

Presentation on *The Transport of Nuclear Weapons' Waste* to the
Radioactive & Hazardous Materials Interim Committee, New Mexico
State Legislature
Aug. 21, 2023, Los Alamos, NM

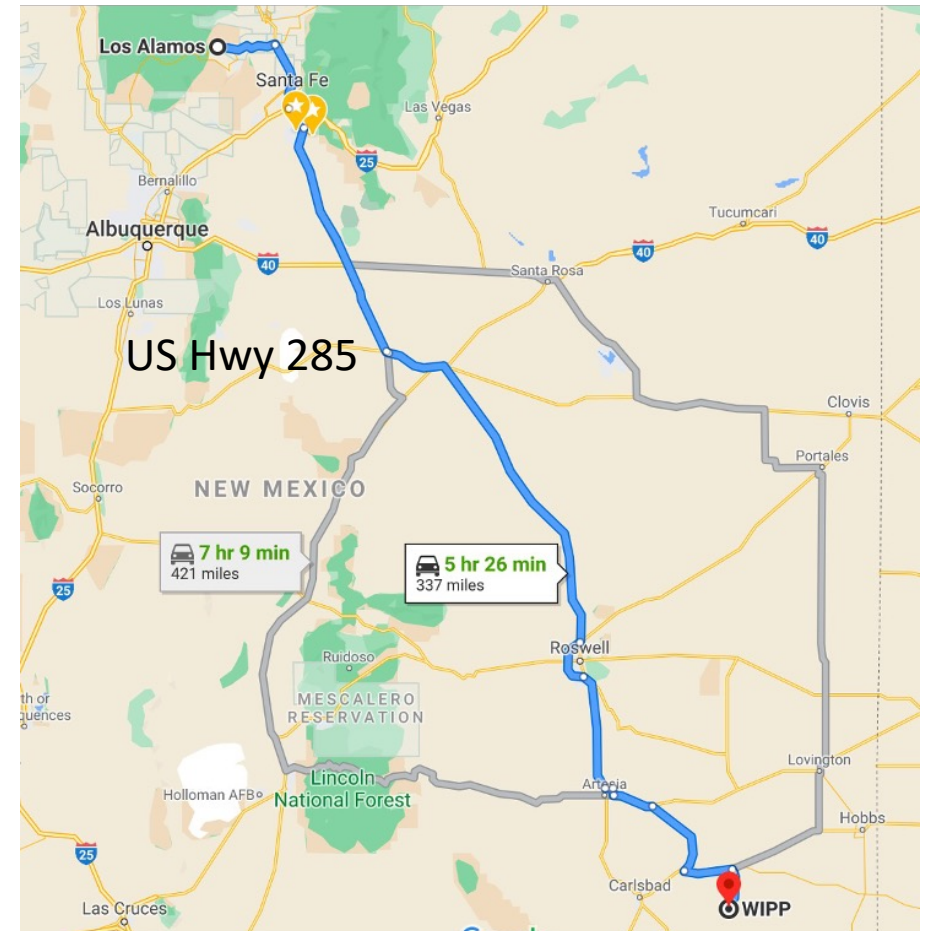
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Monitoring NGOs:

Southwest Research & Information Center www.sric.org

Concerned Citizens for Nuclear Safety www.nuclearactive.org

Nuclear Watch New Mexico www.nukewatch.org

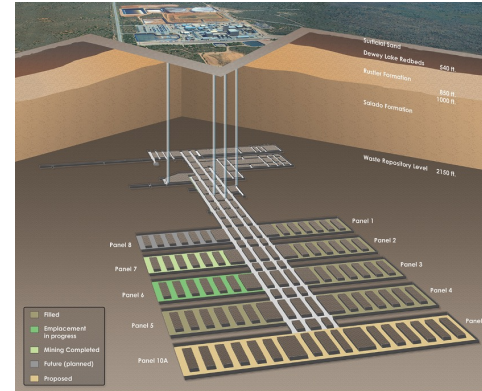


New Mexico's original permit with DOE set limits

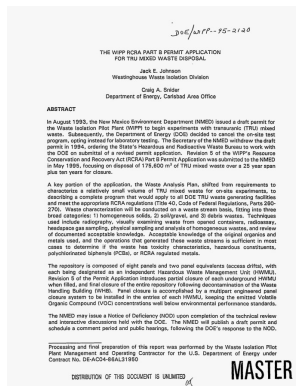
1. WIPP is a "pilot" plant



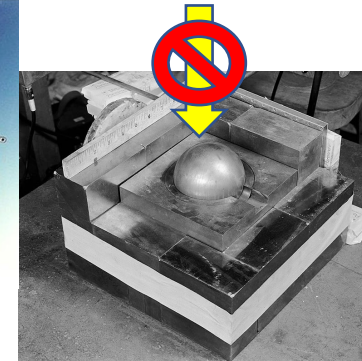
2. WIPP waste limited to 6.2 million ft³



3. WIPP's operation time limited



4. Form of waste is limited



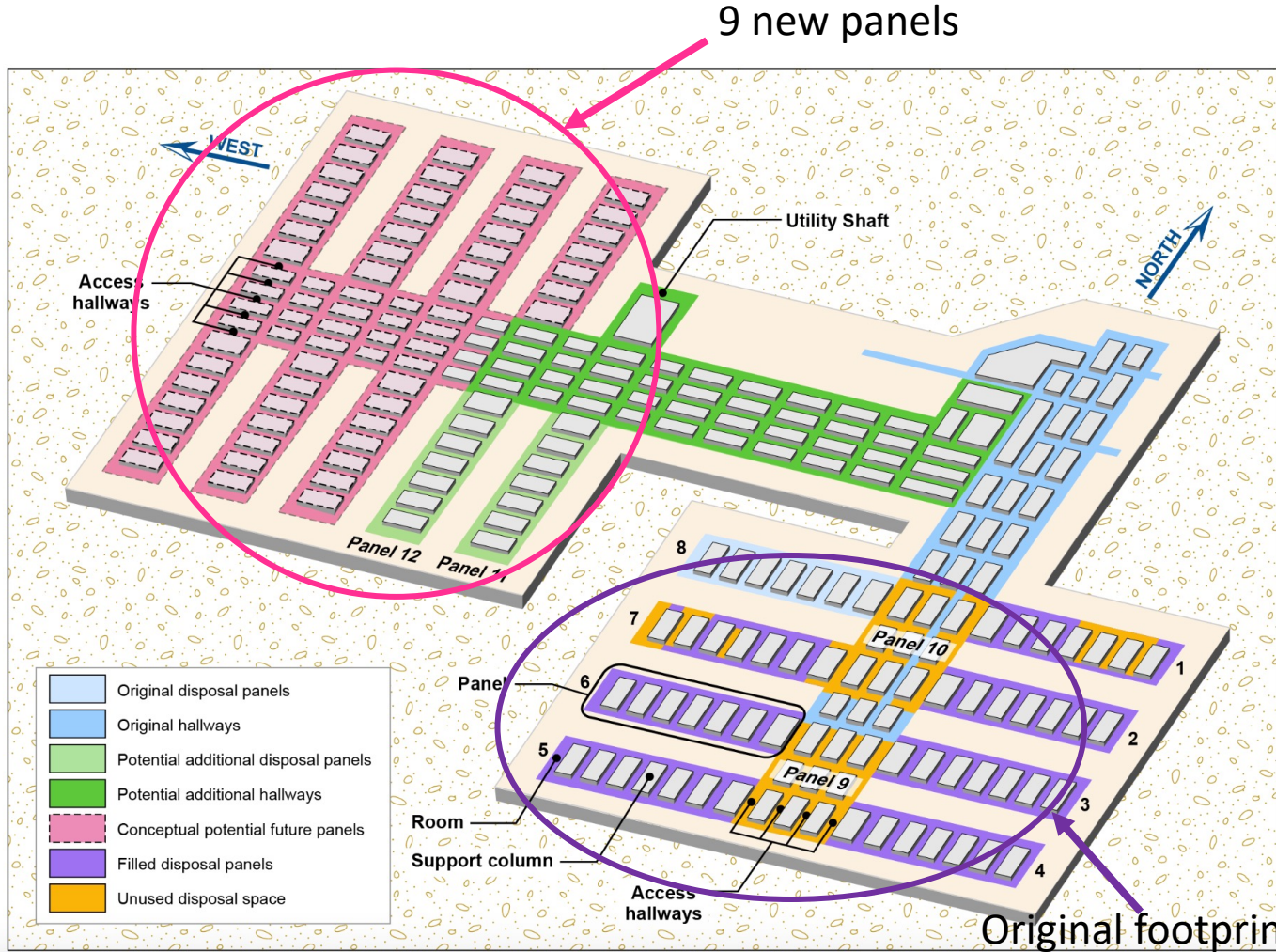
DOE plans to ignore original limits

This is WIPP expansion:

1. Adding 9 new panels to WIPP's underground footprint.

“Current Layout of WIPP Facility and a Draft Conceptual Design of Additional Potential Waste Disposal Space”

DOE would not have prepared these blueprints in pink if it didn't intend to use them.



Page 7 GAO-22-105057 Waste Isolation Pilot Plant Figure 1: Current Layout of WIPP and a Draft Conceptual Design of Additional Potential Waste Disposal Space”

2. Adding a new form of waste and a huge, new waste stream.

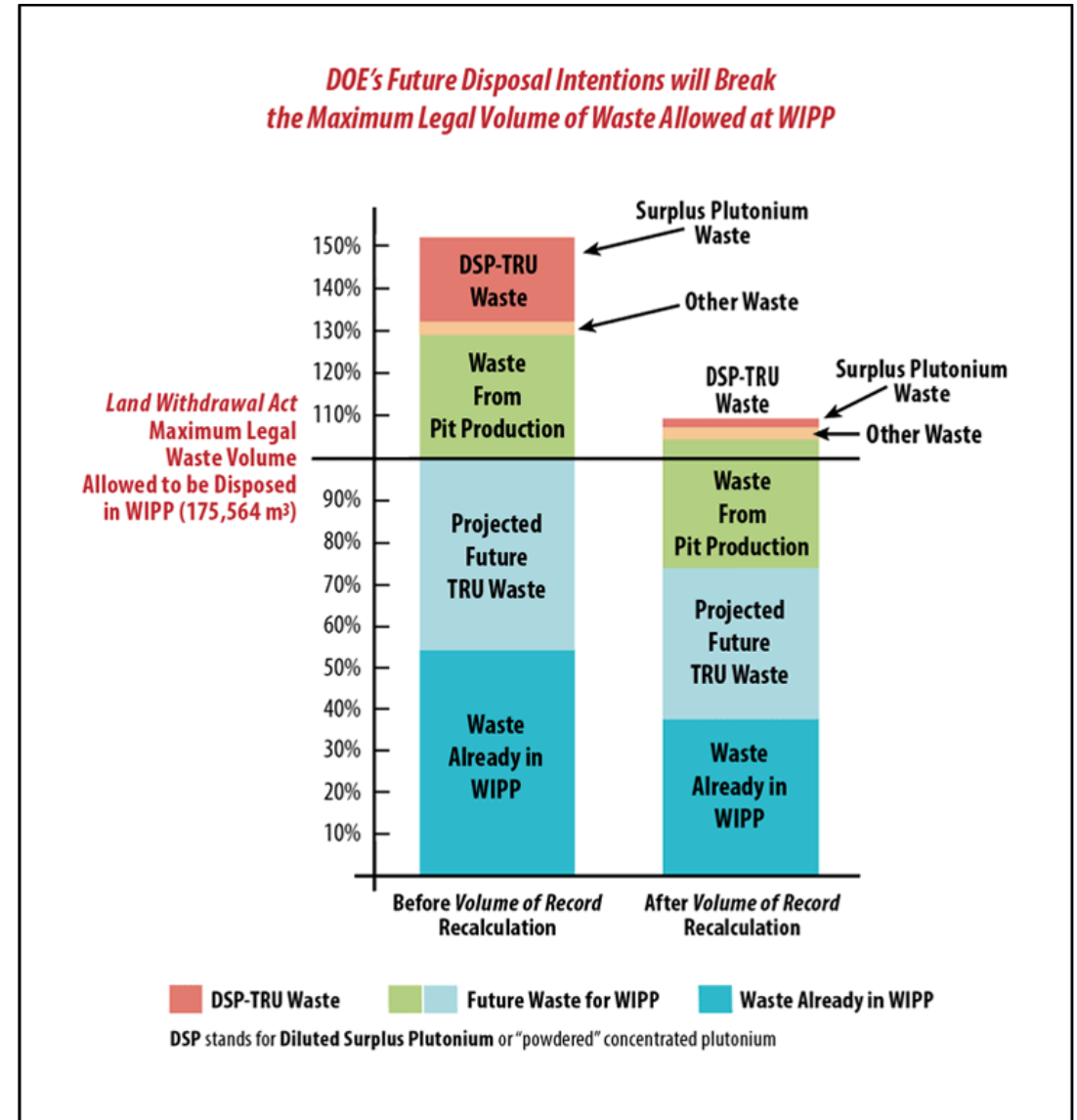


Surplus Plutonium
(finely powdered & more dangerous)

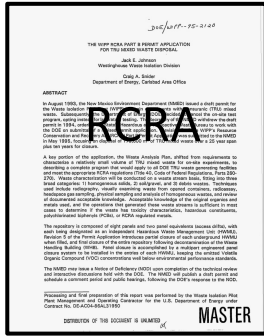


80 new plutonium bomb pits per year for decades

3. Overfills WIPP's allowable limits.



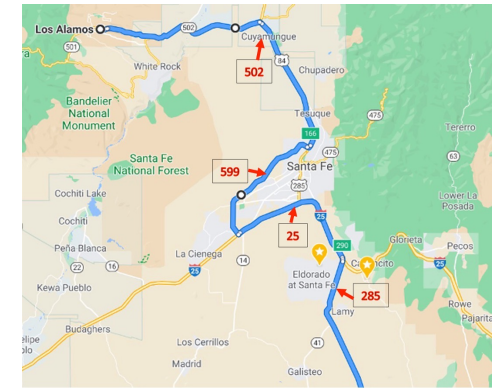
4. From 2024 to NO end date



5. Increases # of shipments in trucks through the Office of Secure Transport (OST)



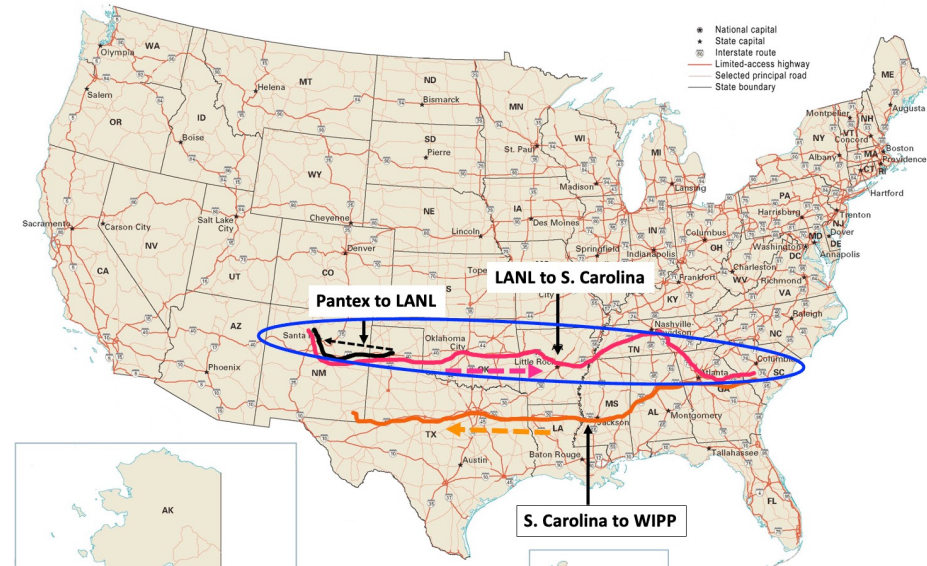
Passes many communities twice



6. Expands distance of transport (3,300 miles for each of 25,000 new shipments for just one of the new programs)



“If your community is on the route, you have something to worry about.”



Blue shows transport not in TRUPACTs but OST trucks, when plutonium is most easily made into bombs

Complex projects need more than one perspective:

SCIENCE

MANAGEMENT

COMMON SENSE

SCIENCE tells us:

- Plutonium-239, with a 24,000 year half-life, takes almost 500,000 years to completely decay.
- WIPP is only certified for 10,000 years. 50 more consecutive WIPPs?
- It turns into uranium-235, also radioactive, with a half-life of 700 million years.
- Plutonium radiates alpha particles, which can't be detected with a Geiger counter. Few emergency crews have alpha counters. Santa Fe County still has none.
- Powdered plutonium inhaled without knowing, stays in lungs, less than a millionth of an ounce causes cancer 100% of the time.
(Nobel Prize-winning Physicians for the Prevention of Nuclear War)
- Land contaminated with particulate plutonium can't be cleaned; buildings must be abandoned. *(Sandia Labs)*



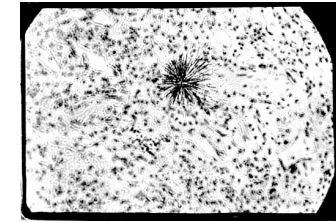
PLUTONIUM-239

Half-life 24, 000 years



Uranium-235

Half-life 700 million years



Plutonium particle irradiating cells in lung tissue



MANAGEMENT can ask the right questions:

- Why should a form of plutonium that is easily made into bombs, crossing the country for more than half its journey?
- Which hospitals have the chemical agent needed for plutonium decontamination if inhaled?
- Can first responders get to an accident site before people have inhaled plutonium particles?
- What makes alpha particles more dangerous than other types of radiation?
- Why has the public not been told that inhaling plutonium is a cancer diagnosis?
- How many alpha counters are available and where are they?
- Have the safety problems with the Office of Secure Transportation (transporting surplus plutonium) been corrected and will they stay corrected for several decades? <https://www.latimes.com/nation/la-na-nuclear-couriers-20170310-story.html>
- When will the public be told that property contaminated by particulate plutonium would have to be abandoned?
(Sandia Labs)

MANAGEMENT can protect New Mexicans if it:

ASKS THE RIGHT QUESTIONS

&

USES THE PERMIT PROCESS

USE THE PERMIT PROCESS

What does this mean?



New Mexico issues WIPP permits



DOE applies to New Mexico Environment Department for permission in permits

- The Governor, through the NMED, approves or denies DOE requests to expand WIPP's mission.
- If expansion puts New Mexicans at risk, New Mexico can say 'NO.'
- Concerned NGOs are **Using the Permit Process** to negotiate a safer permit.

What the NGOs are negotiating:

- Prioritize legacy waste



- Inventory legacy waste

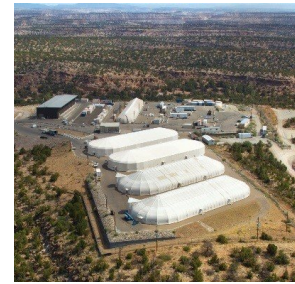


- Find new repositories sites in other states



- No new excavation or no new waste sources

- *Public meetings often*



LANL's legacy waste is a fire danger

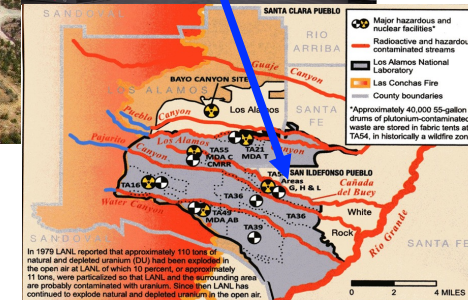
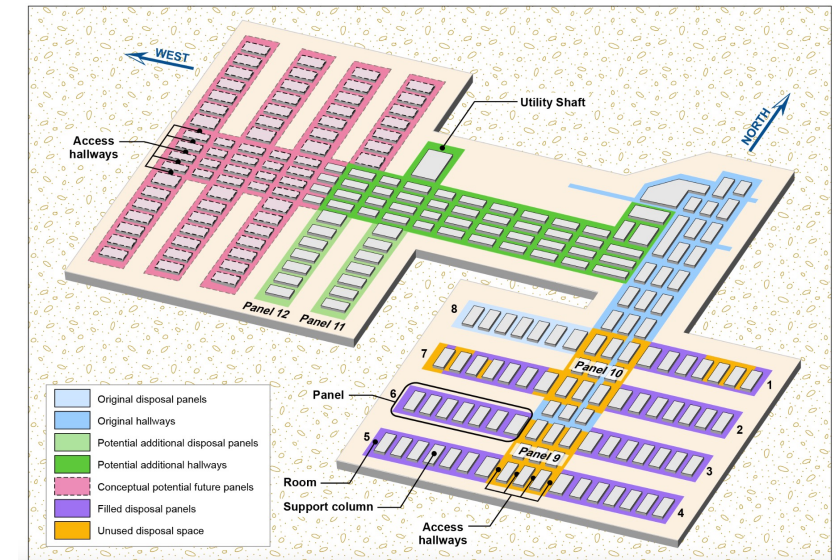


Figure 1: Current Layout of the Waste Isolation Pilot Plant (WIPP) Facility and a Draft Conceptual Design of Additional Potential Waste Disposal Space



Making this permit renewal safer delays some the expansion.
It doesn't stop it.
DOE fully intends to expand.

We can use this time to return WIPP to the pilot project it always was.

This committee's credibility makes it an ideal communicator of this issue.

We ask members to:

- Make this issue a conversation with other leaders, legislators, the Governor.
- Encourage NMED to enforce the permit process more assertively and to alert the committee about DOE's compliance with the new permit provisions.
- Sponsor a town hall presentation for your constituents.

COMMON SENSE reframes issues:

Risk is difficult to estimate

Risk & NASA

NASA's estimate of losing a shuttle: 1 in 100,000

After losing Challenger & Columbia: 1 in 66

Ordinary people are put at risk they didn't ask for
and don't even know about.

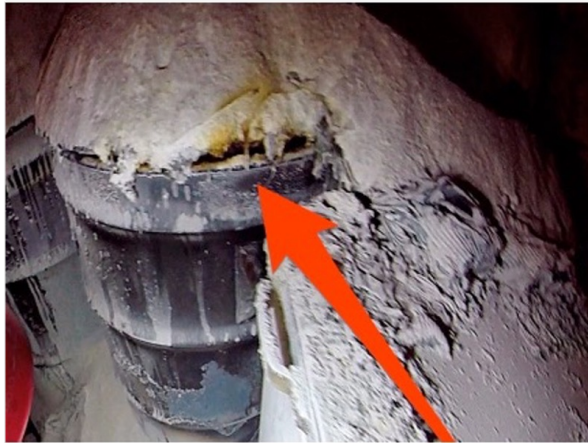
Know statistics:

- Increased volume
- Increased number of shipments
- Increased timeframe
- More dangerous waste
- Troubled transport system



Complexity creates risk with catastrophic consequences.

Risk & DOE: Valentine's Day 2014 explosion



Instead of exploding inside WIPP, it could have happened along the route.

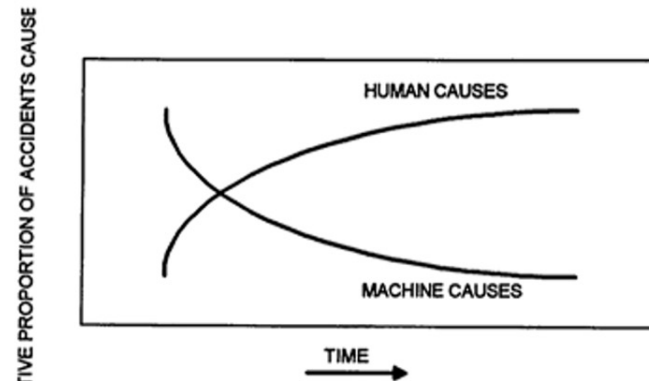
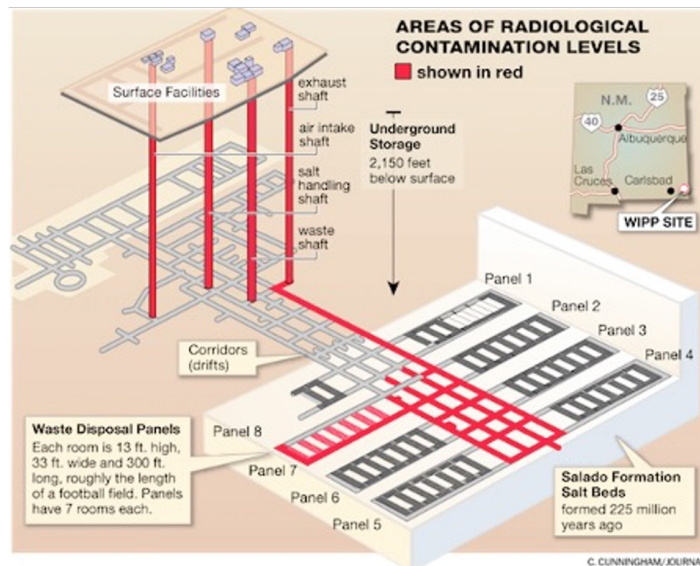
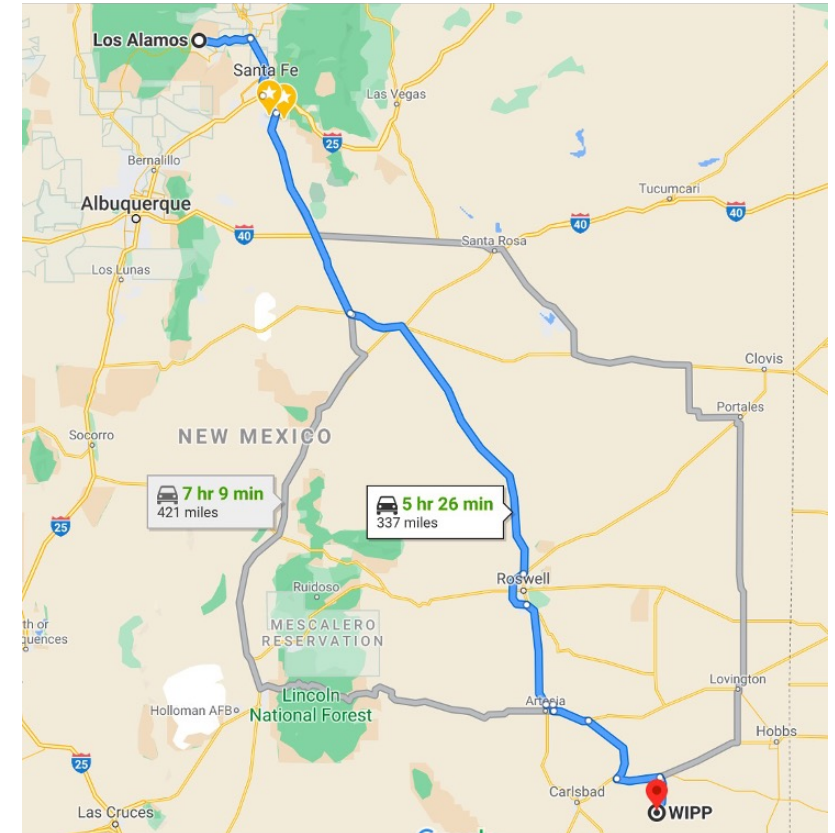


Figure 2. Changes in accident causal factors over time. (International Civil Aviation Organization, 1984)



Caused by human error and greed

Roses are for Remembrance

WIPP's mission was always risky, but it seemed manageable, because it had limits.

Expanding WIPP's mission is much riskier because it abandons those limits.



When a project is so vast, complex, & without limits, it's only a matter of time before human errors occur.

<https://youtu.be/yZDK1dRbNj4>