WIPP Status Update

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for
Midwestern Radioactive Materials
Transportation Committee

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Agenda

• **Readying WIPP for Operations**
  • Readiness reviews
  • Ground control
  • Waste handling challenges
  • Schedule challenges

• **Preparing Waste for Shipment**
  • New Waste Acceptance Criteria
  • Initial Waste Emplacement
  • Transportation Contractor Status

• **Future Projects**
  • Additional surface storage
  • Permanent ventilation system
Readying WIPP for Operations

• Completing physical changes for WIPP to resume operations
  • Stabilizing portions of the repository (ground control)
  • Increasing ventilation – interim ventilation system in operation

• Ensuring procedures are updated and workers are trained and prepared for waste emplacement work

• Conducting readiness assessments
Operational Readiness Reviews

- Performance-based examination of facilities, equipment, personnel and procedures
- Ensures safe operation of WIPP within approved safety envelope
- Contractor Operational Readiness Review (CORR) conducted October 3-14; final report complete
  - Independent reviewers assessed NWP readiness to commence receipt and emplacement operations
  - Pre-start findings must be resolved before re-start
- DOE Operational Readiness Review (DORR) November 14 – December 2
- As with CORR, DORR may result in pre- and post-start findings
- NMED review/authorization also required prior to waste emplacement
Ground Control

- Consists of installing roof bolts and removing unstable ground through scaling and mining
- Average weekly failure rate of approximately 40 bolts over 7+ miles of underground drifts
- Goal to install at least 110 bolts per week to maintain currently accessible areas and restore access to restricted areas
- Catch-up bolting complete in clean areas
  - Routine bolting maintenance based on geotechnical surveys
- Catch-up bolting continues in restricted areas
  - Progresses at reduced rate due to personnel protective equipment required for crews in these areas
Ground conditions in the south end of the mine have continued to degrade - a recent series of rock falls in prohibited areas influenced the decision to permanently withdraw from the area -

Waste Emplacement will begin
Benefits from closing the south end -

- Reduces potential employee exposure to ground control hazards;
- Reduces potential employee exposure to VOCs;
- Reduces the active area of the underground facility and the resources needed in these areas;
  - Decreases maintenance costs;
  - Allows workforce and resources to focus on ground control in active area;
  - Reduces footprint of the accessible contaminated area (approximately 60% reduction in contaminated area); and,
- Increases available ventilation to Panel 7 and occupied areas of the mine.

Note: The Land Withdrawal Act limits WIPP by waste volume – although additional disposal rooms will be necessary, capacity for waste disposal is not lost.
• Waste emplacement is planned to take place in Panel 7, in a contaminated environment
• Requires transition from clean to contaminated zones near opening of Panel 7
• Waste handling operators working in contaminated zone will utilize personal protective clothing and powered air purifying respirators
• “Cold Operations” completed—used empty waste containers to ensure procedures are effective and workers are trained
Radiological Control Areas

DEFINITIONS

McA = < 20 dpm/100cm² ALpha REMovable
     < 200 dpm/100cm² beta REMovable

CR = > 20 dpm/100cm² ALpha REMovable
     > 200 dpm/100cm² beta REMovable

MBA = > 2,000 dpm/100cm² ALpha REMovable
      > 20,000 dpm/100cm² beta REMovable

ARA = > 0.3 dpm

Panel 7, Room 7 = > 1 million dpm/cm² ALpha on the disposed waste

LEGEND

- Controlled Area
- RBA
- Containment Area
- Containment Area/Minnow Radioactivity Area
- ISRF Containment Area/Minnow Radioactivity Area
- CAN
- ISRF
- INACCESSIBLE

NOTES

1. Scales vary, not to scale, enlarged in PDF original.
2. Existing location reflects status as of 09/16/14.
Preparing Waste for Shipment

- Clean-up activities and waste certification continued during shutdown
- New WIPP Waste Acceptance Criteria (WAC) issued in July
  - TRU waste certification programs currently suspended at generator sites
  - Programs at each site must be updated to meet new requirements
  - CBFO conducting on-site technical reviews to confirm (one review conducted; three additional planned over next four months)
- All previously certified TRU waste will be evaluated to determine if additional documentation, characterization or treatment is required
  - Some waste already assessed; evaluations ongoing
  - Evaluation of previously certified waste in WIPP Waste Handling Building 92% complete
- Significant number of previously certified containers at Idaho and SRS have been evaluated and are ready to ship
When Waste Emplacement Resumes –
- Waste in Waste Handling Building (WHB) at WIPP will be emplaced first – Expected to take 90 days
- Emplacement rate at startup will be the limiting factor – current planning based on *emplace rate of up to five shipments a week*
- Shipping schedule for the first 6 months of operations is currently being developed
Transportation Contract Status

• Proposal evaluations are ongoing with an anticipated award announcement early 2017.
• The transition to the new single contract is anticipated to begin in May 2017 and conclude in July 2017.
• The new contract structure will be the same as the current two contracts which are fixed price contracts requiring dedicated resources.
• No disruption to transportation services are anticipated.
Future projects

• **Surface storage**
  - Engineered concrete overpacks provide storage capacity for 408 containers/136 shipments of CH-waste
  - Increases available weeks for TRU waste shipments
  - Allows continued waste receipt during mining and maintenance outages
  - Permit modification submitted to NMED at end of September

• **Permanent ventilation system**
  - New ventilation shaft and 55,000 square foot ventilation building at surface
  - Geotechnical analysis underway
  - Provides airflow for underground mining and waste emplacement activities to occur concurrently
  - Design and cost estimates expected in 2018
Questions