WIPP Status and Plans - 2010

National Transportation Stakeholders Forum
Chicago, Illinois

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Transportation Success

• First shipment to WIPP departed Los Alamos National Laboratory on March 25, 1999
• WIPP honored with U.S. Transport Council award for transportation safety in January 2009
• More than 8,500 shipments have arrived safely
• Surpassed 10 million loaded miles to WIPP
• Many others

“...The [WIPP transportation] system is safer than that employed for any other hazardous material in the U.S....”

National Academy of Sciences, WIPP Panel
Shipments Received

Since Opening:
Total shipments: 8,537
Loaded miles traveled: 10,179,007

Shipments Received by Calendar Year
As of 5-17-10

Shipping Totals by Site

Total shipments through May 17, 2010
15 sites completed
Disposal

Volume of waste disposed at WIPP to date:
67,437 m³

Contact-handled: 67,258 m³
Remote-handled: 179 m³

Waste Disposed by Calendar Year (in cubic meters)
As of May 17, 2010

WIPP Disposal Operations
Air exhaust can be directed through HEPA filter

Each salt pillar left in place is about the same size as a football field
Panel 5 Disposal Status
As of May 1, 2010

Contact-handled waste disposal

Final CH waste emplacement ~Feb. 2011

(500 RH Canisters Permitted in Panel 5)

Projected Final RH Canister in Room 1 - Panel 5 ~Nov. 2010
Panel 6 projected ready ~Aug. 2010

Key Regulatory Activities

- Compliance Recertification Application (CRA)
  - Required every five years until closure (March 26, 1999)
  - CRA documents continued compliance with long-term disposal regulations
  - EPA to announce Completeness Determination June 2010
  - Re-certification approval expected ~Dec. 2010

- Hazardous Waste Facility Permit Renewal Application
  - Ten-year permit issued in October 1999
  - NMED issued draft permit April 27, 2010
    - Public comment period through June, 2010
    - Hearings ~August
  - New Permit approval expected ~Dec. 2010
WIPP drivers meet strict requirements

After hiring, WIPP drivers go through rigorous training before being allowed to transport waste to WIPP.

Sample hiring qualifications and requirements

- Meet or exceed federal requirements
- Minimum 325,000 miles in semi-tractor trailer combination within the last five years or 100,000 miles per year in two of the last five years
- Excellent safety record (even in personal vehicles)
- Must pass background check for security

After hiring, WIPP drivers go through rigorous training before being allowed to transport waste to WIPP.

Commercial Vehicle Safety Alliance Level VI Inspection at Point of Origin (2-3 hours)

Drivers inspect rigs and loads every 3 hours or 150 miles. Some states require added inspections at their ports of entry.
Commercial Vehicle Safety Alliance Level VI Inspection Protocol

- Coupling devices
- Exhaust system
- Brake system
- Fuel system
- Suspension
- Tires/wheels/rims/hubs
- Lighting: headlamps, tail, brake, running, instrument, turn signals
- Trailer interconnection systems
- Windshield and wipers
- Emergency equipment
- Cargo securement
- Electrical system
- Frames/supports
- Steering linkage

Potential New Southern Access Route

Propose new Nominal Southern Route When NM 128 Completed (2011)
Upcoming Developments

- Application submitted Jan. 2010
- NRC approval anticipated Fall 2010
- Permit and EPA approval still to come

Shielded Containers

__(Shipping RH waste in CH shipping containers)__

VS.
Gamma Shielded Containers

- DOT-7A certified
- NRC license for shipping in HalfPACT issued March 2009
- ~1/3 fewer shipments than RH-72B for equivalent volume
- Much more operational flexibility when handled as CH

Shipping Status at Generator Sites

Idaho National Laboratory
- INL continues shipping with two certified programs:
  - AMWTP (CH only) and,
  - CCP (CH+RH supporting both ICP & AMWTP)

Los Alamos National Laboratory
- CCP support continues to characterize and certify CH+RH for as needed to support Area G cleanup
Shipping Status at Generator Sites (continued)

**Savannah River Site**
- Continued deployment of CCP through FY12
- Majority of 5,200 m³ to be re-packaged into 55-gallon drums and SWBs
  - Shipment to WIPP over the next two years
- SRS to repackage large container into SWBs
  - SWB currently approved payload container for shipment in the TRUPACT-II
- Small part of inventory to be packaged into SLB-2 containers due to size reduction issues
  - May eventually be shipped from SRS in the TRPACT-III, once licensed

12,500 m³ emplaced in WIPP

~5,200 m³ remains

Shipping Status at Generator Sites (continued)

**Oak Ridge National Laboratory**
- TRU waste processing facility (TWPF) will continue to package both CH and RH
- CCP will continue to conduct characterization, certification, and mobile loading operations for the foreseeable future

**Hanford**
- CCP deployed to Hanford in 2010
- Initial goal to characterize & certify ~1000 existing over-packed drums (85-gallon)
- Shipment to INL for treatment & CCP certification (at INL) for disposal at WIPP
- FY11 - CCP at Hanford to support direct shipment of both CH and RH
- Dependent on funding
Questions & Answers

WIPP pilots safe and environmentally responsible waste management and energy solutions.