



U.S. DEPARTMENT OF  
**ENERGY**

OFFICE OF  
**ENVIRONMENTAL  
MANAGEMENT**

# WIPP Status Update

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**August 31, 2016**

- **Path to Resumption of Waste Emplacement**
  - Documented Safety Analysis
  - Cold Operations
  - Management Self Assessment
  - Operational Readiness Reviews
  - Progress on Supplemental Environmental Projects
- **Schedule and Challenges**
  - Ground Control
  - Interim Ventilation System
- **Changes to the National TRU Program**
  - Enhanced Oversight
  - New WIPP Waste Acceptance Criteria (WAC)
  - Generator Site Technical Reviews
- **Path Forward**

## A revised DAS (Rev. 5) was approved on April 29, 2016

- Developed under new DOE Standard 3009-2014, which significantly updated DSA requirements based on experience and lessons learned
- Approximately 120 Safety Management Program procedures created or revised
- Implementation declared complete on May 29



## Cold Operations began June 1, 2016

- WIPP crews successfully processed and downloaded empty waste containers using new DSA Rev. 5 controls
- Regular drills were conducted to test safety management procedures
- Expected completion by August 31, 2016



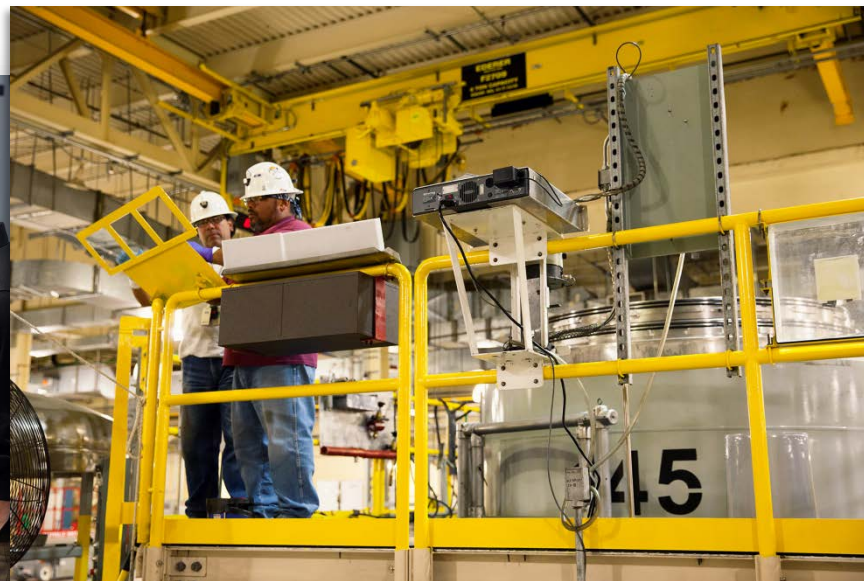
## Management Self Assessment

- Internal review conducted by the WIPP Management & Operations contractor Nuclear Waste Partnership (NWP) to confirm operational readiness
- Management Self Assessment conducted in August
- Performance is based on examinations of facilities, equipment, procedures, and personnel



## Contractor and DOE Operational Readiness Reviews (ORR)

- Performance-based examination of facilities, equipment, personnel, and procedures
- Ensures WIPP can be operated within an approved safety envelope



- WIPP north access road-phase 1 completed
- Regional mine rescue teams- additional training and equipment have been provided
  - WIPP Mine Rescue Teams showed their expertise this spring and summer, winning honors at both regional and national competitions



# Return to Waste Emplacement Operations





**CBFO and NWP are working hard to resume waste emplacement operations. Currently addressing some challenging non-critical path items**

- Ground control remains a priority

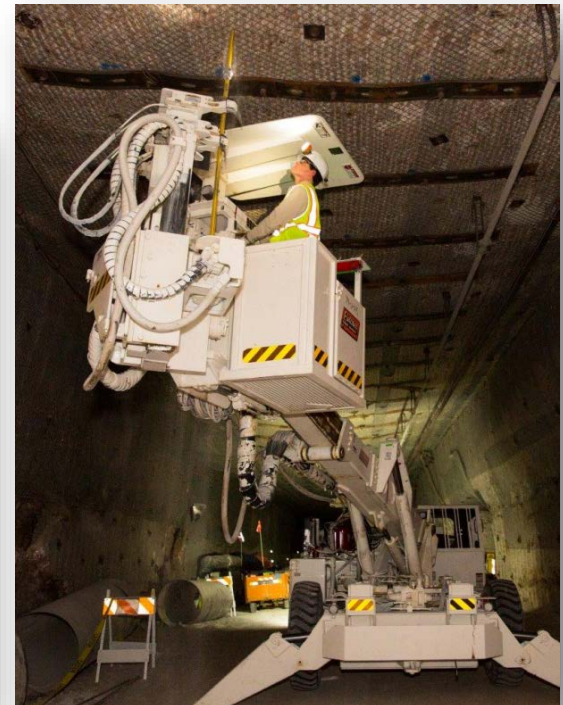
Roof bolt plate



Broken roof bolts



Floor heave



Hybrid bolter

## Interim Ventilation System:



- Contractor management self assessment was performed
- Contractor operational readiness review identified weaknesses
- DOE concluded readiness assessment for IVS
  - One finding and two post-start items have been identified.

## National TRU Program

### Characterization & Certification



### Transportation



### Disposal at WIPP



This presentation  
focuses on  
enhancements to this  
area

## New and Enhanced Oversight of Federal and Contractor Activities

- Increased oversight by Carlsbad Field Office and EM-HQ
- Clearer roles and responsibilities have been defined
  - New National TRU Program Oversight office created at EM headquarters
  - Carlsbad Field Office reorganized to separate oversight and operations functions



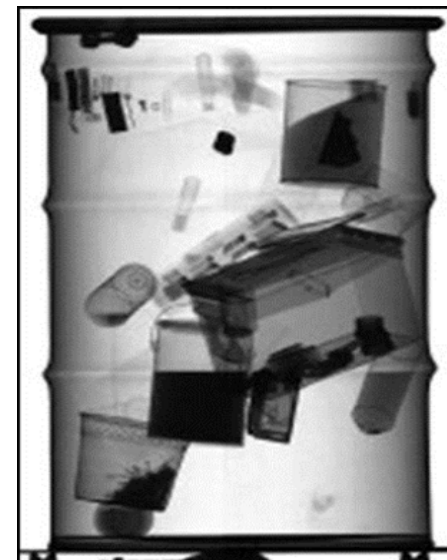
## New Waste Acceptance Criteria (WAC)

- WAC Revision 8 issued June 27, 2016
- Includes changes resulting from findings from the Accident Investigation Board (AIB) Phase 2 report on radiological release
- Incorporates requirements from recently approved DSA Rev. 5 and chemical compatibility studies
- Revised WAC effective July 5, 2016. On that date, site certification programs suspended; will need to be re-certified to resume operations
- All previously certified waste will also be confirmed to meet the new WAC



## New Requirements – Improvement Implementation

- Enhanced Acceptable Knowledge: Detailed re-review of source documentation for potentially incompatible materials and to ensure an adequate information basis
- Chemical Compatibility Evaluations: Identifying the range of possible chemical combinations that could occur in each waste stream using EPA- approved methodology
  - Compares all chemicals and materials in waste
  - Better identifies incompatibilities
- Basis of Knowledge for Oxidizing Chemicals: Waste characterization programs must ensure that appropriate measures are taken to identify and treat waste to avoid potential effects from oxidizing chemicals
  - Based on actual testing
  - Specific tests conducted to better understand reactions
  - Provides recipe for resolution



## Generator Site Technical Reviews (GSTR)

- Will be performed by CBFO and NWP to ensure waste packaging and treatment activities meet requirements
- Verification that generator site controls and waste information meets new enhanced WIPP WAC compliance
- GSTR must be completed to ship waste, including any previously certified waste verified to comply with new WIPP WAC
- Additional quality assurance review must be completed to approve updated programs and allow site certification activities to resume for new waste



- **Striving towards resumption of waste emplacement**
- **Work with the DOE sites to have certified waste ready for shipment**
- **Continue to work on the permanent ventilation system**
  - The new shaft and 55,000 sq. ft. ventilation building will be located east of the existing exhaust shaft
  - Geotechnical Analysis is underway and consists of drilling multiple boreholes to various depths
  - Data will be used to determine bearing capacity, seismic design parameters, and building foundation design
  - This system will provide enough airflow underground for mining and waste emplacement activities to occur concurrently



# Questions?

