The Waste Isolation Pilot Plant (WIPP)

A Story of Science, Perseverance, Regulatory Frontiers and Politics

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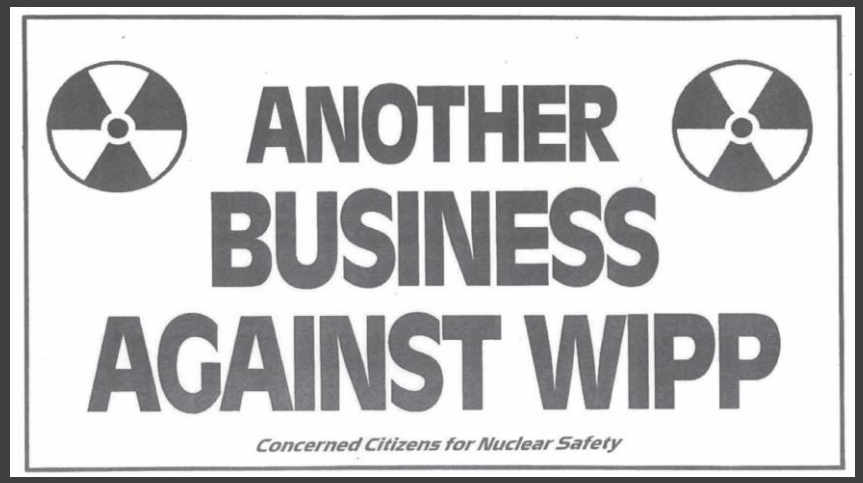
A Brief History

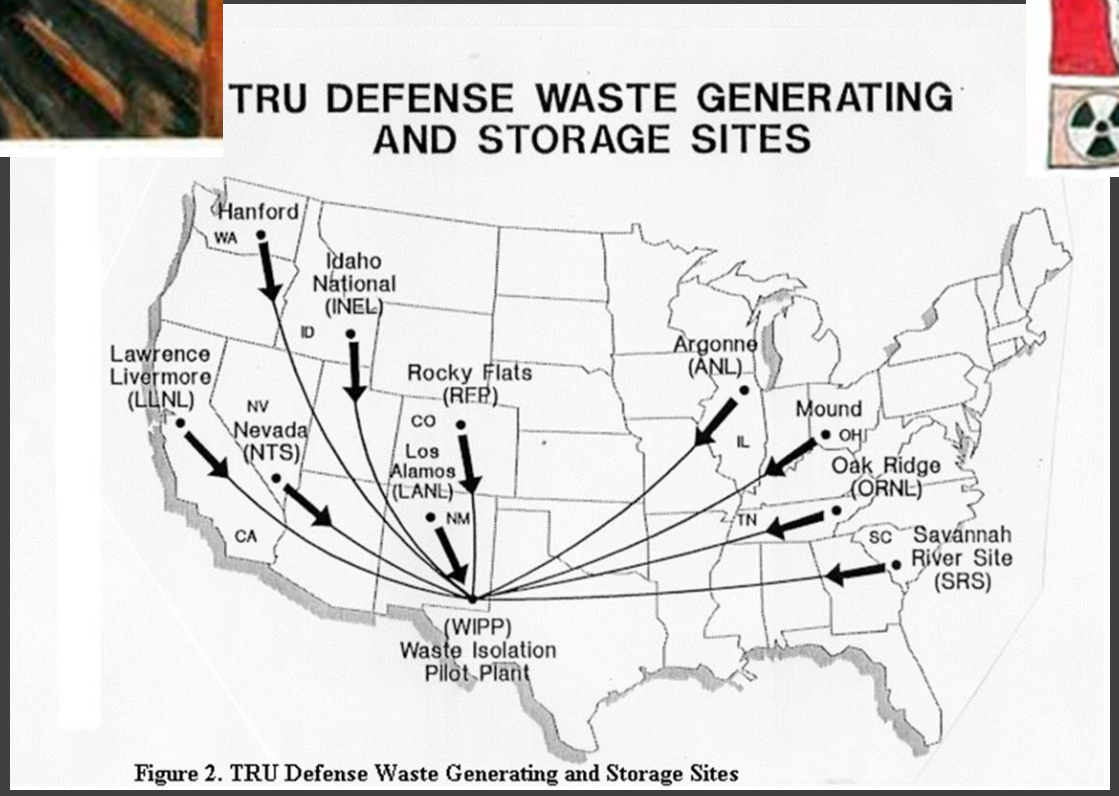
- 1957 - National Academy of Sciences recommends deep salt beds for disposal of radioactive wastes
- 1974 - Following years of siting studies, Atomic Energy Commission chooses ancient salt bed 26 miles east of Carlsbad, NM for detailed exploratory studies
- 1979 - Congress authorizes WIPP as an R&D facility to demonstrate safe disposal of defense wastes not regulated by NRC
- 1981 - First exploratory shaft drilled and first lawsuit filed (by then NM AG Jeff Bingaman)
- 1985 - EPA establishes disposal regulations for transuranic wastes; DOE and NM agree to compliance terms
- 1988 to 1991 - Gov. Andrus blocks shipments, DOE declares Construction Complete and tries to administratively withdraw land, NM sues
- 1992 - Congress enacts Land Withdrawal Act
- 1999 - First shipment arrives following 10 years of regulatory process, lawsuits, and politics
- 2019 - Over 12,000 safe shipments and 175,000 containers emplaced

Opposition to WIPP

1980's
Santa Fe
New Mexico

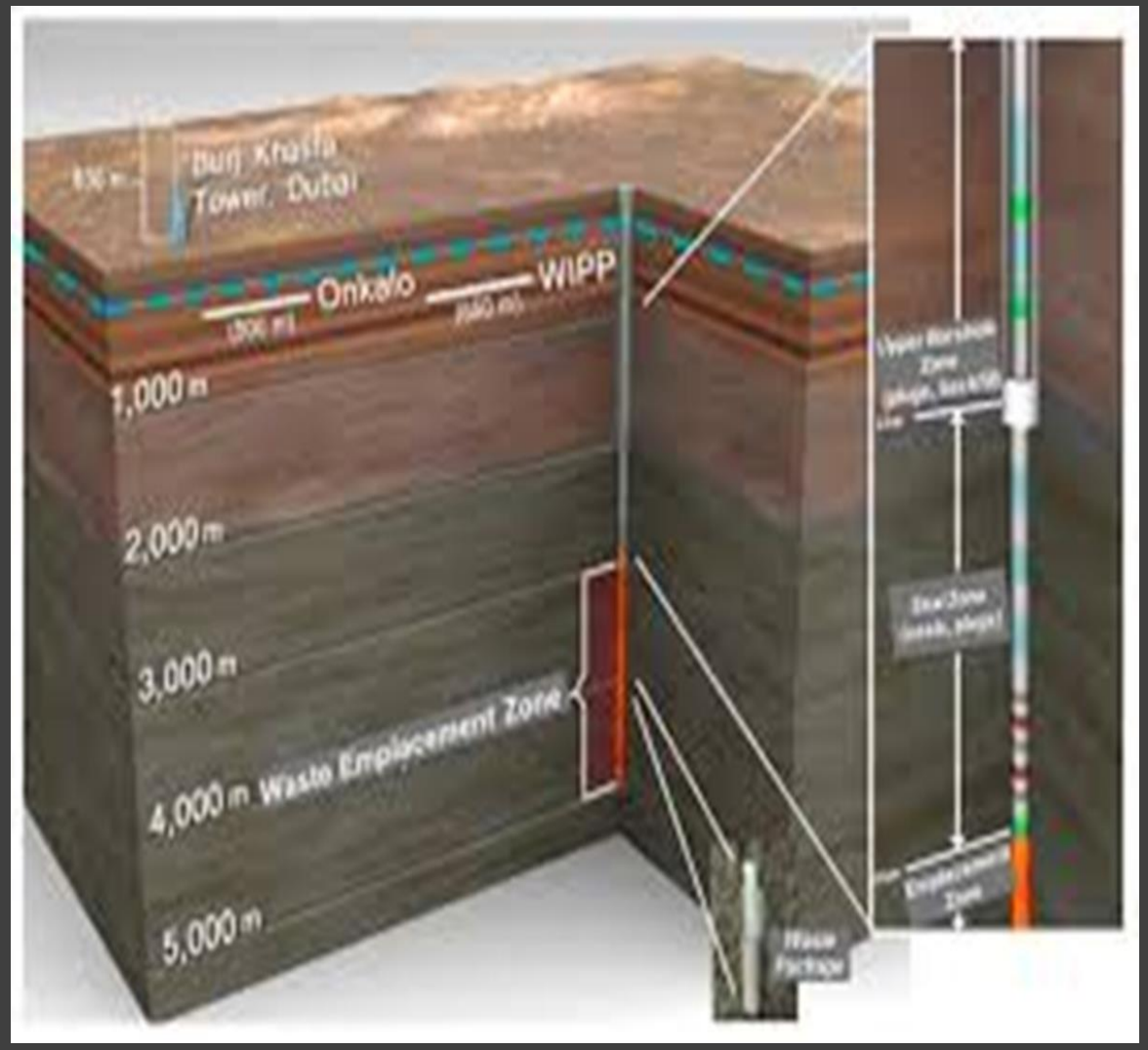


Science and Society in our Republic

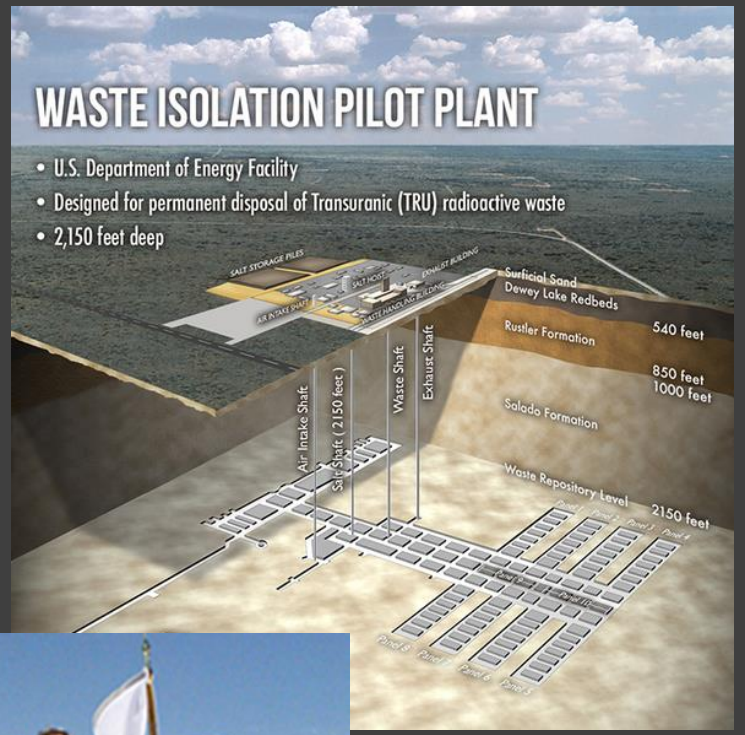


Technical, Regulatory and Legal Frontiers

- The Science
- Regulatory Frontiers: AEC Authorities; Defense ; Mixed Wastes; Transportation; Land Withdrawal Act; Air Emissions; RCRA; NEPA; Emergency Preparedness and Response; OSHA/Mine Safety; DOE Regs; …..
- Lawsuits, law-making , appeals, demonstrations



March 1999!!



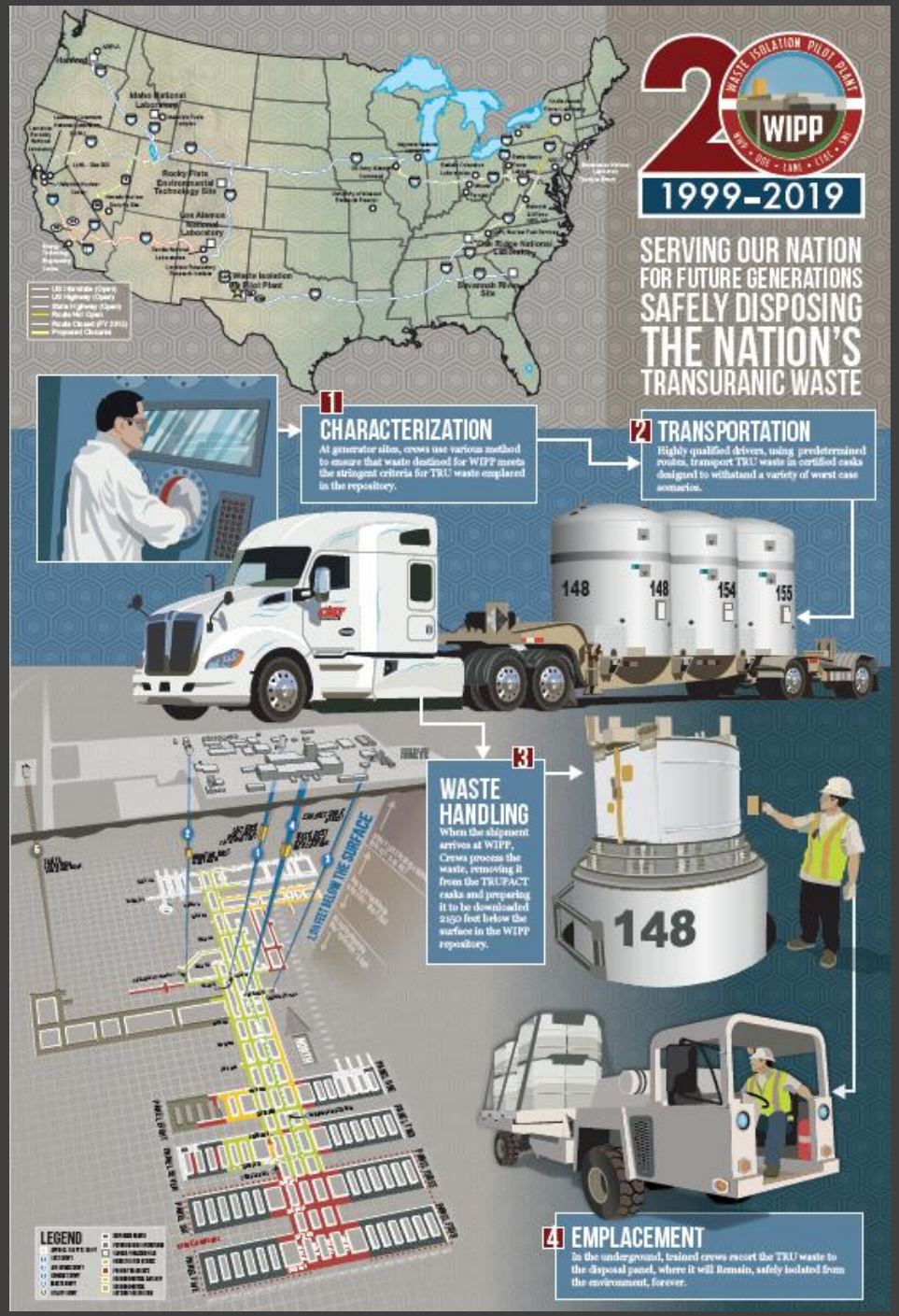
Left to right:

- Sen. Pete Domenici
- Sec'y Bill Richardson (previously Congressman opposing WIPP)
- DOE Hired Hand
- Representative Joe Skeen
- Senator Jeff Bingaman (previously NM AG filing Lawsuit against WIPP)
- Carlsbad Mayor Gary Perkoski
- Missing -- about 5,000 people

https://vimeo.com/329377122

Perseverance and Coordination

- 1957 - 1999 --- 42 years from concept to reality
- Learn-as-you-go siting, performance assessment, “licensing”, political, public involvement, law-making and management processes
- Leadership changes (different Administrations; multiple AEC, ERDA, & DOE heads; local leadership changes)
- Multiple players (DOE HQ/ALB/Carlsbad, EPA, DOJ, NM Gov/AG/Environmental, prime contractors, Sandia, community, activists, DOT, Law enforcement, OSHA/Mine Safety, etc., etc)
- Operational setbacks and learnings
- Opportunities for “communication” failures
- BUT -- despite years of cynicism and doubt, it happened and it was important



Significance

- Importance to Cleanup to Date
  - Over 12,000 safe shipments and 175,000 containers emplaced
  - Uniquely capable
  - Enabled cleanup completion at Rocky Flats
  - Idaho, Savannah River, LANL, ……

- Importance for Future
  - Unique disposal capabilities
  - Future possibilities
  - Proof we can design, regulate and operate a deep geologic disposal system for isolating long-lived, nuclear wastes …. safely, productively, efficiently

Lessons Learned

- It isn't easy but it can happen -- even with our system of government
- Good science -- essential, but not sufficient
- The Fear Factor, our Regulatory System and Politics
- Under a microscope -- incidents are very costly
- Enduring local community activism and support critical
- Institutional Commitment -- good people willing to persevere, coordinate, partner, and work with changing layers of management for the common good
- Looking Ahead -- Protect our Asset