






# Status of WIPP Permit Modification Requests

## Environmental Management Advisory Board

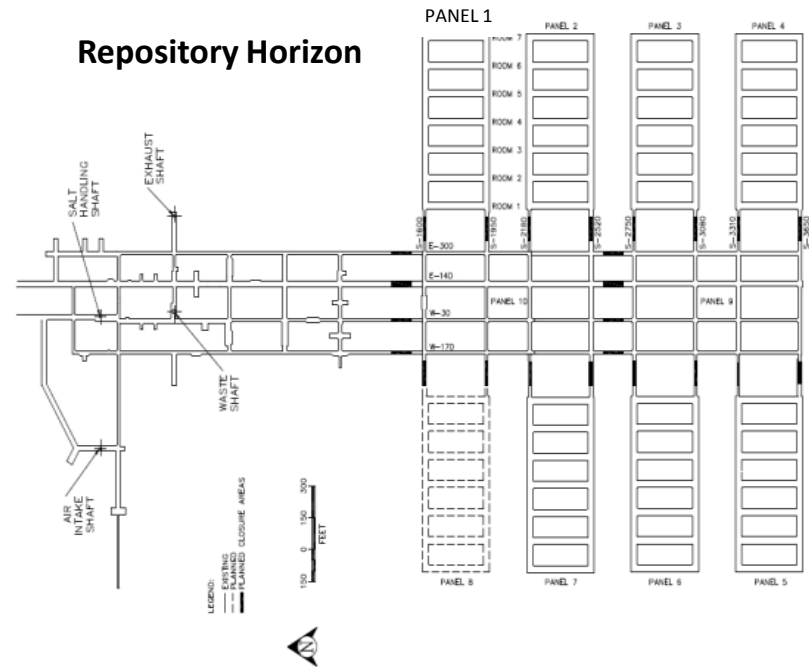
**George T. Basabilvazo**  
**Carlsbad Field Office**  
**April 23, 2019**

# WIPP Regulatory Compliance Framework

	<p><b>U.S. Environmental Protection Agency (EPA)</b>          Long-term repository performance certification, waste characterization inspections, PCB/TRU waste</p>
	<p><b>New Mexico Environment Department (NMED)</b>          RCRA hazardous waste, review and approval of generator storage site audit reports, water discharge, groundwater, air</p>
	<p><b>U.S. Nuclear Regulatory Commission (NRC)</b>          Transportation Type B packages for nuclear materials</p>
	<p><b>U.S. Department of Transportation</b>          Highway transportation, Type A containers</p>
	<p><b>U.S. Department of Energy</b>          Worker Safety &amp; Health Program, Industrial Safety, Nuclear Safety, Occupational Radiation Protection, National Environmental Policy Act</p>

- WIPP geologic repository is defined as a “miscellaneous unit” under 40 CFR §260.10.
- “Miscellaneous unit” means a hazardous waste management unit where hazardous waste is treated, stored, or disposed of and that is not a container, tank, surface impoundment, waste pile, land treatment unit, landfill, incinerator, containment building, boiler, industrial furnace, or underground injection well....
- Miscellaneous unit must follow 40 CFR §264.601. **Environmental performance standards**
- The WIPP geologic repository has been divided into ten discrete hazardous waste management units, 8 of which are permitted for disposal under 40 CFR Part §264 Subpart X.

## DISPOSAL AREA - PANELS 1 THROUGH 10 (HAZARDOUS WASTE DISPOSAL UNITS)



## WIPP Hazardous Waste Facility Permit

### Table of Contents

- PART 1 - GENERAL PERMIT CONDITIONS
- PART 2 - GENERAL FACILITY CONDITIONS
- PART 3 - CONTAINER STORAGE
- PART 4 - GEOLOGIC REPOSITORY DISPOSAL
- PART 5 - GROUNDWATER DETECTION MONITORING
- PART 6 - CLOSURE REQUIREMENTS
- PART 7 - POST-CLOSURE CARE PLAN
- PART 8 - CORRECTIVE ACTION FOR SWMUs and AOCs
- ATTACHMENTS: A through O

## 40 CFR 270.42 Permit Modifications at the Request of the Permittees

### Classification:

- **Class 1 Permit Modification Notification (PMN)** – minor changes to keep permit current... do not substantially alter permit conditions
- **Class 2 Permit Modification Request (PMR)** – apply to changes that are necessary to enable Permittees to respond in a timely manner to variations in types and quantities of wastes, technological advancements, new regulations
- **Class 3 Permit Modification Request** – Class 3 modifications substantially alter the facility or its operation.

# Permit Modification Requests (PMRs) & Related Regulatory Activities

Permitting & Regulatory Activity		
Milestone Name	Class	Status
PMR for Clarification of TRU Mixed Waste Disposal Volume Reporting	2(3)	PMR submitted January 2018. Approved December 2018, effective January 2019
PMR for New Shaft & Associated Connecting Drifts	Requested Determination of Class (DOC)	DOC PMR submitted December 2017. NMED request for Information, CBFO response March 2019
PMR for Excluded Waste Prohibition	3	Submitted April 2013 (July 2020)
PMR for Above Ground Storage Capability	3	Submitted September 2016 (July 2020)
10-Year Permit Renewal Application	Similar to a 3	Due 180 days before the Permit expires; December 30, 2020
PMR for Panel 10 Operation	DOC	Fall 2019
NEPA Analyses for Additional Panels	N/A	Fall 2019 to Spring 2020
PMR for Panel 11 Operation & Additional Panels	3	Fall 2020
Planned Change Request (PCR) for Additional Panels	N/A	Summer 2022

# Questions?

# BACK UP

## Completed October 2017 – October 2018:

1. Class 2 - New Filter Building
2. Class 2 - Revised Training Plan
3. Class 2 - New Shaft – submitted for Determination of Class
4. Class 2 (3)– Clarification of TRU Mixed Waste Disposal Volume Reporting
5. Class 3 - Panel Closure Redesign
6. Requested NMED resume processing of the Excluded Waste Prohibition PMR
7. Closed out remaining NMED Administrative Orders
8. Submitted Planned Change Notification (PCN) for the New Shaft
9. Submitted PCN to Change Methodology for Volume of Record reporting
10. Submitted a PCN for no waste in equivalent panel 9 and no run-of-mine-salt panel closure in panels 3 - 6
11. Completed a SA for Permanent Ventilation System
12. Completed a EA & FONSI for North Access Road Bypass
13. Draft EA for Above Ground Storage Capability

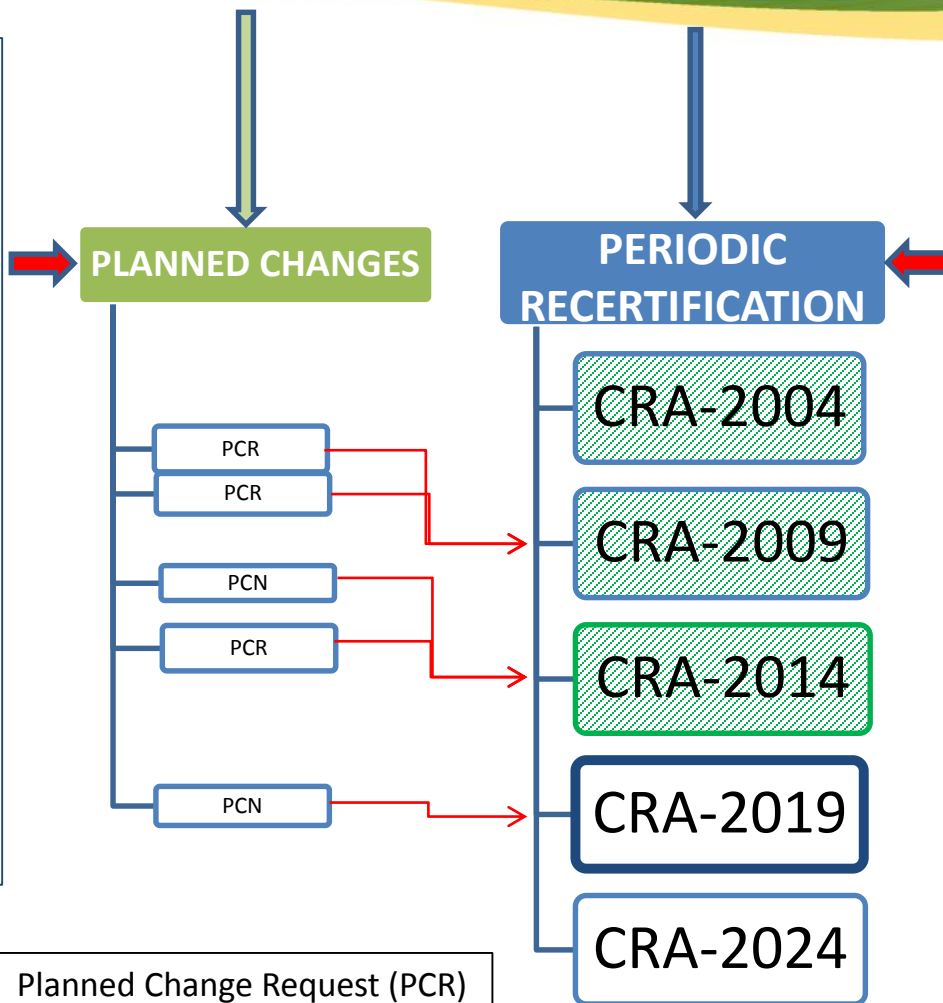


# Generalized 40 CFR 191/194 Regulatory Process

## 40 CFR 194.4 – Conditions of Compliance

In 40 CFR 194.4(b)(3)(i) and (ii), EPA describes the reporting process that the Department shall follow for reporting any **planned or unplanned changes in activities or conditions** pertaining to the disposal system that **differ significantly** from the most recent compliance application.

- Planned Change Request (PCR)
- Planned Change Notice (PCN)



WIPP Land Withdrawal Act, P.L. 102-579, as amended by P.L. 104-201, Section 8(f)

**PERIODIC RECERTIFICATION.**—  
 (1) BY SECRETARY.—  
 Not later than **5 years** after the initial receipt of **transuranic waste** for disposal at WIPP, and **every 5 years thereafter** until the end of the decommissioning phase....

**40 CFR 194.15 - Content of Compliance Recertification Application(s).**

# TRU Waste Emplacement Status

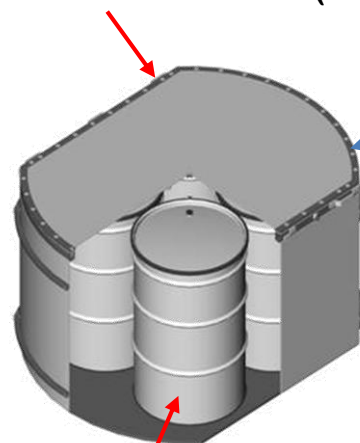


Total Volume as of March 30, 2019:  
 TRU Mixed Waste Total – 95,557 m<sup>3</sup>  
 LWA TRU Waste Total – 67,515 m<sup>3</sup>





Standard Waste Box (SWB)



Inner volume of a SWB:  
Volume = 1.8 m<sup>3</sup>

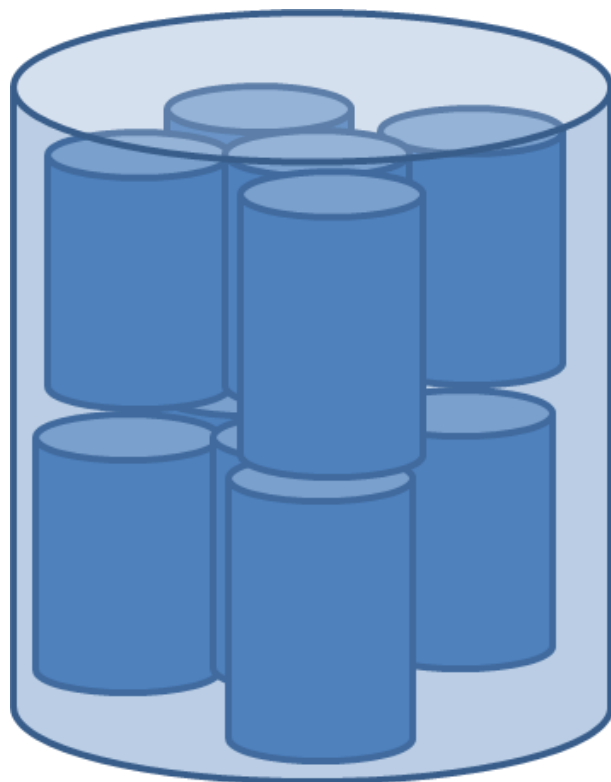
Volume of four (4) 55-gallon drums in a SWB:  
0.21 m<sup>3</sup> x 4 = 0.8 m<sup>3</sup>

55-gallon drum

Primarily used for over-packing  
208-liter drums

Outer volume: 4.5 m<sup>3</sup>

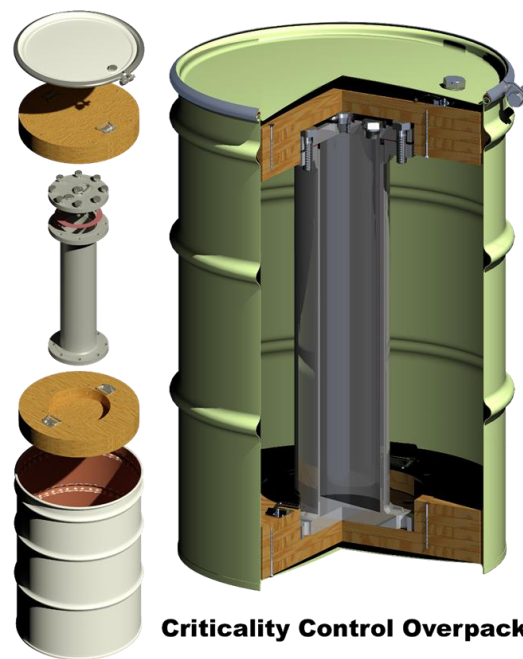
Inner volume of ten drums: 2.1m<sup>3</sup>



Primarily used for shipping larger  
amounts of fissile material (<380g)

Outer volume: 0.21 m<sup>3</sup>

Inner volume : 0.0128 m<sup>3</sup>



**Criticality Control Overpack**