

# WIPP CAPACITY

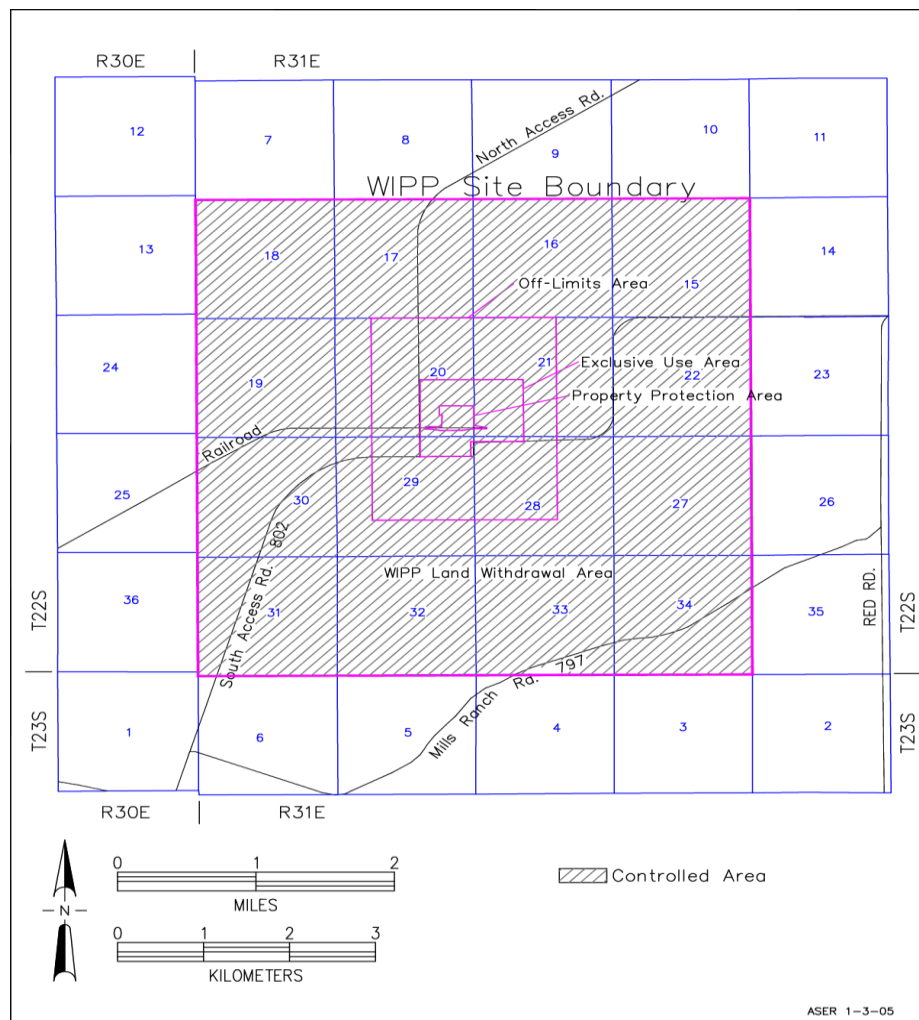
## National Academy of Sciences

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- The WIPP Land Withdrawal Act (LWA), Public Law 102-579, authorizes WIPP for disposal of up to 175,565 cubic meters (6.2 million cubic feet) of transuranic (TRU) waste.
  - Up to 7,079 cubic meters (250,000 cubic feet) of TRU waste can be remote handled – DOE 1981 & 1998 ROD, and 1997 SEIS-II.
- Drums and boxes assumed to be full, based on inventory estimates from late 1970's & early 1980.
- Although recognized as a possibility, overpack was not assumed.
- Volume was based on original 1980 assumptions of TRU waste in interim storage in Idaho, an enduring mission at Rocky Flats and continued plutonium missions at Hanford and Savannah River.
- There is no specific disposal configuration specified in the LWA other than the requirement to stay within the 16 square mile land withdrawal boundary.
- LWA Sec. 7(3) CAPACITY OF WIPP.— The total capacity of WIPP by volume is 6.2 million cubic feet of transuranic waste.
- As of June, 2018 – **93,500 cubic meters** of TRU waste emplaced in WIPP.

# WIPP Statutory Capacity

Less than one square mile at a single horizon has been used thus far.



# Panel Regulatory Capacity

- For operational efficiencies, WIPP handles all TRU waste as mixed TRU waste
- Each Hazardous Waste Disposal Unit (Panel 1-8) was permitted for 18,000-19,400 cubic meters of TRU mixed waste.
- Panel 9 not planned for disposal.
- Panel 10 may be used but must be permitted by the state for use.
- Per the WIPP Hazardous Waste Facility Permit, “The maximum repository capacity of “6.2 million cubic feet of transuranic waste” is specified in the WIPP Land Withdrawal Act (Pub. L. 102-579, as amended)
- It is estimated that after Panel 8 is filled, the emplaced WIPP repository volume will be 115,000 to 120,000 cubic meters.

# WIPP Volume Capacity--Current and Projected Volumes

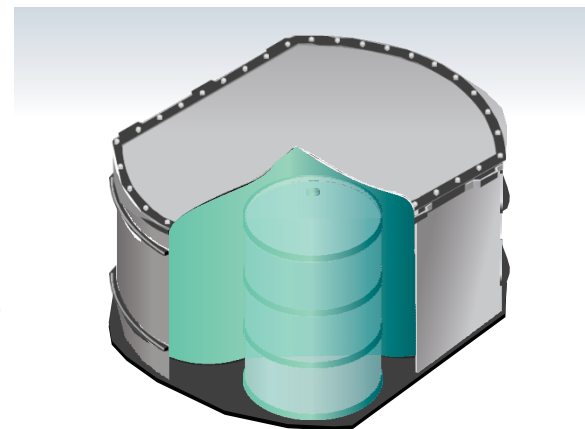
TRU Waste Inventories	Current Permit— Calculates Volume of Outer Container Cubic meters (m <sup>3</sup> )	Permit Modification-- Changes Volume of Record to Inner Container (m <sup>3</sup> )	Notes
TRU Waste Already Emplaced at WIPP	93,500	~-30%	WDS data through mid-June
"WIPP-Bound" Best Estimates **	~78K	~-15%	Data cutoff 12/31/16; Includes 6 metric tons (MT) of surplus Pu~5K m <sup>3</sup> ; Source: DOE/TRU-17-3425
SubTotal: Already Emplaced + WIPP-Bound	~172K		
<b>UNSUBSCRIBED CAPACITY</b>	~4K	>40K	Volume below WIPP LWA Limit of 175,565 m <sup>3</sup>
"Potential Inventory" Estimates**	~19K		Data cutoff 12/31/16; Source: DOE/TRU-17-3425
Total Emplaced, WIPP-Bound, and Potential Waste**	~191K	~150K	191K – 40K = ~150K

\*\* Estimates will vary as estimates are updated and waste is packaged.

- Definitions:
- WIPP-Bound – this is waste already in storage or projected to be generated in the future and is expected to meet the WIPP waste acceptance criteria, currently totaling approximately 78,000 m<sup>3</sup>;
- Potential Waste – this is waste that may be intended for WIPP but requires resolution of a regulatory or other constraint before it may be considered, currently totaling approximately 19,000 m<sup>3</sup>; and

# WIPP Volume of Record

- “Volume of Record” to track compliance with this limit has generally been determined by using the outer container volume for CH-TRU waste.
- Because many drums are “overpacked” in larger containers, using the outer container volume counts a significant amount of void space as waste.
- DOE/CBFO proposes to change the calculation method so the Volume of Record better reflects the volume of waste disposed.
- For tracking the TRU waste volume with WIPP LWA capacity limit the new methodology will count the volume of the inner container in cases where CH TRU waste is overpacked.
- The waste volume of direct loaded containers will continue to be the outer container.
- For compliance with the RCRA Hazardous Waste Facility Permit, the outer container is proposed.
- Under the new methodology, the calculated volume of waste already emplaced is reduced by about 30%, and future WIPP-bound waste by 15%.



- NMED determined the PMR will follow the Class 3 PMR procedures, which consists of the following major steps;
  - NMED will likely provide a Technical Incompleteness Determination (TID).
  - WIPP responds to the TID.
  - NMED prepares a draft Permit.
  - Minimum 45-day public comment period on the draft Permit.
  - May include Negotiation.
  - May include an administrative Hearing.
  - Findings of Facts and Conclusion of Law produced.
  - Hearing Officer prepares a report
  - NMED Secretary final decision on PMR.
- Submittal of a Planned Change Notice to EPA is performed in parallel.

# Additional Disposal Panels at WIPP

- Conceptual repository design for additional disposal panels being prepared.
- NEPA analysis of the potential environmental consequences from the proposed action associated with adding disposal panels to meet the LWA Capacity limit, increase in operational time frame, and a revised final WIPP facility closure date.
- Permit Modification Request to NMED for construction and use of additional disposal panels.
- Planned Change Request to EPA demonstrating WIPP continues to comply with long-term radioactive waste standards with the new repository design
- Excavate access drifts and additional disposal panels.