Agenda

• Introduction and Workshop Objective

• WIPP Recovery Approach

• Interim Performance Measurement Baseline

• WIPP Recovery Project Summary Level Schedule

• Questions and Answers
Introductions and Workshop Objective

• **Introductions**

• The objective of this workshop is to provide a forum for a detailed discussion of the WIPP Recovery Project Interim Baseline and to address stakeholder questions and comments

• The review will include:
  - Development of the Recovery Project Interim Baseline
  - The scope and schedule of the recovery effort
  - The cost to complete the recovery effort
  - The risks and challenges associated with the recovery effort
  - How progress is being monitored and measured
WIPP Recovery

• The Recovery effort has been divided into two phases:

• **Phase I – Mitigation**  
  (stabilize the plant)

• **Phase II – Recovery**
  • Complete the programmatic and operational activities necessary to resume waste emplacement operations by the first quarter of 2016 in alignment with the DOE Recovery Plan
  • Complete and make operational a new ventilation system that will support pre-event waste emplacement rates and mining operations
Phase I – Mitigation

- Performance of Radiological Surveys throughout the WIPP site
- Installation of a Continuous Air Monitor at Station B for real time monitoring
- Sealing of the Bypass Dampers
- Collection and Analysis of Environmental Samples
- Entering the RCRA Contingency Plan
- Emergency Management Event Declaration Conservatism
- Completion of the event bioassay program
- Development of Nuclear Safety Documentation to support recovery activities
  - U/G Ventilation System Operation
  - Entries
  - Processing of existing surface CH waste
  - Venting of Type B packages
- Cleaning of the Waste Hoist Tower and Waste Hoist Components
- Replacement of U/G Ventilation System Filters
Phase II – Recovery and Resumption of Operations

- ESS Documents to support recovery activities and DSA Revision
- Underground restoration
- Panel 6 Initial Closure and Panel 7, Room 7 Closure
- Interim Ventilation Modifications
- Supplemental Ventilation Modifications
- Safety Management Program (SMP) Revitalization
- New Ventilation System
- Readiness Activities
Interim Performance Measurement Baseline (PMB)

What is the interim PMB?

• WIPP is an Management and Operations (M&O) contract. Under an M&O contract, work activities are managed as a level of effort

• Although the WIPP site is not processing TRU waste at this time, there continue to be operational and business activities that must be performed under the M&O contract

• The WIPP Recovery effort is being managed separately, as a project with discrete resource loaded schedule activities and a detailed cost estimate reflective of the schedule activities

• The interim PMB presents the scope, cost and schedule activities that comprise the WIPP recovery and commencement of waste emplacement operations, including both operating and capital asset project scopes of work

• The interim PMB was established in July and has been refined as new information has been learned regarding the recovery effort, without the need for a formal change control process. The interim PMB is the basis for the final PMB, which is considered the baseline for the recovery effort

• Changes to the scope, schedule and estimate are being managed through a formal Change Control Process

• Execution of the PMB as presented is contingent on adequate funding in out years, and no major changes to assumptions for current year funding
How was the Interim PMB developed?

Execution of the PMB is contingent on adequate funding in outyears, and no major changes to assumptions for current year funding.
Work Breakdown Structure

1.0 TRU Waste

1.7 WIPP Recovery Project

1.7.1 Facility Program Enhancements
- 1.7.1.01 Nuclear Safety Program
- 1.7.1.02 Emergency Management Program
- 1.7.1.03 Radioactive and Hazardous Waste Management Program
- 1.7.1.04 Human Factors Program
- 1.7.1.05 Testing/Surveillance/Maintenance Program
- 1.7.1.06 Conduct of Operations Program
- 1.7.1.07 Fire Protection Program
- 1.7.1.08 Procedures and Training Program
- 1.7.1.09 Quality Assurance Program
- 1.7.1.10 Radiation Protection Program
- 1.7.1.11 Industrial Safety Program
- 1.7.1.12 Engineering Program
- 1.7.1.13 Contractor Assurance Program
- 1.7.1.14 Hazardous Material Protection Program
- 1.7.1.15 Decontamination and Decommissioning Program
- 1.7.1.16 Criticality Safety Program
- 1.7.1.17 Integrated Safety Management System Program
- 1.7.1.18 Work Control Program

1.7.2 Placeholder
- 1.7.2.01 Placeholder

1.7.3 Documented Safety Analysis
- 1.7.3.01 Placeholder
- 1.7.3.02 Evaluation of the Safety of the Situation (ESS) Revisions
- 1.7.3.03 Documented Safety Analysis (DSA) Revision

1.7.4 Underground Habitability/Operations
- 1.7.4.01 Decontamination and Remediation (D&R)
- 1.7.4.02 Underground Stabilization
- 1.7.4.03 Interim Ventilation System
- 1.7.4.04 Supplemental Ventilation
- 1.7.4.05 Underground Equipment/Systems
- 1.7.4.06 Panel /Room Closures

1.7.5 Facility Upgrades
- 1.7.5.01 Salt Host Controller Upgrade
- 1.7.5.02 Waste Host Controller Upgrade
- 1.7.5.03 Temporary Office Space
- 1.7.5.04 Temporary Change Facility
- 1.7.5.05 Placeholder
- 1.7.5.06 Placeholder
- 1.7.5.07 In Town Emergency Operations Center (EOC)

1.7.6 Waste Placement
- 1.7.6.01 Waste Handling Operations

1.7.7 Readiness for Operations
- 1.7.7.01 Line Management Assessment/Readiness Assessment/ORR

1.7.8 Program Management Support
- 1.7.8.01 Administrative Programs

1.8 Permanent Ventilation System

1.8.1 Ventilation Equipment Project
- 1.8.1.01 Ventilation Equipment Requirements and Design Criteria
- 1.8.1.02 Ventilation Equipment Design
- 1.8.1.03 Ventilation Equipment Procurement and Fabrication
- 1.8.1.04 Ventilation Equipment Installation and Construction
- 1.8.1.05 Ventilation Equipment Regulatory Documents
- 1.8.1.06 Ventilation Equipment Documented Safety Analysis (DSA)
- 1.8.1.07 Ventilation Equipment Readiness for Operations
- 1.8.1.08 Ventilation Equipment Program Management Support

1.8.2 Shaft and Drifts Project
- 1.8.2.01 Shaft and Drifts Requirements and Design Criteria
- 1.8.2.02 Shaft and Drifts Design
- 1.8.2.03 Placeholder
- 1.8.2.04 Shaft and Drifts Installation and Construction
- 1.8.2.05 Shaft and Drifts Regulatory Documents
- 1.8.2.06 Placeholder
- 1.8.2.07 Placeholder
- 1.8.2.08 Shaft and Drifts Program Management Support
Basis of Estimate (BOE)

- Critical element in the project management process.
- Realistic costs of an item or activity and the availability of resources and funding are key considerations in building an executable baseline.
- CBFO reviews the BOE as part of the PMB approval process, assessing the reasonableness and completeness of the contractor estimates.
- The BOE provides the foundation of the recovery portion of the CBFO budget request(s).
- The BOE includes a scope description, cost uncertainty range, the method used to measure performance, methodology to develop the estimate, existing data to support the estimate, estimating assumptions, etc.
- Different estimation methods are used, e.g., historical costs, expert opinion, subcontractor quotes, management judgment, and activity-based detailed estimates.
Interim PMB – Risk Approach

How were risks identified?

Technical and Programmatic Risk

- Risks were identified for all areas of recovery scope during the Framework development and refined during the Interim PMB development. Likelihood and consequence thresholds were established for the Interim PMB and used to grade risks. Risk handling strategies were developed for risks and the post handling impact data used to derive a Management Reserve and contingency using a Monte Carlo analysis.

Estimate Uncertainty

- Estimate uncertainty was derived from estimate ranges (BOE sheets). The low, base and high range values were modeled using the Monte Carlo techniques to derive Management Reserve (MR) and DOE contingency.

- The MR and DOE contingency for the permanent ventilation projects (Capital projects) were estimated based on the upper most bounded range of the rough order of magnitude (ROM) estimates due to the uncertainty in the scope definition. The estimate will be refined as the scope is more clearly defined.

Schedule Uncertainty

- The schedule uncertainty was derived by Pertmaster schedule analysis for the recovery scope.

Risk based, estimate and schedule uncertainties are used to derive Total MR and DOE contingency.
Interim PMB Risk Matrix

<table>
<thead>
<tr>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>EPA requires DOE to submit a POR for changes resulting from the supplemental ventilation system.</td>
<td>DOE</td>
<td>2.4.04</td>
<td>Daily</td>
<td>Although a regulatory analysis showed that a POR is not required, EPA may require DOE to submit a POR</td>
<td>Unlikely</td>
<td>Mitigate</td>
<td>Conduct discussions and organize meetings to ensure that DOE is well placed to support the review and mitigation of the supplemental ventilation system.</td>
<td>Likely</td>
<td>Compliance basis</td>
<td>$K</td>
<td>$K</td>
<td>$K</td>
<td>$K</td>
<td>$K</td>
<td>$K</td>
<td>$K</td>
<td>$K</td>
<td>1</td>
</tr>
</tbody>
</table>

**Sample page**
**WIPP Cost Summary—WIPP Recovery Plan**

*Restoration of WIPP to full operations will require additional capital asset project(s). A permanent ventilation system with a cost range of $77 - $309 million, pending completion of an alternatives analysis. These cost estimates are preliminary and will be refined as the alternative(s) are determined and detailed planning is developed and as uncertainties are reduced.*

<table>
<thead>
<tr>
<th>WBS</th>
<th>Event Recovery Project</th>
<th>FY2014</th>
<th>FY2015</th>
<th>Outyears</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.7.1</td>
<td>Facility Program Enhancements</td>
<td>$8,174</td>
<td>$38,733</td>
<td>$10,718</td>
<td>$57,625</td>
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<tr>
<td>1.7.3</td>
<td>Documented Safety Analysis</td>
<td>$2,374</td>
<td>$3,015</td>
<td>$0</td>
<td>$5,389</td>
</tr>
<tr>
<td>1.7.4</td>
<td>Mine Habitability/Operations</td>
<td>$12,230</td>
<td>$57,852</td>
<td>$25,985</td>
<td>$96,066</td>
</tr>
<tr>
<td>1.7.5</td>
<td>Facility Upgrades</td>
<td>$825</td>
<td>$6,454</td>
<td>$3,960</td>
<td>$11,239</td>
</tr>
<tr>
<td>1.7.6</td>
<td>Waste Placement</td>
<td>$0</td>
<td>$86</td>
<td>$7,092</td>
<td>$7,178</td>
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<tr>
<td>1.7.7</td>
<td>Readiness for Operations</td>
<td>$0</td>
<td>$0</td>
<td>$9,983</td>
<td>$9,983</td>
</tr>
<tr>
<td>1.7.8</td>
<td>Program Management Support</td>
<td>$4,603</td>
<td>$30,216</td>
<td>$19,684</td>
<td>$54,504</td>
</tr>
<tr>
<td>1.7</td>
<td>Recovery Project Total</td>
<td>$28,206</td>
<td>$136,356</td>
<td>$77,421</td>
<td>$241,983</td>
</tr>
</tbody>
</table>

Note: Costs in $thousands.
Interim PMB – Monitoring of Progress

How is the WIPP Recovery Project implemented and tracked?

**Plan of the Day (POD) meetings (Monday – Friday)**
- Review of the current two week window of schedule activities
- The Champions status schedule activities to be performed in that window that are scheduled to start or scheduled to complete
- Issues that would prevent activities from starting or completing as scheduled are discussed and a path forward is developed to minimize impact

**Plan of the Week meetings (Wednesday)**
- A review of the activities that are on critical path (have no schedule float or is impacting the start of waste emplacement milestone)
- Actions are taken to mitigate the critical path activities

**Monthly Project Status Meetings with CBFO**
- Cost and schedule performance are reviewed against the baseline

**Monthly Change Control Board Meeting**
- Changes to the baseline (schedule or cost) that impact schedule milestones or cost impacts greater than $250,000 are reviewed.
<table>
<thead>
<tr>
<th>Milestone</th>
<th>Description</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Completion of moderate and high efficiency filter change out</td>
<td>Current filtered ventilation system returned to full operation</td>
<td>3rd Qtr FY14 Completed</td>
</tr>
<tr>
<td>Start of underground entries</td>
<td>Planned execution of entry to the underground</td>
<td>4th Qtr FY14 Completed</td>
</tr>
<tr>
<td>Release of zone 1a RBA (radiological buffer zone) for work</td>
<td>Completion of radiological survey and clear demarcation of RBA</td>
<td>4th Qtr FY14 Completed</td>
</tr>
<tr>
<td>NMED - Submit Interim Ventilation Regulatory Review</td>
<td>Development and submittal of planned changes to the permitted facility and appurtenances</td>
<td>4th Qtr FY14 Completed</td>
</tr>
<tr>
<td>Start of bolt catchup</td>
<td>Resumption of bolting activities in first cleared RBA/clean area</td>
<td>1st Qtr FY15</td>
</tr>
<tr>
<td>Restart of the waste hoist</td>
<td>Waste hoist returned to service following cleaning from soot damage and completion of all preventative maintenance</td>
<td>1st Qtr FY15</td>
</tr>
<tr>
<td>Approval of Critical Decision (CD) 0</td>
<td>CD-0 Approval of mission need for the permanent ventilation system (PVS) capital line-item project</td>
<td>1st Qtr FY15</td>
</tr>
<tr>
<td>NMED - Submit PMR to Address 200,000 scfm RAA</td>
<td>Development and submittal of a Permit Modification Request (PMR) to address the change from 200,000 scfm annual running average (RAA) of U/G ventilation</td>
<td>2nd Qtr FY15</td>
</tr>
<tr>
<td>Completion of Panel 6 Initial Closure</td>
<td>Expedited initial closure of Panel 6, including development of closure approach, design, and installation</td>
<td>2nd Qtr FY15</td>
</tr>
<tr>
<td>NEPA - Perform Supplemental Ventilation Env Impact Analysis</td>
<td>Analysis of environmental impacts to human health and the environment. Regulatory analysis. Approved by CBFO NEPA Compliance Officer</td>
<td>2nd Qtr FY15</td>
</tr>
<tr>
<td>NEPA - Perform Interim Ventilation Env Impact Analysis</td>
<td>Analysis of environmental impacts to human health and the environment. Regulatory analysis. Approved by CBFO NEPA Compliance Officer</td>
<td>2nd Qtr FY15</td>
</tr>
<tr>
<td>Start of decontamination area 1c</td>
<td>Initiate decontamination of area 1c (removal of equipment)</td>
<td>2nd Qtr FY15</td>
</tr>
<tr>
<td>Completion of all uncontaminated Zone survey, cleaning, and maintenance</td>
<td>Completion of areas 1a, 1b, 2, 3, 4, 5, and 6</td>
<td>2nd Qtr FY15</td>
</tr>
<tr>
<td>NMED - Submit Supplemental Ventilation PCN</td>
<td>Development and submittal of planned changes to the permitted facility and appurtenances</td>
<td>2nd Qtr FY15</td>
</tr>
<tr>
<td>Completion of corrective actions and SMP activities</td>
<td>Completion of pre-start and post-start corrective actions and SMP activities</td>
<td>3rd Qtr FY15</td>
</tr>
<tr>
<td>Approval of Critical Decision (CD) 1*</td>
<td>CD-1 Approval of alternative selection and cost range for the PVS shaft/drifts</td>
<td>3rd Qtr FY15</td>
</tr>
<tr>
<td>Approval of Critical Decision (CD) 1*</td>
<td>CD-1 Approval of alternative selection and cost range for the PVS equipment</td>
<td>3rd Qtr FY15</td>
</tr>
<tr>
<td>Completion of Interim Ventilation System</td>
<td>Completion of installation, startup, and testing of supplemental skid-mounted HEPA units to provide incremental airflow in the underground</td>
<td>4th Qtr FY15</td>
</tr>
<tr>
<td>Completion of DSA Revision 5</td>
<td>Completion of a DSA revision that reflects current underground conditions and eliminates compensatory measures prior to waste emplacement Operations and includes DOE/CEFO review and implementation</td>
<td>4th Qtr FY15</td>
</tr>
<tr>
<td>Completion of Supplemental Ventilation</td>
<td>Provide additional airflow on the clean side of the underground enabling operations on a reduced scale</td>
<td>4th Qtr FY15</td>
</tr>
<tr>
<td>Completion of decontamination activities to affix radioactive contaminate in panel 7</td>
<td>Release of panel 7</td>
<td>4th Qtr FY15</td>
</tr>
<tr>
<td>Key Milestones</td>
<td></td>
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<tr>
<td>---------------</td>
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</tr>
<tr>
<td><strong>Milestones</strong></td>
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<tr>
<td>Page 2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Milestone</th>
<th>Description</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>EPA - Submit the PCN to excavate a new access drift and to drill shaft.</td>
<td>40 CFR 194.4(b)(3), 40 CFR Part 191, Subpart A.</td>
<td>1st Qtr FY16</td>
</tr>
<tr>
<td>NEPA - Perform Permanent Ventilation Env Impact Analysis</td>
<td>Analysis of environmental impacts to human health and the environment. Regulatory analysis.</td>
<td>1st Qtr FY16</td>
</tr>
<tr>
<td>EPA - Submit the Regulatory review for new surface filtration and</td>
<td>40 CFR 194.4(b)(3) and 40 CFR Part 191, Subpart A.</td>
<td>1st Qtr FY16</td>
</tr>
<tr>
<td>monitoring systems</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NMED - Submit Permanent Ventilation PCN</td>
<td>Development and submittal of planned changes to the permitted facility and appurtenances</td>
<td>1st Qtr FY16</td>
</tr>
<tr>
<td>Approval of Critical Decision (CD) 2*</td>
<td>CD-2 Approval of performance baseline for the PVS shaft/drifts.</td>
<td>1st Qtr FY16</td>
</tr>
<tr>
<td>Approval of Critical Decision (CD) 2*</td>
<td>CD-2 Approval of performance baseline – PVS equipment.</td>
<td>1st Qtr FY16</td>
</tr>
<tr>
<td>Approval of Critical Decision (CD) 3*</td>
<td>CD-3 Approval for start of construction for the PVS shaft/drifts.</td>
<td>2nd Qtr FY16</td>
</tr>
<tr>
<td>Authorization to proceed – Commence Waste Emplacement Operations</td>
<td>Completion of readiness process for Commence Waste Emplacement Operations addendum.</td>
<td>2nd Qtr FY16</td>
</tr>
<tr>
<td>Completion of Contaminated Zones</td>
<td>Completion of decontamination of Zones 8 and 9.</td>
<td>2nd Qtr FY16</td>
</tr>
<tr>
<td>Completion of DSA Addendum</td>
<td>Completion of a DSA addendum prior to Permanent Ventilation.</td>
<td>2nd Qtr FY16</td>
</tr>
<tr>
<td>Capability to emplace site derived waste</td>
<td>NWP will be capable of emplacing the first package of site derived waste.</td>
<td>2nd Qtr FY16</td>
</tr>
<tr>
<td>Capability to emplace above ground stored TRU waste</td>
<td>NWP will be capable of emplacing the first package of stored TRU waste in panel 7.</td>
<td>3rd Qtr FY16</td>
</tr>
<tr>
<td>NMED - Submit Permanent Ventilation PMR</td>
<td>Development and submittal of a PMR to address the new exhaust shaft.</td>
<td>3rd Qtr FY16</td>
</tr>
<tr>
<td>Capable of receiving offsite TRU waste from generator site</td>
<td>Receipt of TRU waste from generator site for emplacement in panel 7.</td>
<td>3rd Qtr FY16</td>
</tr>
<tr>
<td>Completion of Salt Hoist Controller Upgrade</td>
<td>Phased upgrade to the Salt Hoist Controls to minimize system outage.</td>
<td>2nd Qtr FY17</td>
</tr>
<tr>
<td>Approval of Critical Decision (CD) 4*</td>
<td>Completion of the Readiness process for utilizing the permanent ventilation system.</td>
<td>1st Qtr FY16</td>
</tr>
<tr>
<td>Completion of Waste Hoist Controller Upgrade</td>
<td>Phased upgrade to the Waste Hoist Controls to minimize system outage.</td>
<td>2nd Qtr FY18</td>
</tr>
<tr>
<td>Startup of the PVS system - Authorization to Proceed – PVS</td>
<td>Completion of installation, startup, and testing activities for the PVS.</td>
<td>2nd Qtr FY18</td>
</tr>
</tbody>
</table>
Underground Entries

- Initial entries limited to 24 persons due to waste hoist not in service
  - 4 entries/week
  - Daily entries
  - Two entries daily
  - Multi-shift operation

- Increased up to 75 persons on 11/15 when waste hoist available for emergency egress

- Waste hoist expected to be back in full service in the next month
Key Activities (FY14 – mid FY15)

• Zone Cleaning and Habitability
  • Radiological surveys and rollback
  • 60% of u/g rolled back to Controlled Area
• Mine stability inspections
  • Uncontaminated bolting in progress since 11/15.
  • E-140 drift bolting complete
• Smoke remediation/cleaning
  • 60% complete
• Maintenance on required equipment
  • Contaminated bolting equipment restoration in progress

• Challenges
  • Existing ventilation system in filtration mode
  • Limitation on equipment operation due to flow-rate restrictions (60K cfm)
    • 2 pieces of diesel fuel equipment operation
<table>
<thead>
<tr>
<th>Zone</th>
<th>Description</th>
<th>Radiological Contamination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zone 1a</td>
<td>Drift W30 from S90 to S700, Drift E140 from S700 to S90</td>
<td>Uncontaminated</td>
</tr>
<tr>
<td>Zone 1b</td>
<td>Drift W30 from S700 to S1950, Drift E140 from S1950 to S700, and cross drifts at S1000, S1300, S1600 and S1950.</td>
<td>Uncontaminated</td>
</tr>
<tr>
<td>Zone 1c</td>
<td>Drift W30 from S1950 to S3080, Drift E140 from S3080 to S1950, and cross drifts at S2180, S2520, S2750 and S3080.</td>
<td>Contaminated</td>
</tr>
<tr>
<td>Zone 2</td>
<td>Area around the waste shaft station including sumps</td>
<td>Uncontaminated</td>
</tr>
<tr>
<td>Zone 3</td>
<td>Drifts from S-400 to N-1100 including maintenance area</td>
<td>Uncontaminated</td>
</tr>
<tr>
<td>Zone 4</td>
<td>Experimental areas including NEXA, EXO, SDI</td>
<td>Uncontaminated</td>
</tr>
<tr>
<td>Zone 5</td>
<td>Panel 8</td>
<td>Uncontaminated</td>
</tr>
<tr>
<td>Zone 6</td>
<td>Other uncontaminated areas (e.g., panel entry drifts)</td>
<td>Uncontaminated</td>
</tr>
<tr>
<td>Zone 7</td>
<td>Panel 7 including rooms 1 to 7 and the exhaust drifts</td>
<td>Contaminated</td>
</tr>
<tr>
<td>Zone 8</td>
<td>Contaminated areas at the south end of the mine with boundaries defined by characterization</td>
<td>Contaminated</td>
</tr>
<tr>
<td>Zone 9</td>
<td>The exhaust drift and exhaust shaft</td>
<td>Contaminated</td>
</tr>
</tbody>
</table>
Work Steps for Zone Cleanup

1. Update ESS for work in cleared zones
2. Establish survey zones
3. Survey/characterize contamination within zone
4. Establish zone as radiological buffer area (RBA) or contaminated
5. If required, place CAMs and establish connectivity with surface monitoring
6. Place barriers for demarking confirmed clean areas
7. Release RBA areas for other work
   - 7.1 Identify equipment to be used
   - 7.2 Initiate equipment maintenance evaluation
   - 7.3 Prepare work packages as required
   - 7.4 Conduct operations in RBA zones as scheduled (complete actions zone by zone)
     - Conduct mine stability inspections
     - Inspect zone electrical system and clean soot as required
     - Conduct basic housekeeping activities
     - Remove trash to the surface
     - Assess smoke/fire damage
     - Clean components as required
     - Remove permanently damaged materials/equipment to the surface
     - Validate maintenance of equipment in zone
     - Schedule maintenance for equipment
     - Conduct maintenance of equipment
8. Prepare contaminated zones to release for work
   - 8.1 Prepare RWP for the zone
   - 8.2 Ensure boundaries are appropriately marked
   - 8.3 If not already prepared, establish change room facility
   - 8.4 If required, establish monitoring/counting station
   - 8.5 Establish contaminated clothing bins
   - 8.6 Establish transition (survey) zone for moving items from contaminated to non-contaminated areas
   - 8.7 Establish procedure for bagging items for movement from one contaminated zone to another
   - 8.8 Train workers to RWP and radiological worker requirements
   - 8.9 Train workers in donning and doffing techniques
9. Establish hot maintenance shop
   - 9.1 Identify area
   - 9.2 Create tool storage (tool crib) area
   - 9.3 Collect and inventory tools
   - 9.4 Validate calibration of tools and instruments
   - 9.5 Establish process for organizing, segregating and maintaining tools
10. Release contaminated areas for other work
    - 10.1 Identify equipment to be used
    - 10.2 Initiate equipment maintenance evaluation
    - 10.3 Prepare work packages as required
    - 10.4 Conduct operations in contaminated zone as scheduled
      - Conduct mine inspections
      - Inspect zone electrical system & clean soot if needed
      - Conduct basic housekeeping activities
      - Collect trash in central location for survey and disposal
      - Assess smoke/fire damage
      - Clean or remove components as required
      - Conduct maintenance of equipment
Key Activities (FY14 – mid FY16)

• Catch up bolting in uncontaminated areas – started 11/15

• Panel 6 Initial Closure – by end of March
  • Bolting required to access closure area Bolting equipment for contaminated areas being prepared
  • Decontamination testing – water spray and fixative – complete

• Interim Ventilation Installation – skid mounted HEPA units and fans
  • Filters and fans being fabricated
  • Ductwork being fabricated
  • Final procurement package in approval for remainder of electrical and mechanical components

• Decontamination activities in Panel 7 to begin in February

• Catch up bolting in contaminated areas – begin in February
Key Activities - continued

• Supplemental Ventilation Installation – provides additional air flow exhausted from the salt shaft
  • Provides unfiltered air for clean area of u/g for mining operations
  • Provides additional air routed to Panel 7 for waste emplacement
  • Design complete

• DSA Revision 5 – in progress

• Catchup Pattern Bolting

• Corrective Action Plan Implementation
  • Pre-start activities completed

• Safety Management Programs – improvements completed

• Readiness Activities for Resumption of Waste Emplacement Operations
Key Activities (mid FY16 – end of FY18)

• Authorization to Proceed with Commencement of Waste Emplacement Operations

• Place site-generated derived waste and above ground stored waste in the U/G

• Receive waste from generator sites (limited shipments)

• Capital Projects
  • Mission Need Approved by DOE in October 2014
  • Alternatives Analysis scoring completed mid-December
  • Alternatives to be presented to DOE in mid-January
  • Design to begin after determination of alternative to meet the Mission Need
  • Unfiltered ventilation approach reviewed as part of the alternatives analysis
Critical Path

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Questions & Answers