

U.S. Nuclear Waste Technical Review Board

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- Total shipments received since 1999: 12,167 (as of 6/3/18)
- Shipments since restart: 273
- Average of about 8 shipments per week collectively from
 - INL
 - ORNL
 - WCS
 - LANL
- 719 RH shipments



- Coordination with Local, State and Tribal Groups
 - Identification of contacts
 - Public Trust and Confidence - achieved through well developed public information and stakeholder outreach programs, sustained through transparency and honesty
 - Highlighted use of NRC-approved Type B shipping containers and rigorous safety requirements for WIPP carriers
- Development of Protocols and Transportation Management Plan
 - Inspections
 - Breakdowns
 - Communications including scheduling
- Route Training and Opening
 - Training of first responders, including hospitals/medical personnel
 - States certify routes are open
 - Equipment for states and tribes – Hazardous materials response equipment plus radiation instrumentation – Calibration of equipment and check sources

Initial Transportation System Challenges (cont.)

- Qualification and training of Level VI CVSA inspectors and TRANSCOM operators
- Full-scale preparedness exercises
- Incident Commander (not DOE) in charge of response along routes
- Multiple activities must be completed, prior to opening a route



- Turnover/retirement of trained/experienced staff
 - State and tribal WIPP coordinators or regional group representatives
 - CVSA level VI inspection and enforcement personnel
 - Local emergency responders
 - Along the routes, many responders are volunteers
- Continued training
 - Qualification and training of Level VI CVSA inspectors and TRANSCOM operators
 - Emergency response personnel
- Full-scale preparedness exercises
- Local curfews or limited windows for transportation can impact shipment departure/arrival times or cause unnecessary delays
- Packaging load securement – How inspectors check

Current Transportation System Challenges (cont.)

- Lack of knowledge about Type B and Type A packaging
- Advance notifications/coordination of inspections and/or escorts
- Cost associated with maintaining open shipping routes that are not currently in use and may not be used for several years

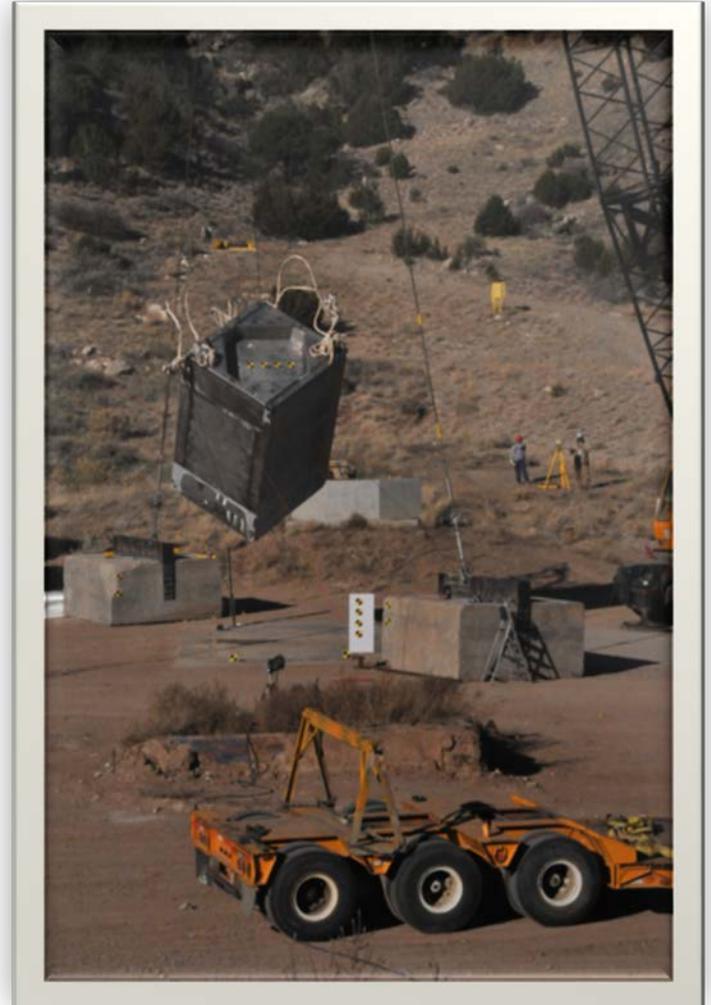


System Equipment Challenges

- Packaging
 - Design
 - Test articles
 - Testing full-scale or per components
 - NRC review and issuance of Certificate of Compliance
 - Trailer Designs
 - Handling and operations



- Fabrication
 - Limited number of qualified suppliers
 - Challenges -- QA, availability of materials, lead times
 - Training/Qualifications
 - QA personnel
 - Test personnel
 - Welder qualifications
 - Data packages
 - Operational Demonstrations
 - Packaging
 - Facility
 - Readiness Activities
 - Approximately 7 years start to finish



- Contract award
- Training and qualification of drivers
- Delivery of equipment
 - Tractors
 - Trailers
- Roadshows
- Readiness



- Interfaces and operating agreements with generators/host site
- Characterization of waste or payload
- Emergency team for package recovery
 - Recovery Guide
- Design, construction, and operation of ancillary equipment and facilities
 - Characterization/processing
 - Loading and unloading
- Safety basis document changes at host facilities

Questions?



- WIPP Program Implementation Guide (PIG) developed in coordination with the Western Governor's Association (WGA) provides standard procedures and protocols for route selection, accident prevention, shipment security, emergency preparedness, medical preparedness and public involvement, including...
 - Ongoing coordination of transportation program activities through state/regional groups and tribal organizations
 - Standard protocols for communications with corridor states/tribes during shipments
 - Funding for equipment and training for state CVSA level VI inspectors and state participation in audits of WIPP carriers
 - Funding for training and equipment for local emergency responders along shipping corridors
 - Access to TRANSCOM for real-time tracking of WIPP shipments
 - Access to trucks and shipping containers for state emergency exercises (WIPPTREX) used to evaluate response capabilities
- The WIPP Transportation Program was called out as a model program by the Blue Ribbon Commission in its final report