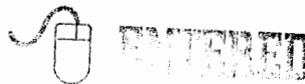




# TRU Progress



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## CAO and steering committee tackling new challenges



Members of the TRU Waste Steering Committee met in Carlsbad in May.

The U.S. Department of Energy (DOE) Carlsbad Area Office (CAO) and the National TRU Waste Steering Committee, which convened in Carlsbad in May, are taking on new challenges.

During the two-day meeting, the committee broke into working groups to provide input on three critical topics: the *National TRU Waste Management Plan*, plans to characterize small quantity sites' waste at the Waste Isolation Pilot Plant (WIPP), and the re-engineering effort (see page 2).

### The Plan

Revision 2 of the *National TRU Waste Management Plan* documents the DOE's commitment to dispose of all transuranic waste, not just waste destined for the WIPP. The CAO originally issued the *Plan* in 1996 and updated it in 1997.

Much of the *Plan* focuses on improvements to optimize the use of the WIPP's resources without compromising safety. One working group suggested that the *Plan's* goals focus on these areas:

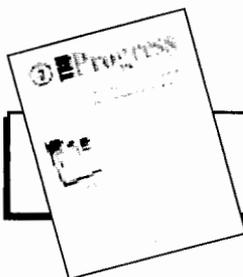
- Knowing what needs to be disposed of and when
- Logistics and schedules for disposing of waste
- Protecting the public, workers, and the environment
- Controlling costs

Publication is expected soon.

### Characterization at WIPP

This working group focused on a strategy to centralize waste characterization for small quantity sites to improve efficiency and accelerate cleanup. About 97 percent of all transuranic waste is at five major sites. The remaining 3 percent is located at 18 other sites across the country. The strategy aims to reduce individual exposures, decrease costs, and increase efficiencies by consolidating characterization at the WIPP.

The proposed solution is to characterize waste to meet U.S. Department of Transportation requirements, then ship it to the WIPP, where it would be characterized to meet regulatory requirements for disposal. See the related article on page 3. □



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## WIPP NOTES

### Re-engineering the pipeline

The CAO launched a "re-engineering" effort in October 1999 to enlist transuranic waste sites' help in maximizing shipments and to ensure that sites could comply with the WIPP's Hazardous Waste Facility Permit.

Teams developed recommendations for complying with the permit and improving the waste management system. Six key themes emerged from the 59 recommendations:

- Concern about **excessive requirements** that increase risks and costs
- A need to address existing **orphan waste** (waste without a clear disposal path) and avoid creation of new orphan waste
- A need to **standardize** procedures, equipment, and software at TRU waste sites
- Management of **remote-handled waste**
- Improved **communications** between the CAO and sites
- A need for greater **flexibility** so sites can use new technologies

So far, the CAO has implemented six recommendations and partially implemented 27 recommendations; 26 are in progress. For a copy of the final report, contact the WIPP Information Center at 1-800-336-WIPP. □

## National Transuranic Program

# Hanford Site ships first drums of waste to WIPP

The Hanford Site in southeastern Washington achieved a major milestone with its first shipment of transuranic waste to the WIPP. The historic shipment departed from Hanford on July 12 and safely reached the WIPP on July 14. Not only was this Hanford's first shipment to the WIPP, but it was also the first time the site has shipped *any* radioactive waste elsewhere for disposal.

The U.S. established Hanford during World War II to produce plutonium for nuclear weapons. The DOE halted production of all weapons material in the late 1980s, and the site is now involved in one of the world's largest environmental cleanup projects. By the time the WIPP closes in 2035, Hanford will have made more than 2,600 shipments.

Hanford is the fourth DOE facility to ship transuranic waste to the

WIPP. The Los Alamos National Laboratory, the Idaho National Engineering and Environmental Laboratory, and the Rocky Flats Environmental Technology Site have all shipped wastes to the WIPP. Since the WIPP opened in March 1999, 70 shipments have arrived safely.

### Hanford Quick Facts:

- Miles from Hanford to the WIPP: *1,808*
- States traveled through: *Washington, Oregon, Idaho, Utah, Wyoming, Colorado, New Mexico*
- Shipments expected by 2035: *2,618*
- Waste volume expected to be disposed by 2035: *14,949 cubic meters*

Like the sites that shipped before it, Hanford met stringent requirements prior to shipping. On May 31, the DOE's CAO certified that Hanford meets all requirements to characterize, certify, and ship transuranic radioactive waste to the WIPP.

Hanford obtained approval of its transuranic waste program from the U.S. Environmental Protection Agency on June 6 and won its final endorsement on June 23 when the New Mexico Environment Department approved the CAO's audit report on the Hanford Site. □

### Late-Breaking News

#### INEEL resumes shipments to the WIPP

The Idaho National Engineering and Environmental Laboratory resumed shipping to the WIPP on July 26. The laboratory has sent five shipments of transuranic waste to the WIPP.

# Proposed permit changes may lead to characterization at WIPP

**C**hallenge: How do you clean up sites with small quantities of transuranic waste when they don't have the high-tech facilities needed to characterize (identify and describe) the waste to be disposed of at the WIPP? The DOE is pursuing ways to clean up these sites—safely and cost-effectively.

On July 24, the DOE proposed a permit modification that lays the groundwork for conducting some waste characterization at the WIPP. This initiative involves using mobile equipment to characterize waste for safe transportation to the WIPP. The CAO would then conduct the second more detailed characterization—to certify it for disposal—at the WIPP. This would allow many of the small sites to remove all transuranic waste from their sites more quickly without requiring substantial funding resources to build facilities or prepare for certification audits.

The proposed modification would:

- Increase the temporary, above-ground storage capacity and volume at the WIPP
- Eliminate the time limitation on storing waste at the WIPP
- Substitute—for this waste—New Mexico Environment Department (NMED)-regulated, in-house assessments at the WIPP for the current surveillance and audit

requirements at other sites. The DOE will continue to implement the permit audit and surveillance program at the transuranic waste sites.

## Waste storage at WIPP

The waste management industry differentiates “storage” from “disposal.” Waste is stored at sites around the country, but when it goes underground at the WIPP it is said to be disposed. The primary difference is duration. Storage is temporary, while disposal is permanent.

At the WIPP, waste may now be stored for up to only 60 days above ground until it is disposed of underground. Removing the time limit and expanding the area and limit on volume would allow the WIPP to receive fully characterized waste at the same time it carries out the on-site characterization. Approval of this modification request by the NMED would increase the WIPP's storage capacity by up to 25 percent and remove the 60-day storage limitation.

## In-house assessments

Carlsbad Area Office audit teams conduct surveillances and audits at the transuranic waste sites to ensure they will characterize waste in accordance with the WIPP Waste Acceptance Criteria (WAC) and the permit's Waste Analysis Plan (WAP).

If the NMED approves the permit modification, compliance with the WAC and the WAP will be accomplished instead by in-house assessments. The NMED would regulate the WIPP characterization program directly. □

## Public involvement

Fact sheets about the proposed modification are available from the WIPP Information Center or on the WIPP Home Page. Copies will also be available at public meetings on the proposed permit modification. Those meetings are scheduled from 6 p.m. to 8 p.m. on August 29 in Carlsbad at the Skeen-Whitlock Building (4021 National Parks Highway) and from 2 p.m. to 5 p.m. and 6:30 p.m. to 9 p.m. on August 31 in Santa Fe at the Courtyard by Marriot (3347 Cerrillos Road).

Stakeholders are invited to comment on the proposed changes directly to the New Mexico Environment Department at the following address:

Mr. Steve Zappe  
New Mexico Environment  
Department  
2044A Galisteo Street  
Santa Fe, New Mexico 87505

A 60-day comment period ends on September 26, 2000. □



# TRU Progress

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1-800-336-WIPP  
(1-800-336-9477)  
infocntr@wipp.carlsbad.nm.us

**WIPP Home Page**  
www.wipp.carlsbad.nm.us

**TRU** is the acronym for **transuranic**, the U.S. Department of Energy's classification of radioactive waste disposed of at the Waste Isolation Pilot Plant.

## Science and Technology

# WIPP being evaluated as underground lab

Few people outside of the scientific world are acquainted with neutrinos, quarks, and leptons. But these particles, which are smaller than atoms, were the common language at a recent astrophysics workshop in Carlsbad. Astrophysicists believe knowledge of these particles will unlock the mysteries of supernovae (giant exploding stars) and perhaps even the origins of the universe.

Worldwide, few laboratories are suitable for performing research on these particles. The WIPP is the United States' most promising location for a high-energy astrophysics laboratory.

Unused research areas, far from the WIPP's waste disposal rooms, offer promise for studying particle astrophysics and understanding more about our universe. The environment is ideal, since the experiments would be shielded deep in the earth from cosmic radiation, and the rock salt in the repository has very low background radiation.

Scientists from around the world met in June to evaluate the WIPP as the next generation underground physics laboratory. Copies of presentations given at the workshop may be viewed on the workshop's

home page at [www.wipp.carlsbad.nm.us/leptontown](http://www.wipp.carlsbad.nm.us/leptontown).

Meanwhile, the Carlsbad Area Office is evaluating whether any studies are required to comply with the National Environmental Policy Act.

Approved projects must not interfere with the WIPP's primary mission of transuranic waste disposal. In addition, any projects and their staffs in the WIPP underground must meet the WIPP's stringent safety requirements. □