Update Total shipments received at WIPP as of 8-25-03: 1,956 | Shipments expected this week: H

TRU TeamWorks

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

August 25, 2003

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WIPP Shipments
(as of 8-25-03)

19	Shipments scheduled to arrive at WIPP this week
1,956	Total shipments received at WIPP

The Big Story

INEEL drum fire and Senate Bill S. 1424: questions and answers

Some recent media coverage has created some confusion in the public about the INEEL drum fire and Senate Bill S. 1424. Here are answers to some of the questions raised:

Q: Was the drum only hours away from shipment to WIPP?

No. In fact, the drum had just been unearthed after years of storage. When they saw the drum, INEEL personnel immediately knew that it was unshippable as packaged, because of its physical condition (it was bulging). Payload containers are simply *not* shipped to WIPP in that condition.

Q: Were the INEEL workers testing the drum for flammable gases when the fire occurred?

No. INEEL workers were venting the drum to relieve the pressure inside the drum (remember, the drum was bulging). They were depressurizing the drum, *not* as a final step in preparing the drum for WIPP, but as a *first* step to allow safe handling. This is standard operating procedure at INEEL.

Q: But, wouldn't Senate Bill S. 1424 eliminate or relax flammability procedures allowing a drum like this one to be shipped to WIPP with concentrations of flammable gases?

No. Senate Bill S. 1424 would *not* eliminate or relax *any* procedures that ensure that a drum is safe to ship to WIPP. Senate Bill S. 1424 would eliminate three unnecessary and costly waste characterization procedures that actually decrease the worker safety margin:

- *Visual examination as a QC check on radiography*. Typically involves opening a drum in a glovebox and sorting through its contents to verify the accuracy of radiography in finding prohibited items. Cost: $22,500 per drum. Accuracy rate of radiography: 99%!

Photo of INEEL drum after incident.

It is important to note that Senate Bill S. 1424 has nothing to do with determining flammable gas concentrations in drums.

Q: But, couldn't an unvented drum with high concentrations of a flammable gas, like hydrogen, slip through the system and be shipped to WIPP?

No. *All* drums are and will continue to be vented before they are shipped to WIPP. That is why the amount of flammable gases in the waste containers in the WIPP underground is so small. How small? Well, the 39,000+ containers in Panel 1 collectively contain only 14 cubic feet of hydrogen. In comparison, the battery of an environmentally friendly electric car can emit up to 50 cubic feet of hydrogen during one hour of charging! But, what about methane? The containers in Panel 1 collectively contain about 3 cubic feet of

- *Headspace gas sampling and analysis.* Determines if certain volatile organic compounds (VOCs) are in the headspace of a drum (Note: the regulatory purpose is *not* to determine the presence of flammable gases, such as hydrogen, although flammable gas concentration measurements can be made during this procedure). Cost: $620 per drum. Total amount of VOCs in the headspace gas in the 39,000+ waste containers in Panel 1: two cubic feet or about the same amount that a 5 oz. bottle of nail polisher remover would produce if allowed to evaporate.
- *Homogeneous solids sampling and analysis*. Determines if certain VOCs are in solid waste, such as solidified sludge. Often requires drilling into the drum with a large drill to obtain a core sample. Cost: $87,000 per drum (not a typo!).

methane. In comparison, a cow "burps" about 10 cubic feet of methane each day!

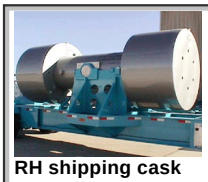
But, venting is not the only safeguard against flammable gases. In addition, workers ensure that flammable concentrations meet stringent transportation limits *before* they are shipped to WIPP. This is done by calculating the concentrations using documented knowledge of the waste stream. If there is a shadow of a doubt about the waste stream, flammability testing is performed.

Q: So, the INEEL drum fire and Senate Bill S. 1424 really don't have anything to do with each other?

Exactly.

In the News


SRS shipment figures climbing


RH shipping cask ready and waiting


Salt Pile rework set to begin


WIPP ERT wants you


Baseline development looks ahead


New hires to retirees - Our Team in flux

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Characterization News

SRS Project Team raises the performance bar

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In less than a year, the project team that performs characterization at SRS has steadily increased the flow of waste shipments per week from SRS to WIPP. The group started at a rate of two per week and now maintains a rate of five per week.

TRU Pad 14 at SRS is a storage facility with a 3,000 drum capacity.

How did the group accomplish such an impressive track record in such a short time? "Teamwork," explains SRS Project Manager Sue Peterman. "Teamwork by many employees in several organizations, who did their jobs well! An accomplishment such as this does not happen through the efforts of one or two individuals."

Peterman is quick to credit several organizations that helped get waste flowing from SRS to WIPP. Though the SRS Project team has members working in Carlsbad and at SRS, timely efforts by the CCP Project Certification, NTP Quality Assurance and L&M Technologies groups enabled the team to steadily upgrade its shipment numbers.

"I must also commend the efforts of our Westinghouse Savannah River Company counterparts and our subcontractors," Peterman continues. "They rose to the challenge as well."

Originally, SRS was scheduled to send approximately one shipment of waste *per month* to WIPP before the central characterization team was put into place at the site. In September 2002, the on-site team was maintaining a two-shipment per week schedule. That number of shipments increased to three per week in October. By January the team was up to four. This month shipments rose to five, and the group expects to hit six per week in September.

A rate of six shipments per week is sufficient to ensure removal of all transuranic waste drums from SRS by the end of fiscal year 2006. "Our latest stretch goal from CBFO is to maintain six shipments per week on a steady basis," Peterman comments. "Maintaining a high level of performance is often just as tough as achieving it. But we're ready!"

Loaded WIPP trailers are backed into TRU Pad 6 at SRS for inspection prior to heading to WIPP.

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Transportation News

RH-72B - ready when the time comes

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WIPP Shipments (as of 8/25/03)

20	Shipments scheduled to arrive at WIPP this week
1,956	Total shipments received at WIPP

The Remote-Handled (RH) 72-B shipping cask is ready for duty. This shipping cask will be used to transport RH-TRU waste from around the DOE complex to WIPP for permanent disposal.

Like the CH-TRU shipping casks, the RH casks are Type B containers approved by the Nuclear Regulatory Commission.

The shipping cask is made of stainless steel with lead shielding and contains polyurethane foam inside each impact limiter. To date, 12 RH-72B shipping casks have been produced at a cost of approximately $650,000 apiece.

WIPP planners estimate that there will be approximately 6,300 RH-TRU waste shipments to WIPP from 14 DOE facilities. The first shipment of RH-TRU waste is tentatively scheduled for 2005.

The RH-72B cask can hold one specially designed canister filled with direct loaded RH-TRU waste or three 55-gallon drums.

So what is WIPP waiting for? State approval of the RH-TRU waste permit modification.

Watch for future RH-TRU waste editions in the Characterization section of *TRU TeamWorks*.

The RH-72B shipping cask (minus impact limiters) is loaded onto a trailer. Impact limiters will be installed on each end of the cask to complete the package.

A complete RH-72B (with impact limiters installed) is ready for use when the time comes.

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Disposal News

Work to begin on new salt pile

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Total Waste Disposed Underground at WIPP
(as of 8/25/03)

43,601	CH drums
1,970	CH standard waste boxes
331	CH ten-drum overpacks
14,350	Cubic meters

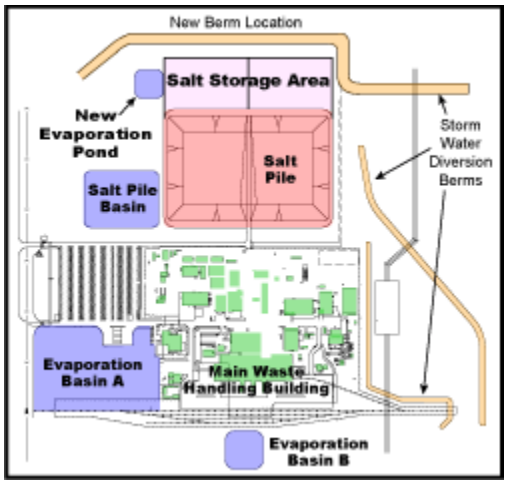
WIPP will move heaven and uh . . . a whole lot of rock salt to proactively comply with state regulations that protect the environment. Last week Constructors Inc. of Carlsbad was awarded a $2.35 million contract to rework the 40-foot-high mound of salt, accumulated over 21 of years of mining activities. And this is why:

Long before waste disposal operations began at WIPP, hydrologists had mapped the aquifers and groundwater flow patterns that underlie the WIPP site. Wells were drilled in the early '80s to monitor groundwater movement and quality.

WIPP hydrologists have since detected a thin lens of shallow subsurface water forming beneath the WIPP site. This artificially created volume of water is well above naturally occurring groundwater and contains higher levels of salt than site perimeter wells.

Although this salty water presents no immediate operational or regulatory compliance problems, WIPP engineers plan to line the salt pile and evaporation ponds to limit further infiltration of storm water run-off or precipitation into the ground.

Beginning next month, Constructors Inc. will remove segments of the existing storm water diversion berm (or dike) that run east to west behind the salt pile and construct a new berm approximately 450 feet north of the existing salt pile.



At the same time, Constructors' crews will begin excavating a large area north of the existing salt pile for a new salt storage area and adjoining evaporation pond. High density 60 mil plastic polyethylene (poly) will be used to line the new storage area and evaporation pond to prevent collected water from leaching into the ground.

Once the new salt storage area is ready, crews will bulldoze and reshape the existing salt pile with freshly mined salt. The 900,000-ton mound will then be crowned with a poly liner and two feet of topsoil seeded with native grasses. Picture a mega-sized Chia pet, quipped one WIPP employee.

To round off the project, Constructors Inc. will reshape and poly-line existing salt pile evaporation ponds, run-off ditches and other evaporative basins. The project is expected to be completed in December 2004.

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Emergency response team helps WIPP... and beyond

Who is the first to respond in the event of a WIPP site emergency? Why, the Emergency Response Team or ERT, of course, as anyone who has taken the General Employee Training refresher test can tell you. WIPP's premiere ERT is always on standby to safeguard people and property at the WIPP site.

ERT Team members Ed McGary (kneeling) and Craig Heine (lying down) perfect their skills during regular training sessions.

The ERT is comprised of both career and part-time responders. Dedicated ERT members are trained to respond to fires, medical emergencies, hazardous material spills, confined space accidents, vehicle roll-overs and high-angle rope rescues.

In addition to primary WIPP site duties, ERT members are often called upon to assist in Carlsbad and surrounding communities. Just last month, ERT members responded to an auto accident on U.S. 62/180 (the Hobbs highway). Team members not only provided emergency medical care to the victims, but transported them by WIPP ambulance to the Lea Regional Medical Center in Hobbs.

Any WIPP employee who is interested in emergency response operations and can meet program requirements may volunteer to join the ERT. Members must meet health and physical requirements, obtain management support to participate in response training and comply with program requirements.

If you are interested in joining the ERT, or would like additional information, contact Radiation Safety and Emergency Management Manager Dave Kump at Extension 8486.

Members of the Emergency Services Technicians (EST); Emergency Response Team (ERT); and First Line Initial Response Team (FLIRT) are listed in the box below.

Anthony Alonzo
Kevin Aragon
David Black
Gene Bolton
Tony Burton
Deena Cantrell
Albert Castillo
Rudy Castillo
John Catano
Gary Chism
Darren Easley
Jason Eaton
Craig Heine
Nadine Kuhn
Mickey Lovell
Edward McGary
Kirk Nance
Bob Paslay
Jim Pearce
Alan Pistole
Gay Pomroy
J. R. Sanchez
Rick Supka

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Working Smart

At WIPP, we're really planning ahead

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Working Smart:

- ***Successful project teams set a clear goal and work purposefully to reach it.***
- ***Project management demands effective prioritization of resources within a hierarchy of requirements.***

Question: What is the critical document that will direct all WIPP work for the next 30 years?

Answer: Baseline development. Baseline development is a DOE project management process incorporating work scope definition, schedule development, and budget estimating into one guiding document. It's the blueprint for completing a massive job for WIPP and NTP. Officially, it's *WIPP Baseline Development FY 2004 – FY 2035*.

Ron Head, WTS manager of Project Analysis and Controls, is leading the team, wrapping up two months' intense work. About 30 members invested 10,000+ hours, including a core group from CBFO, LANL, SNL, CTAC and WTS.

What's the bottom line for WIPP and NTP? "We're already seeing results," said Head. "We've established a team from all the major participants, focused on a common goal – to put waste in the ground."

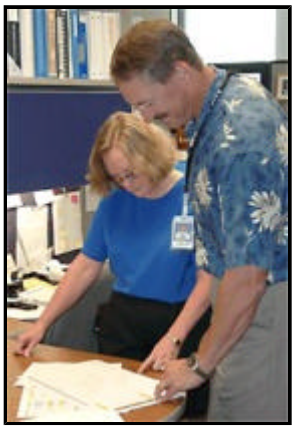
This clear mission has been communicated and embraced. "Everyone has a better understanding of WIPP's scope and purpose, and what drives it."

The team developed a "life cycle estimate" of requirements to clean up legacy transuranic waste, as well as newly generated waste to 2035. The Project Management Manual 413.3 was the model, based on DOE requirements.

The revised WTS contract - incentive-based to expedite DOE site cleanup and save taxpayer dollars - includes NTP assistance for waste characterization hubs including Savannah River Site, Hanford and LANL.

Why develop a baseline? This single guide defines WIPP's work for the expected project life cycle. Future budget negotiations with CBFO will be based on the WIPP baseline development document.

At right: Frieda Huckeba, CBFO, and Ron Head, WTS, review the baseline schedule.



The team captured all key drivers, including site closure requirements; permit re-certification work by the national laboratories; permit modifications for enhanced operations; and other regulatory compliance. There were revelations and hard realities (i.e., waste hoist capacity places disposal limitations on the WIPP site).

The baseline process is like building a house, explained Head. Blueprints must match available funds. Code requirements take priority over amenities. A fully automated home may be the dream, but the reality is a budget limited to basic shelter and safety.

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Carlsbad Field Office

- Office of Program Support -- Two DOE-HQ procurement officials, Sharon White and Irma Brown, are at the Carlsbad Field Office this week doing a review of the procurement process.

L&M Technologies

- L&M Technologies is in the process of updating their internal web page. WIPP team members are invited to check the web site often for updated information. The web site is being updated in sections.

WIPP

Bob Prentiss of WTS Procurement Services assisted Hobbs business owners with paperwork to qualify for federal contracts.