

TRU TeamWorks

A weekly e-newsletter for the Waste Isolation Pilot Plant team

November 6, 2003

The Big Story FY03 cleanup and disposal accomplishments



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WIPP Shipments (as of 11/6/03 at 7:15 a.m.)

Shipments
scheduled to
arrive at WIPP
this week
19

Total shipments
received at WIPP
2,149

Fiscal Year 2003 (FY03) was a period of accomplishment and success for WIPP. The project completed and exceeded goals in all major areas of operation. Great strides were made in the areas of waste disposal, cleanup, regulatory initiatives, safety and business. Today *TRU TeamWorks* begins a two-part recap of WIPP's major accomplishments for FY03, with initial focus on cleanup and waste disposal.

Cleanup

FY03 was a year of SQS cleanup accomplishments:

- Removed all TRU waste from the Energy Technology Engineering Center.
- Removed all legacy TRU waste from the Miamisburg Environmental Management Project.
- Removed all legacy debris TRU waste from Argonne National Laboratory-East.
- Completed the Mound two for one cleanup agreement.

"A cornerstone of EM's accelerated cleanup effort is the efficient disposition of TRU waste from SQSs," notes Roger Nelson, CBFO Chief Scientist. "The National TRU Program's progress in SQS cleanup was a major milestone for the entire DOE complex."

A second successful milestone was the October 23 final shipment of 3,100 m³ of TRU waste from INEEL to WIPP nearly two months ahead of schedule. The early completion of this goal signified full compliance with a 1995 settlement agreement signed by DOE, the state of Idaho and the U.S. Navy for the waste's removal.

Finally, ANL-E was a major clean-up achievement for WIPP. CCP employees working at ANL-E overcame numerous technical challenges to complete characterization and shipment of more than 400 drums of debris waste to WIPP.

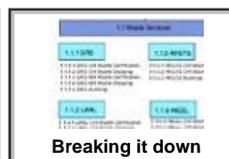
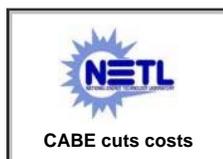
Waste Disposal

In FY03, WIPP accomplished 97 percent of the shipping baseline schedule. WIPP disposed of more waste than was originally projected with fewer shipments, despite shipment delays due to winter weather conditions and the onset of the Iraq War.

At the Savannah River Site, more than 6,000 drums of TRU waste were certified for shipment. In less than a year, the SRS project team increased the flow of waste shipments from two per week to six, while it reduced the cost of waste characterization to about \$2,000 per container through process efficiencies.

The number of Type B packages in WIPP's shipping fleet increased 42 percent in FY03, greatly expanding WIPP's shipping capability. DOE accepted delivery on eight TRUPACT-IIs, nine RH-72B casks and 11 HalfFACTS.

In the news



CABE analyzes characterization costs



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The Center for Acquisition and Business Excellence (CABE), a program of the National Energy Technology Laboratory, recently analyzed costs for contact-handled TRU waste characterization at Rocky Flats Environmental Technology Site (RFETS), Savannah River Site (SRS), and the Idaho National Engineering Environmental Laboratory (INEEL). The report provides an independent analysis of waste characterization costs to DOE and the National Academy of Sciences.



“The CABE report identifies areas where characterization costs vary among sites,” notes Sherry Fabian, NTP Project Support manager. “Their analysis helps us to determine where to streamline processes and improve costs.” For example, the report noted that streamlining the movement of drums at generator sites could significantly reduce costs. At some sites, drums are moved an average of 30 times from retrieval to TRUPACT-II loading. Each time a drum is moved, cost is incurred. Cutting down on drum movements would substantially reduce the cost to characterize a typical drum of waste.

Though drum movement processes should be streamlined, the CABE report found that characterization costs vary from site to site due to site-specific factors and priorities. The report noted that while processes may be streamlined and made more efficient, streamlining may not reduce costs proportionately. Instead, CABE concluded that “...the information collected supports efforts to justify streamlining the regulatory framework, for instituting best business practices.”

“The CABE report provides a periodic look at characterization costs,” continues Fabian. “It is important for us to constantly review our processes and associated costs. Our objective is to remain the most cost-effective provider of waste characterization services in the complex.”

On track with TRANSCOM



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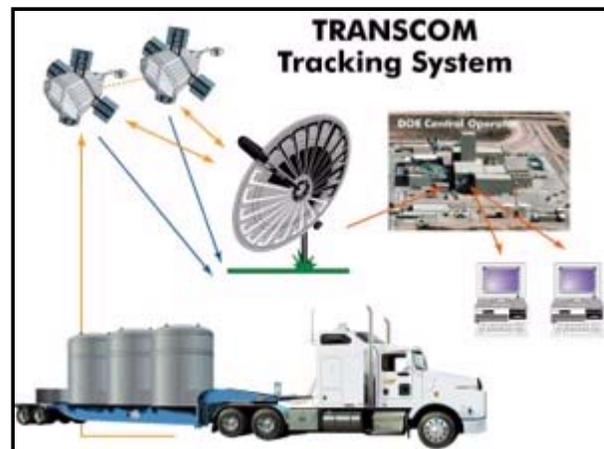
WIPP Shipments

(as of 11/6/03
at 7:15 a.m.)

Shipments scheduled to arrive at WIPP this week 19
Total shipments received at WIPP 2,149
Total Waste Disposed Underground at WIPP
CH drums 46,018
CH standard waste boxes 2,246
CH ten-drum overpacks 501
Cubic meters 16,141

High-end car owners have "On-Star" to stay on course; WIPP drivers have TRANSCOM. The Transportation Tracking and Communication System (TRANSCOM) is designed around a dual satellite tracking system to monitor the location of loaded WIPP shipments 24-hours a day.

TRANSCOM subscribes to a worldwide radio-navigation system, or global positioning system, formed by a constellation of 24 satellites and ground stations. These "manmade stars" serve as reference points to calculate the position of each WIPP shipment. A transponder, mounted on the cab of each WIPP truck, communicates the truck's location to these satellites. The calculated position is then relayed from a ground station on the West Coast to operators at the WIPP site Central Monitoring Room (CMR) where the information is displayed as small squares on their computer screens.



CMR operators are not the only ones who want to know where WIPP trucks are. Other approved users of TRANSCOM include state, city and tribal officials through whose jurisdiction WIPP shipments travel. The current system is based on a password-protected Web site that is automatically updated every five minutes. User access is limited to two hours before and two hours after a truck enters the user's respective state line.

Not only does the system identify the location of a specific truck (within 150 feet), it serves as a communication center. TRANSCOM employs a messaging system complete with an on-board keyboard that allows drivers to maintain constant communication with the CMR. Drivers also communicate with TRANSCOM operators, law enforcement personnel and fellow WIPP drivers by CB radio, cellular and satellite phones.

Drivers notify the CMR of stops along the road or changing road conditions. In turn, the CMR continually briefs drivers concerning weather issues or traffic problems. CMR operator, Paul Blount, reiterates TRANSCOM's importance to shipping safety: "Before a driver ever leaves WIPP or a shipping site, the TRANSCOM system is tested."

Unlike the typical passenger car driver with a cell phone to his ear, WIPP communications enroute are handled by the team driver who is *not* behind the wheel.

Waste handling - WIPP's front line



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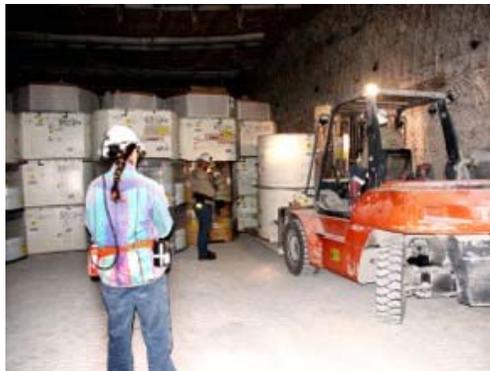
CH ten-drum overpacks
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Watching a waste handling technician at work is like watching Shaquille O'Neal play ball. The precision is exquisite, well rehearsed, making every evolution look easy.

The WIPP waste handling technician is specialized. Like those who are uncomfortable when someone else drives, waste handling techs prefer to trust themselves and co-workers. Each has an acute sense of safety and surety that comes with front-line radioactive waste management.

Waste handling techs spend more than two months in the classroom and even longer as supervised on-the-job trainees before they become bona fide TRU waste handlers. Classroom instruction is comprehensive. Aspiring waste handlers will cover more than 38 subjects that range in scope from nuclear criticality to underground miner safety, bar code reading to forklift safety.



Waste handlers emplace TRU waste in the WIPP underground.

They will learn procedures for log entry, preoperational checks, and must be RCRA-certified hazardous waste responders. Following each course, handlers take a pass or fail examination – that must be successfully passed. Certification is repeated every two years.

A waste handling apprentice will demonstrate proficiency on more than 15 pieces of equipment. They will operate a six-ton bridge crane with precision, and stack seven-packs of shrink-wrapped 55-gallon radioactive waste drums three layers high without a wobble according to Waste Handling Engineer Terry Batchelder. They can change an O-ring, back up to a trailer hitch (on the first try) and charge the batteries of a 13-ton forklift.

If that isn't enough, they must be well-versed on basic facility operations such as electrical, ventilation, heating, fire, water and air flow systems. Four waste handling engineers and more than 30 technicians are needed to seamlessly offload and dispose of the average 20 waste shipments that arrive per week. Although they work one shift, there are two waste handling crews who work seven days a week.

When asked what makes a waste handler, Batchelder says, "We take our responsibilities very seriously. We look after ourselves and our equipment to make sure everything's safe and ready to go."

WIPP's tour and foreign visitor policy



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"Sharing what we do here at WIPP with the national and international community is of utmost importance. The manner in which we do this, while maintaining safeguard and security requirements, is also of great importance. If you're planning on having someone come to the site or the Skeen-Whitlock Building who is a non-U.S citizen, the information (at right) will be very helpful to ensure we maintain proper security practices."

Terry Cuba,
Manager, Santa Fe Protective Services
WIPP Site Security

Waste management activities and deep geologic disposal at WIPP have national implications that generate a lot of interest from key officials. Nations around the globe are also eager to learn about WIPP to support development of disposal facilities in their countries.

In concert with the present homeland security posture and DOE Headquarters directives, the WIPP Security team is focusing attention on the Unclassified Foreign Visits and Assignments Program. Following is some guidance and direction for WIPP employees who sponsor foreign visitors to our site.



A Japanese visitor examines WIPP rock salt.

Unclassified Foreign Visits and Assignments Program

DOE N 142.1 outlines specific requirements and activities to ensure that all foreign visitors are in compliance with laws and national policy. The laws and policies apply to visitors, as well as hosts.

This checklist will help you in getting your foreign visitor on site. Always ask if your visitor is a United States citizen. If he/she is not, you must:

1. Determine if the visitor will be in the United States for more than 30 days. If not, it is a visit rather than an assignment. Both situations require paperwork and approval, but there are some differences.
2. Allow at least 45 days for processing and visit approval. While some visits may be processed quicker than others, this time frame will ensure compliance with all requirements.
3. Contact Jessica Vasquez of the WIPP Security team to ensure you have the proper paperwork. She will instruct you on what needs to be completed. It is the host's responsibility to complete the necessary paperwork and provide visitor information when requested. Failure to do so in the time allowed will result in the visit being denied.
4. Hosts are required to take specific training prior to sponsoring non-U.S. citizens to ensure notice requirements are maintained during the visit. The host is also required to report any anomalies or changes in the security plan (i.e., foreign national changes, work location or job assignment) to Security.
5. If the foreign national is an assignee (works at the project more than 30 days and visits the site on a daily basis), they must complete GET training to be badged for unescorted access. If not, they must be escorted by a badged employee. If they only visit the site on an infrequent basis, the badge will be retained by Security rather than the individual. This particular badge, the "Site Specific Foreign National Badge" may only be used to access the WIPP site.

Remember, the term visit includes officially-sponsored attendance at DOE events that are off-site from the DOE facility as well. In next week's edition of *TRU TeamWorks*, we will review the responsibilities of DOE and contractor personnel who plan to travel to foreign countries on business.

WBS: It's totally about the work



Work Breakdown Structure. If you've worked at a Department of Energy site, you've heard this terminology. But do you *really* know what WBS means? And how WIPP and the National TRU Program use WBS?

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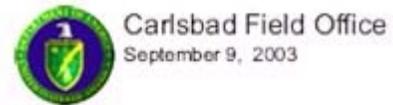
What does WBS do? WBS lays out a *hierarchy* that is "a means of grouping and categorizing work," explains John Bennett, manager of WTS Scheduling and Performance Monitoring. "The best way to predict the future is to capture costs from the past." The Carlsbad Field Office WBS design has evolved from "too organizationally aligned," to a "product-oriented" design. The WBS, owned by CBFO through Level 4, is managed by Bennett's section of the larger WTS Project Analysis and Control group.

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WBS is a terrific tool to project costs and plan budgets. WBS is the foundation for the CBFO 35-year baseline budget for the life of WIPP and its generator sites.

The DOE defines this standard tool as "a deliverable or product-oriented grouping of project work elements shown in graphical display to organize and subdivide the total work scope of a project."



Cutaway illustration shows the numerical hierarchy of CBFO's Work Breakdown Structure.

Where can I find WBS? The FY04 WBS is located on Carli on the WIPP Intranet. All work scope is divided into two Level 1 categories: 1.0 *TRU Waste* and 2.0 *Special Initiatives*. Up to seven levels cascade below five Level 2 categories. Each unique number series corresponds to a work element's place in the hierarchy. Levels 1 through 5 contain approximately 175 total work elements.

For example: If you wanted to identify all tasks and costs to develop/produce the TRUPACT-III shipping container, you would go to the WBS chart or index format on Carli. Locate the Level 2 category 1.3 *Capability Development and Enhancement Projects*, which contains all work elements for TRUPACT-III. The WBS dictionary (a large notebook) defines all work scope for those elements, including 1.3.1.1 TRUPACT-III inner container and 1.3.2.3 TRUPACT-III.

Is WBS used at all DOE sites? Yes, but each WBS is unique, based on work products of an organization. DOE Project Management manual 413.3-1 captures much of the project management process industry uses. WBS was previously associated primarily with construction, now electronics, communications and other industry have adopted WBS, explains Bennett.

Working Smart

To predict work project schedules and costs with accuracy, first capture all tasks associated with completing the job.



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WIPP employee blood drive

Did you know:

- ✓ Someone in the United States needs blood every three seconds?
- ✓ Less than five percent of the eligible population donates, yet 60 percent will need blood at some point in their lives?



Each donation is separated into components that can help more than one patient:

- ✓ Red blood cells are used for surgery patients and accident victims.
- ✓ Platelets are used for cancer and leukemia patients.
- ✓ Plasma is used for burn and trauma patients.

The drive will be held at the WIPP site on Tuesday, November 18, from 7 a.m. to 4 p.m. On Wednesday, November 19, the drive will be in the Skeen-Whitlock Building Auditorium from 8 a.m. to 4 p.m. To sign up, please call Extension 8997.

Sandia launches Chem/Bio Program Web site

Addressing the need to provide information to the public on an important national security capability, Sandia National Laboratories launched an external Web site devoted to its Chemical/Biological Defense (Chem/Bio) Program. The site (www.ca.sandia.gov/chembio) serves as a prelude to a new, revamped page Sandia is developing that will focus on a wider range of homeland security activities.



The new Chem/Bio page offers technical information and background on:

- *Technology projects* at Sandia such as μ ChemLab™ (or MicroChemLab), a hand-held device which detects toxic chemical and biological agents, and SnifferSTAR™, a chemical sensor that mounts on a drone aircraft for remote surveillance of battlefield situations
- *Facility protection*, including Sandia's PROACT (Protective and Responsive Options for Airport Counter-Terrorism) program, which focuses on operational plans and capabilities designed to guard against chemical or biological terrorist threats
- *Urban monitoring tools* to develop and deploy sustainable environmental monitoring capabilities for metropolitan areas, such as Sandia's Weapons of Mass Destruction Decision Analysis Center (WMD-DAC), created to assist government officials and other decision-makers involved in emergency response
- *Systems analysis studies*, which examine modeling of facilities, assessment of technology readiness for insertion into deployed systems, simulations, and alternative architectures for both defensive and responsive systems