with the State of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

Locations of WIPP Generator Sites



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