

Additional Perspective on the Continuing WIPP Experience

Blue Ribbon Commission on
America's Nuclear Future
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Center

WIPP's mission

- “Start Clean, Stay Clean” to dispose of up to 175,564 m³ of TRU waste
- Safely transport TRU waste through more than 20 states without serious accidents or releases
- Safely clean up TRU waste at DOE sites
- Safely close, decontaminate, and decommission the site beginning in about 2030 or earlier

WIPP's mission is not

- Storage, transportation, disposal of high-level waste
- Storage, transportation, disposal of spent nuclear fuel or any commercial waste

Mission success involves

- Repository design and use
- TRU waste inventory
- DOE and contractor performance

Repository design and use

- Panel 1 Stability - use less than 59% of capacity

Mine other panels closer to the time they will be used

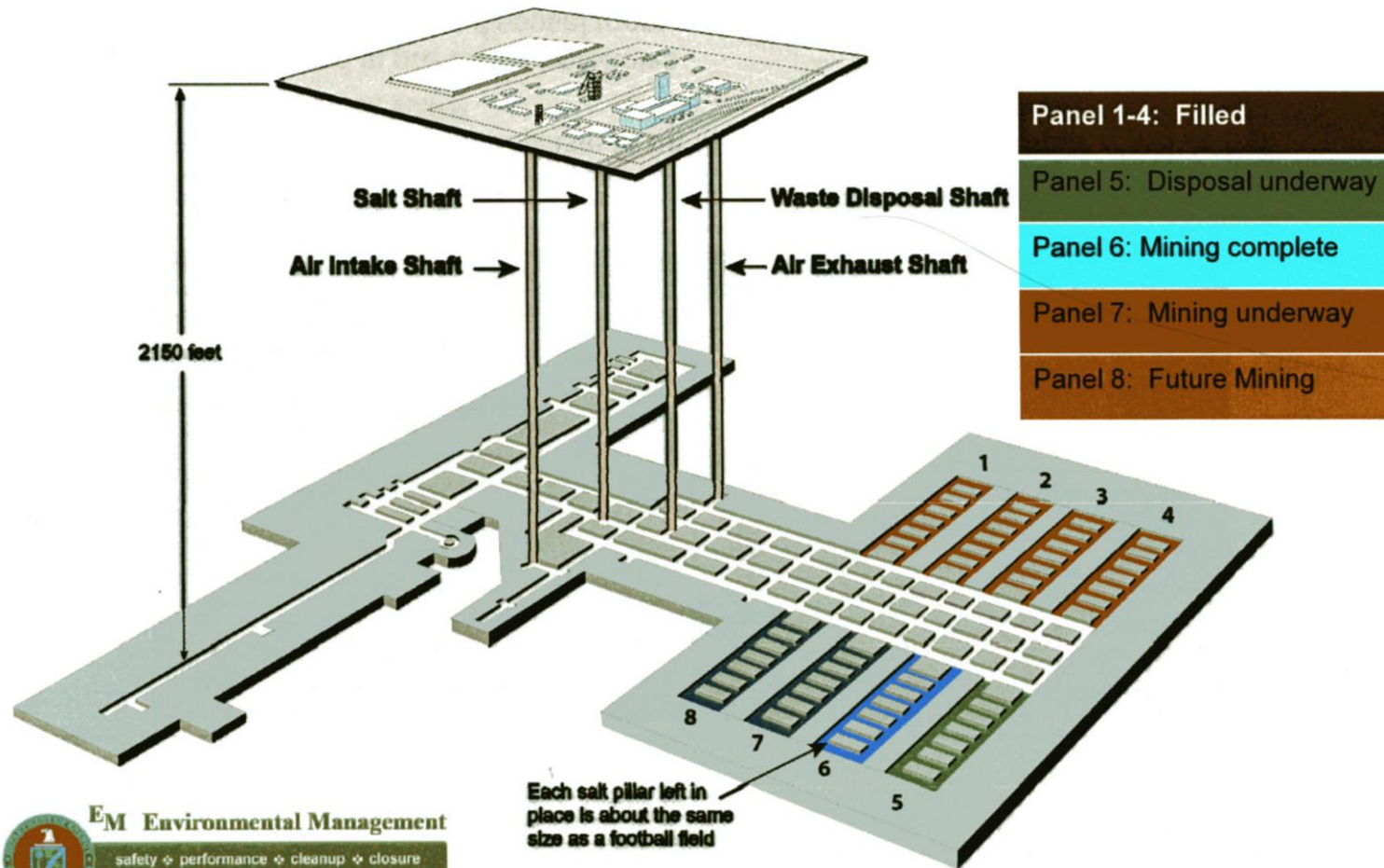
Permitted capacity vs. actual disposal

(in cubic meters)

	CH-Permitted	Actual	% Used	RH-Permitted	Actual	% Used
Panel 1	18,000	10,497	58.32%	0		
Panel 2	18,000	17,998	99.99%	0		
Panel 3	18,750	17,092	91.16%	0		
Panel 4	18,750	14,258	76.04%	356	176	49.44%
Panel 5	18,750	<i>12,354</i>	65.89%	445	221	49.6
Panel 6	18,750			534		
Panel 7	18,750			650		
Panel 8	18,750			650		
Panel 9						
Panel 10						
Totals	148,500	72,199	48.62%	2,635	397	15.07%
Panels 1-4	73,500	59,845	81.42%	356	176	49.44%
Capacity	168,485	72,199	42.85%	7,079	397	5.61%

Note: *Italics indicates open panel, still being filled*

WIPP Disposal Operations



EM Environmental Management

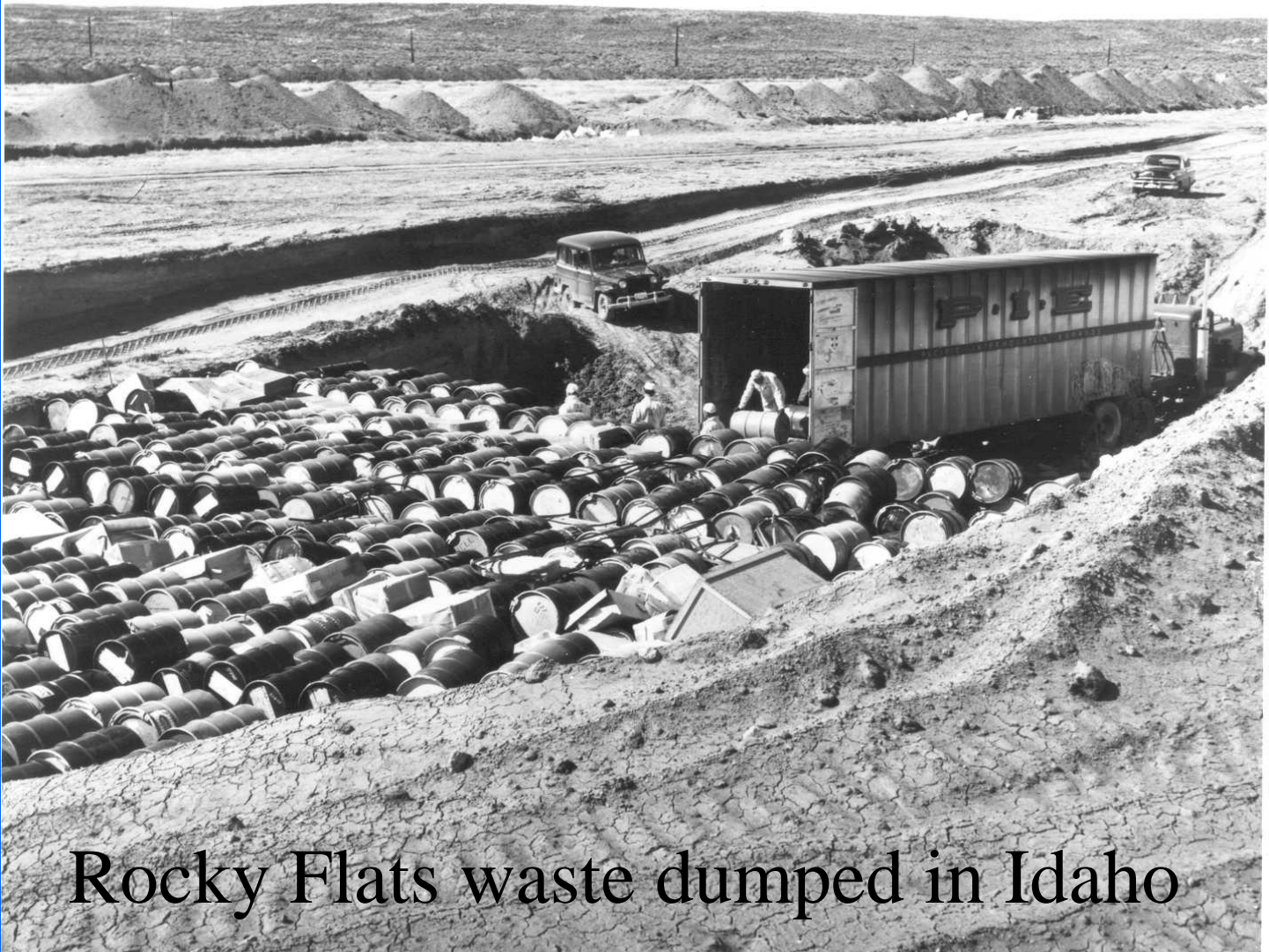
safety ♦ performance ♦ cleanup ♦ closure

www.em.doc.gov

Panels 9 and 10

May not use planned panels

Need new panels?

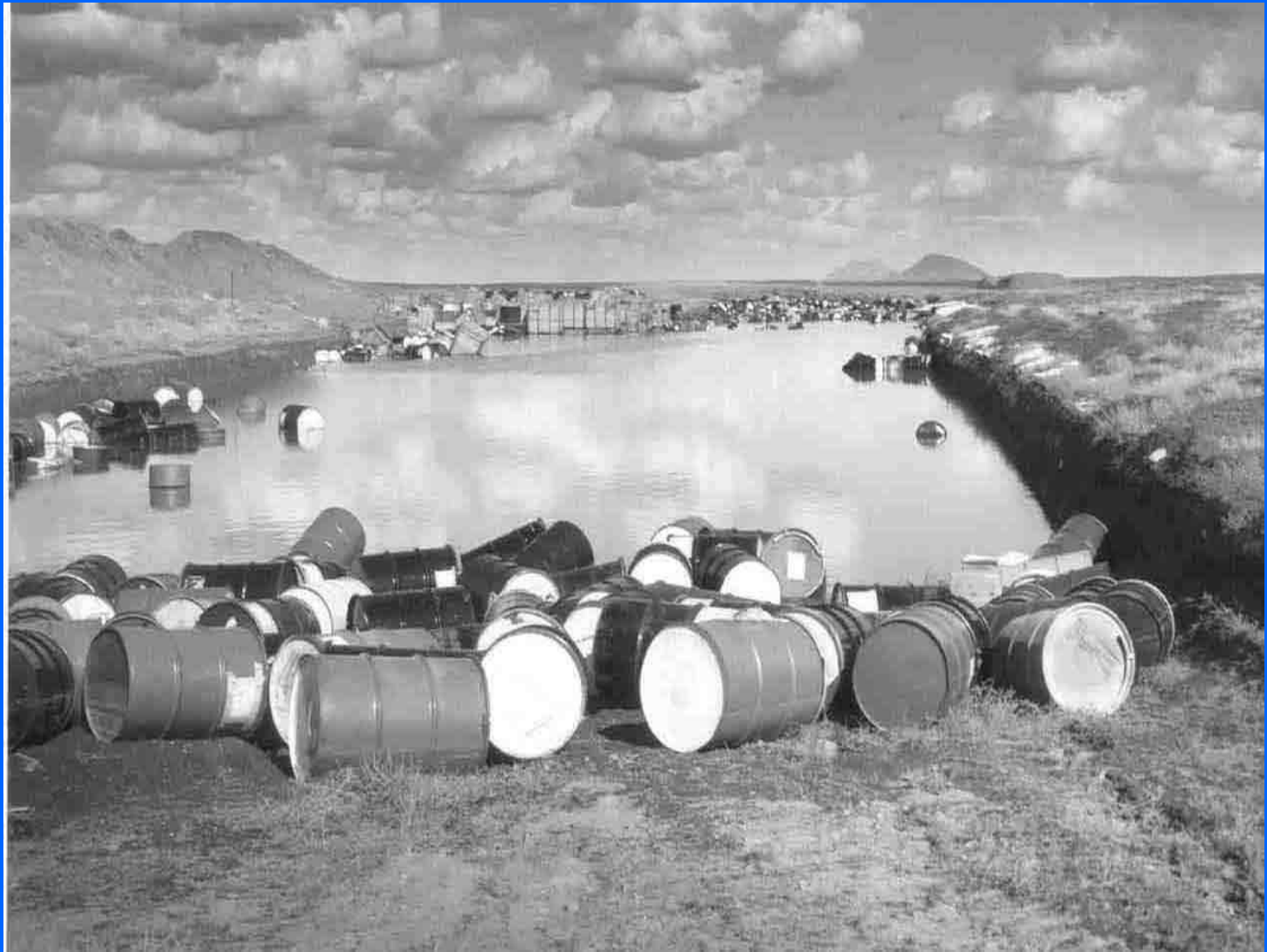


Rocky Flats waste dumped in Idaho

10/07/69 NRTS BURIAL GROUND WASTE DISPOSAL







Current TRU Inventory

CH waste - 140,800 m³

RH waste - 5,420 m³

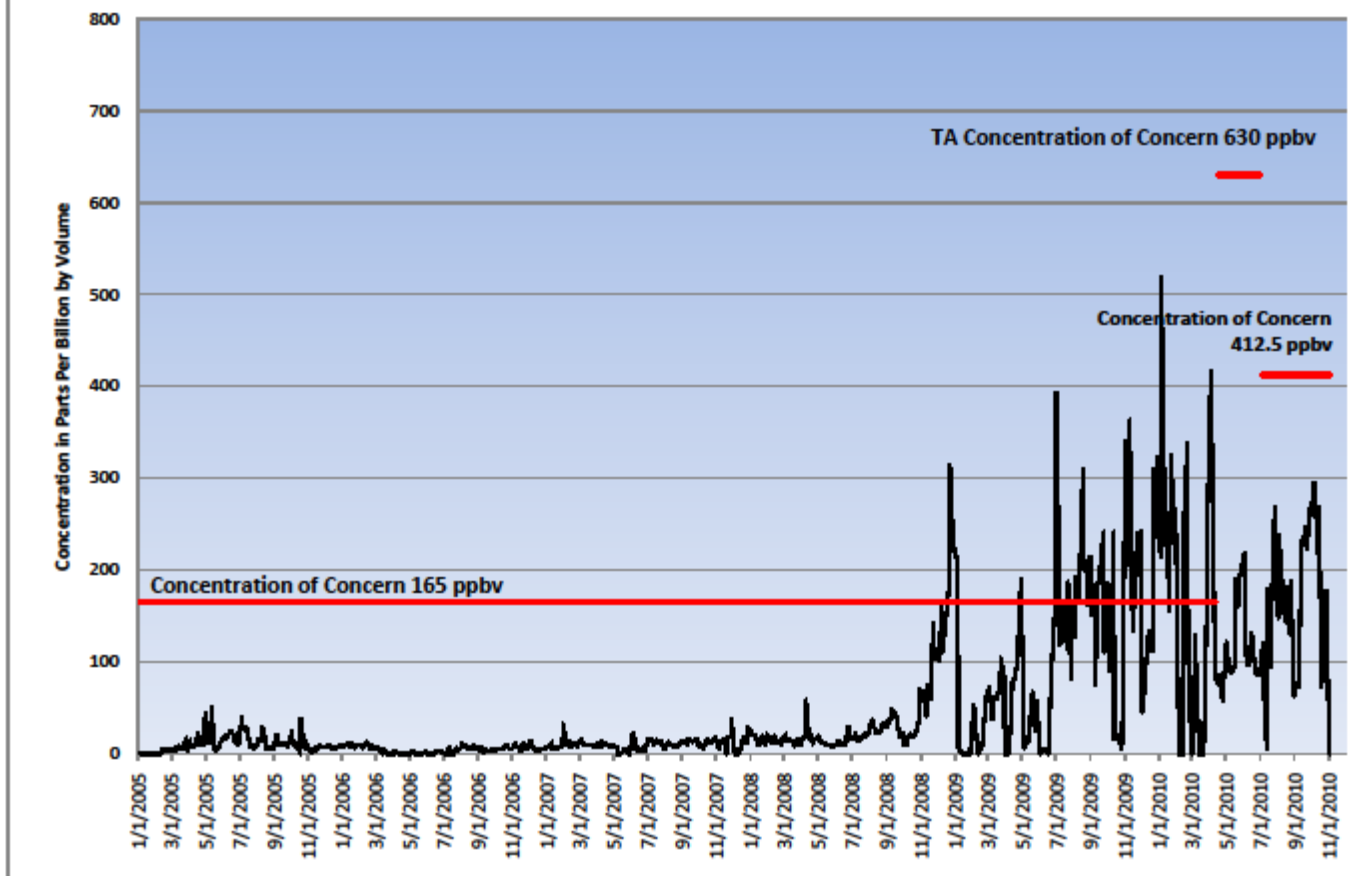
TRU and LLW

(cubic meters)

	<u>Dispositioned</u>	<u>WIPP-CH</u>	<u>LLW</u>	<u>% LLW</u>
FY 2009	10,096	6,117	3,979	39.41%
FY 2010	8,924	7,780	1,144	12.82%
FY 2011	1,563			
FY09-10	19,020	13,897	5,123	26.93%

"Dispositioned" is waste managed as TRU. If assayed as low-level waste, it is not shipped to WIPP, but is counted as waste removed from the storage site.

Concentration Differences Between VOC A and VOC B 1/1/2005 Through 11/3/2010



Carbon Tetrachloride Lessons

- After a decade, VOC monitoring provided erroneous results for more than 6 months
- Carbon tetrachloride problem was not adequately addressed for months, resulting in significant operational changes
- Independent regulation was necessary to detect the problem and address it

Cost & Schedule

- 1997 EIS - \$6.89 billion for 35 years of transportation and operations, 10 years of decommissioning
- 2002 PMP - Lifecycle cost ~ \$16 billion. Save ~ \$8 billion, by disposing most CH waste by end of FY 2012; all CH waste by FY 2015 (save 20 years of CH operations)

WIPP BUDGET REQUESTS, APPROPRIATIONS, PERFORMANCE MEASURES

	<u>2003-2010</u>
DOE REQUEST (in \$000)	\$1,716,557
APPROPRIATION (in \$000)	\$1,815,969
% of Request	105.8%
PERF. MEASURE* (cubic meters)	79,378
ACTUAL DISPOSAL** (cubic meters)	63,055
% of Perf. Measure	79.4%
WIPP PMP***	88,469
% of PMP	71.3%

Sources: *Presidential Requests to Congress, **WIPP WASTE INFORMATION SYSTEM
*** WIPP Performance Management Plan, August 2002

WIPP PMP Goals

- 10,034 m³ of LANL CH waste disposed by September 30, 2010. Actual amount was less than 4,700 m³ - four years behind the schedule.
- Virtually all CH waste disposed by September 30, 2012 - years behind schedule
- All CH waste disposed by September 30, 2015 - years behind schedule

American Recovery and Reinvestment Act

- \$172.375 million for FY 2009 - 2011
- Additional CH disposal of 6,476 m³ (or 8,031 m³)
- Additional RH disposal of 431 m³ (or 487 m³)

Cost & Schedule Lessons

- Waste disposal costs more than estimated
- Waste disposal takes longer than planned, even with extra funds for “acceleration”
- Capacity space can be lost because of trying to meet schedules, rather than optimizing emplacement

Recommendations to the Commission

- Federal policy should continue the prohibitions on high-level waste and spent nuclear fuel at WIPP and in New Mexico.
- WIPP operational and decommissioning phases should be completed before other geologic disposal sites are selected.
- If the federal government builds nuclear weapons for decades in the future, it must develop a new program for TRU waste, not expand WIPP's lifetime.

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