



U.S. DEPARTMENT OF
ENERGY

OFFICE OF
**ENVIRONMENTAL
MANAGEMENT**

Reopening WIPP

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018 Panel: US DOE WIPP Lessons Learned and Return to Operations
Following 2014 Operational Incidents

Waste Management Symposium
March 6, 2017



Agenda

- Events in 2014
- AIB Corrective Actions
- Safety Culture Improvement
- Safety Management Programs Improvement
- Developing & Implementing DSA
- Interim Ventilation System
- Key Activities for Restart
- Rebuilding Public Confidence
- Resumption of Operations
- Lessons Learned



- **Fire Event – February 5, 2014**

- Salt haul truck fire resulted in evacuation of 80 people from the underground
- Fire caused by inadequate preventive maintenance
- Fire suppression was inadequate to extinguish the fire



- **Radiological Event – February 14, 2014**

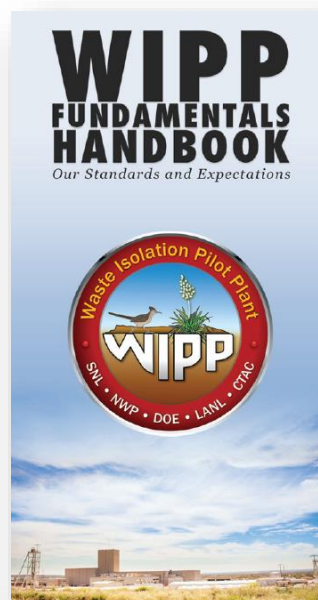
- Non-compliant drum was sent to WIPP and reaction occurred in the underground breaching the drum and releasing radioactive contamination
- Radiological event caused by noncompliance at LANL
- WIPP's radiological and emergency response was inadequate



- AIB JON corrective actions
 - 143 total actions
- Closure actions by investigation
 - 75 Fire AIB Actions completed
 - 44 Rad Phase 1 AIB actions completed
 - 24 Rad Phase 2 AIB actions completed
- Evidence Files



- Values and Expectations
- WIPP Fundamentals Handbook
- Leadership Training
- Human Performance Improvement Initiatives
- Positive Reinforcement
- Management Field Observations
- Communication



- Self/Independent Assessments
- Identified areas needing improvement or gaps
- Established compensatory measures
- Developed corrective actions as appropriate
- Planned/scheduled improvement activities



Documented Safety Analysis

WHAT A SUCCESS!

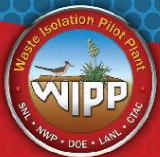
IN LESS THAN ONE MONTH WE HAVE ACHIEVED FULL
DSA^{REV. 5B} IMPLEMENTATION



The WIPP team celebrates in the Central Monitoring Room as the DSA was implemented at midnight May 29.

- Because of your tremendous effort over the last 3 months, including the effort by so many over the Memorial Day weekend, we have fully implemented Documented Safety Analysis (DSA), Rev. 5b!
- This is the first DSA fully compliant with DOE Standard 3009-2014 in the nation.
- It typically takes up to six months from DSA approval to full implementation, and we completed this task less than 1 month after approval of the DSA.
- It's a remarkable accomplishment and every team member should be proud that they did their part to make it happen.

WE ARE MOVING FORWARD TOWARDS COLD OPERATIONS!



This Accomplishment Exemplifies Our Core Values & Expectations:
INTEGRITY - MODEL HIGH STANDARDS and DO WHAT YOU SAY YOU ARE GOING TO DO
TEAMWORK - HELP EACH OTHER ACHIEVE WIPP GOALS

- **Development**
 - ✓ Team approach with DOE-HQ, CBFO & NWP
- **Review/Approval**
- **Implementation**
 - ✓ Took less than a month

Interim Ventilation System

- Brought online last Fall
- Delivers an additional 54,000 cubic feet per minute of air underground
- Interim Ventilation System:
 - Provides adequate air flow at the waste face – for waste emplacement operations
 - Increases airflow for ground control and maintenance operations



Key Activities for Restart

Integrated Cold Operations



Contractor Operational Readiness Review



DOE Operational Readiness Review – Regulator Concurrence



Authorization to Proceed – Commence Waste Emplacement
Operations

Rebuilding Public Confidence

- Community support was key to WIPP's opening
- Confidence waivered after events, but support remains strong
- Transparency is the goal
- Methods for sharing information:
 - New recovery website
 - Addition of social media
 - Dozens of Town Hall meetings cosponsored with City of Carlsbad
 - Regular briefings with local, state and federal elected officials
 - WIPP updates emailed to diverse audience
 - Speaker's bureau engagements
 - Resurrecting limited WIPP tour program



WIPP Tours



Town Hall Meetings

Resumption of Waste Operations

- Resumed operations January 4
- Heroic team effort that involved sacrifice by all
- Dramatic difference between 2014 and today
- Controlled, deliberate approach to resumption of operations



Lessons Learned

- + Focus on Values and Expectations
- + Workshops to gain alignment
- + Use of corporate reach back to address emergent issues
- Significant number of assessments impacted progress
- Alignment of expectations
- Consistent understanding of competing hazards

Questions & Answers

