

Presentation by Santa Fe County Commissioner Anna Hansen

Increased Nuclear Waste Transportation Risks Possibly Coming to 12 States
and
How DOE is Violating New Mexico State Law by Changing the WIPP Mission



The Public Record

GAO Report on DOE planning

DOE Notice of Intent to expand WIPP

National Academies of Sciences
Report to Congress



United States Government Accountability Office
Report to the Committee on Armed
Services, U.S. Senate

October 2019

SURPLUS PLUTONIUM DISPOSITION

NNSA's Long-Term Plutonium Oxide Production Plans Are Uncertain

GAO-20-166



This document is scheduled to be published in the
Federal Register on 12/16/2020 and available online at
[federalregister.gov/d/2020-27674](https://www.federalregister.gov/d/2020-27674), and on [govinfo.gov](https://www.govinfo.gov)

6450-01-P

DEPARTMENT OF ENERGY

National Nuclear Security Administration

Notice of Intent to Prepare an Environmental Impact Statement for the Surplus Plutonium

Disposition Program

AGENCY: National Nuclear Security Administration, Department of Energy.

ACTION: Notice of intent.

SUMMARY: The National Nuclear Security Administration (NNSA), a semi-autonomous agency within the United States (U.S.) Department of Energy (DOE), announces its intent, consistent with the National Environmental Policy Act of 1969 (NEPA), to prepare a Surplus Plutonium Disposition Program (SPDP) Environmental Impact Statement (EIS) to evaluate alternatives for the safe and timely disposition of plutonium surplus to the defense needs of the United States. NNSA will prepare a SPDP EIS to evaluate the dilute and dispose alternative, also known as "plutonium downblending," and any other identified reasonable alternatives for the disposition of surplus plutonium. The dilute and dispose approach would require new, modified, or existing capabilities at the Savannah River Site (SRS), Los Alamos National Laboratory (LANL), Pantex Plant (Pantex), and the Waste Isolation Pilot Plant (WIPP). The purpose of this Notice is to invite public participation in the process and to encourage public involvement on the scope and alternatives that should be considered.

DATES: The public scoping period begins with the publication of this Notice in the *Federal Register* and continues until [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*]. Comments received after this date will be considered to the extent practicable.

In light of recent public health concerns, NNSA will be hosting an internet- and telephone-based, virtual public scoping meeting in place of an in-person meeting. The date of the meeting will be provided in a future notice posted on the following website: <https://www.energy.gov/nnsa/nnsa->

Review of the Department of Energy's Plans for Disposal of Surplus Plutonium in the Waste Isolation Pilot Plant

ADVANCE COPY
NOT FOR PUBLIC RELEASE BEFORE
Thursday, April 30, 2020
2 p.m. EDT

The National Academies of
SCIENCES • ENGINEERING • MEDICINE

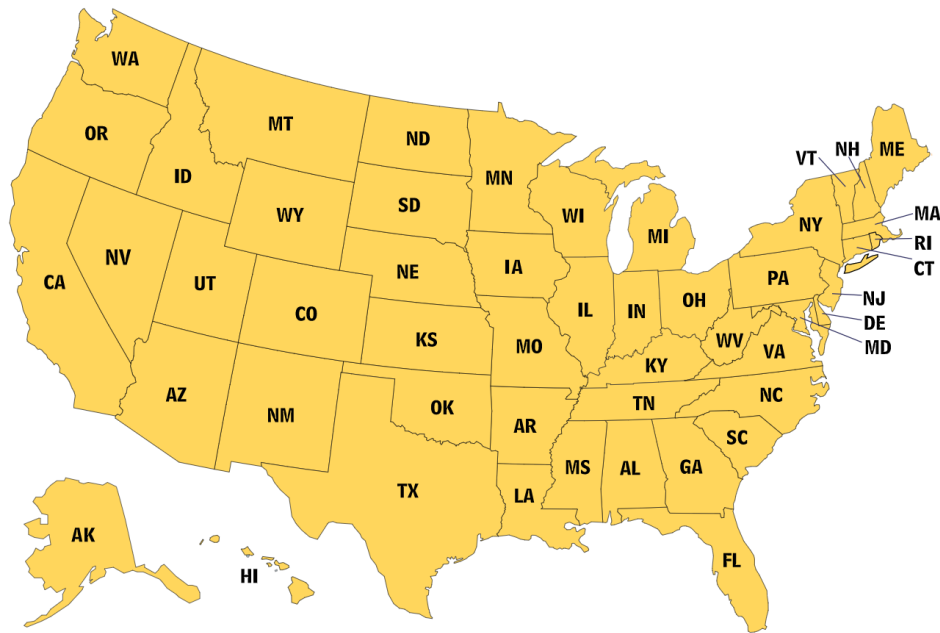
This prepublication version has been provided to the public to facilitate timely access to the committee's findings. Although the substance of the report is final, editorial changes will be made throughout the text, and citations will be checked prior to publication.

THE NATIONAL ACADEMIES PRESS
Washington, DC
www.nap.edu

These limits are encoded into legally binding permits, laws, agreements, and Acts

When DOE decided to build WIPP in NM, the state wisely put in place these legally binding limits to avoid federal overreach:

- **Public Law 96-164**
- **Consultation and Cooperation Agreement**
- **The WIPP Land Withdrawal Act**
- **Federal Resource Conservation and Recovery Act (RCRA)**



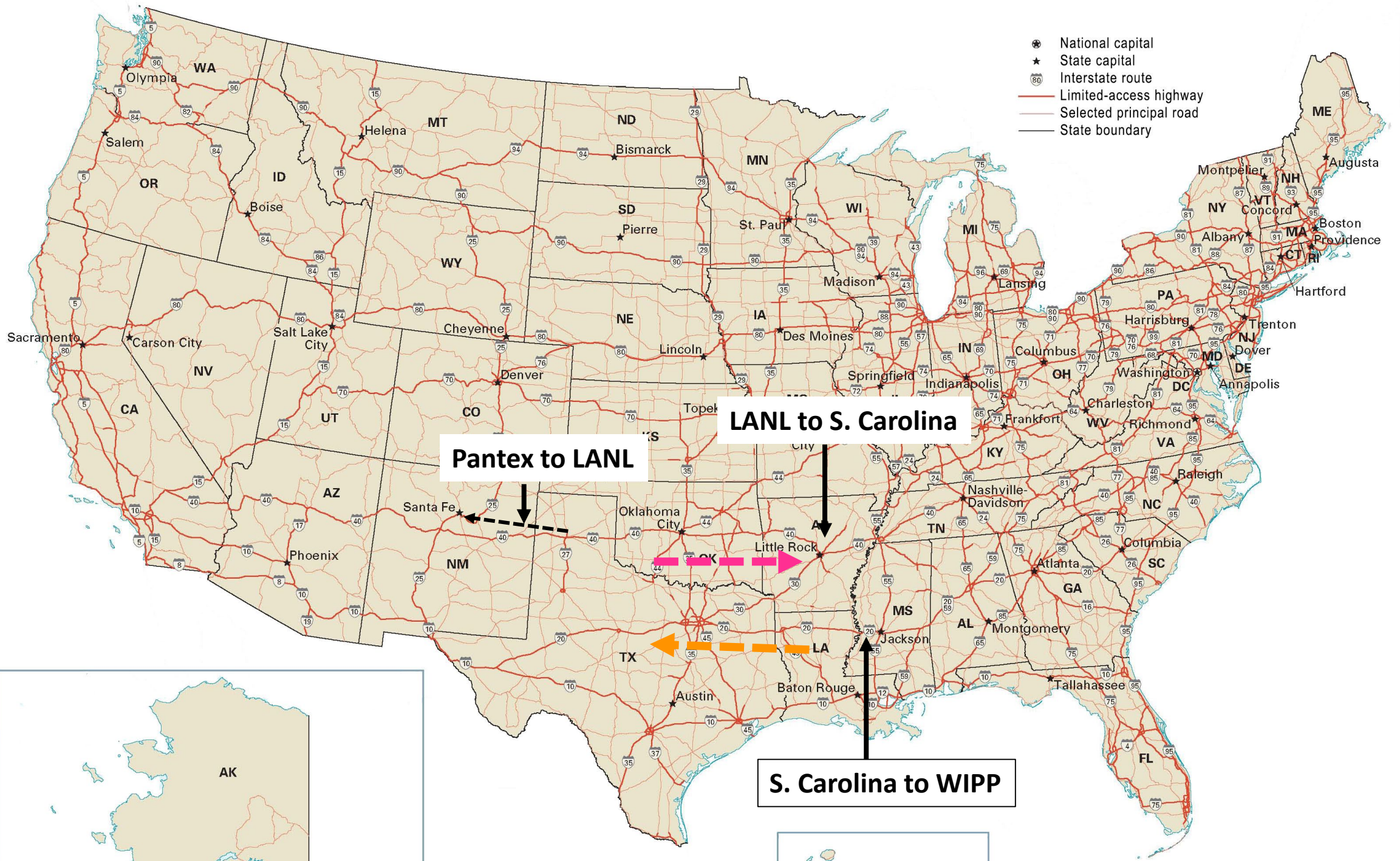
Concern # 1:

Transportation of Weapons Grade Plutonium:

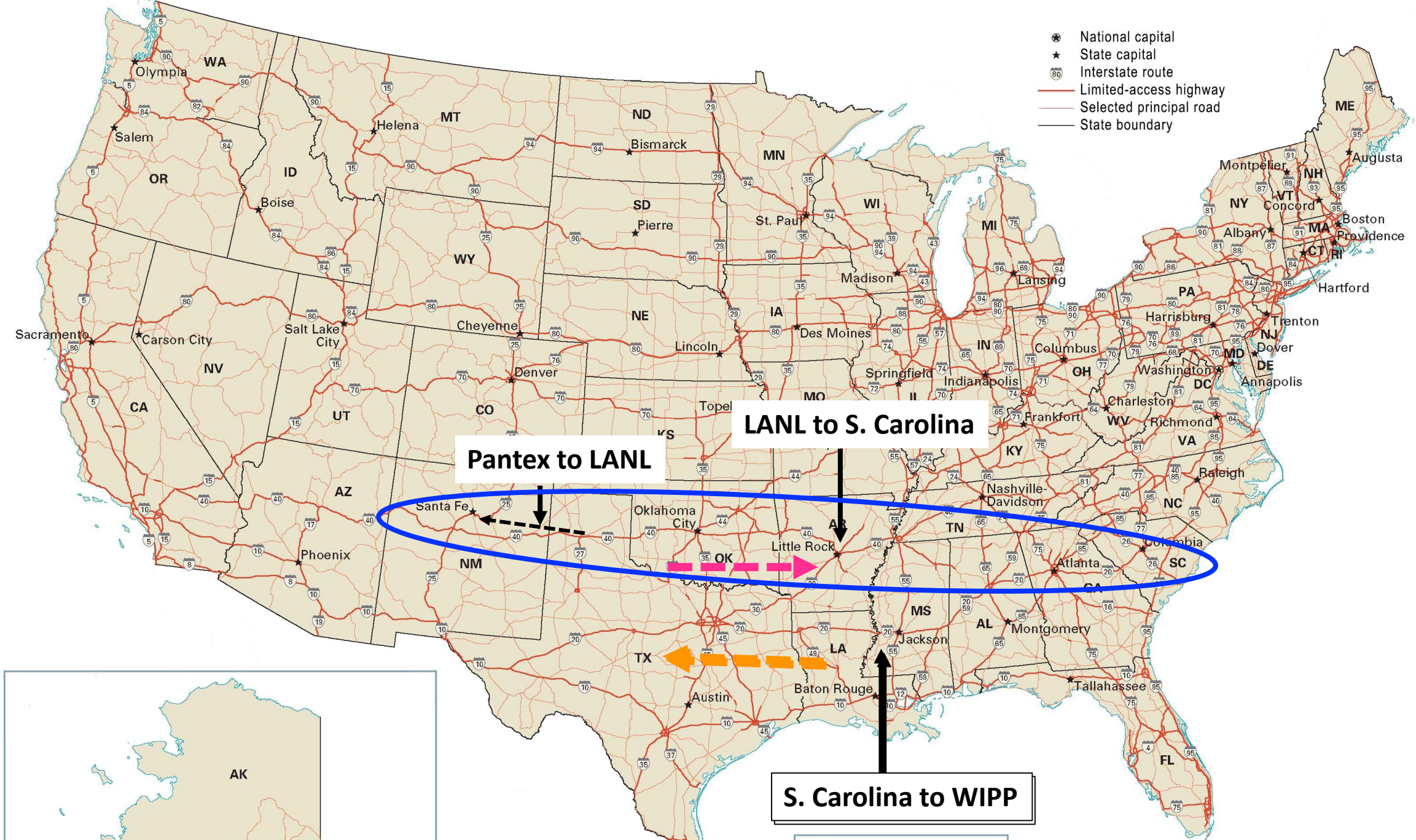
The Distance = 3,300 mile road trip



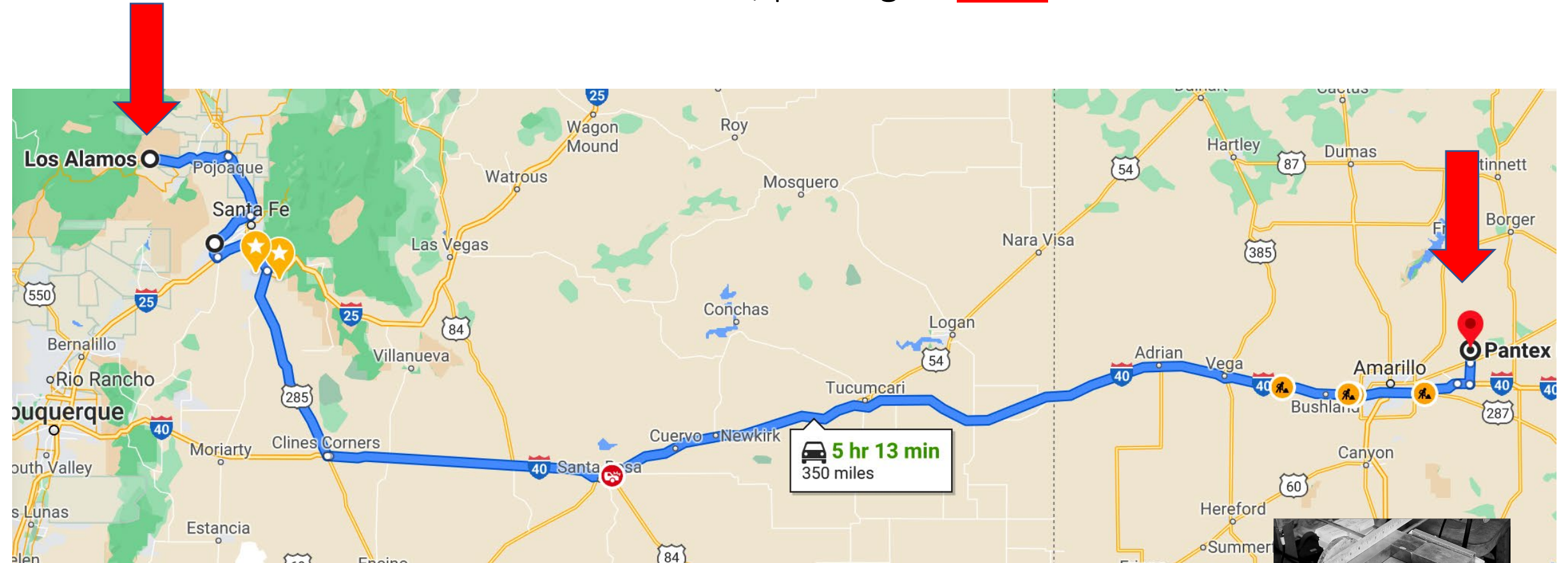




- ⊙ National capital
- ★ State capital
- Ⓜ Interstate route
- Limited-access highway
- Selected principal road
- State boundary



Each load of this new type of plutonium waste will travel from Pantex to Los Alamos and back, passing us twice.



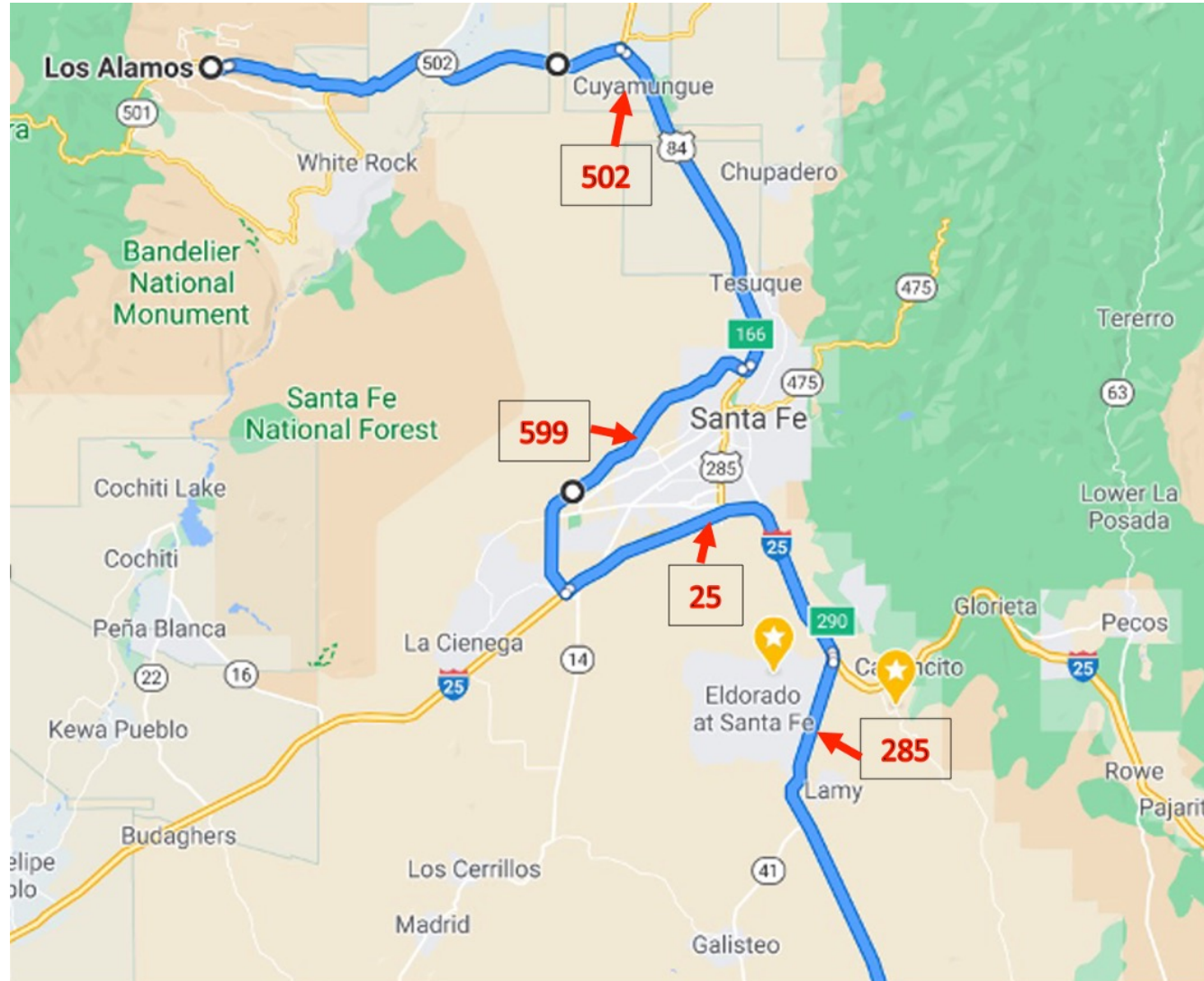
What happens in Los Alamos?
It leaves Pantex as a solid, concentrated pit, or nuclear trigger.



At LANL it is transformed into a powdered oxide, or fine-grained, particulate form of plutonium, and returns along the same route.



Powdered oxide



Now it is not only a different type of plutonium waste but the most dangerous form of plutonium, if released.

Concern # 2: Type of transport vehicles

Office of Secure Transportation semi tractor trailer trucks;
somewhat reinforced and accompanied by armed guards.

Los Angeles Times

“This troubled, covert agency”

- High driver turnover
- Old trucks
- Poor worker morale

--and would struggle with an increased workload.

“If you are in one of the communities along the route, you have something to worry about,” said one high-level Energy Department official, who spoke on condition of anonymity.



<https://www.latimes.com/nation/la-na-nuclear-couriers-20170310-story.html>

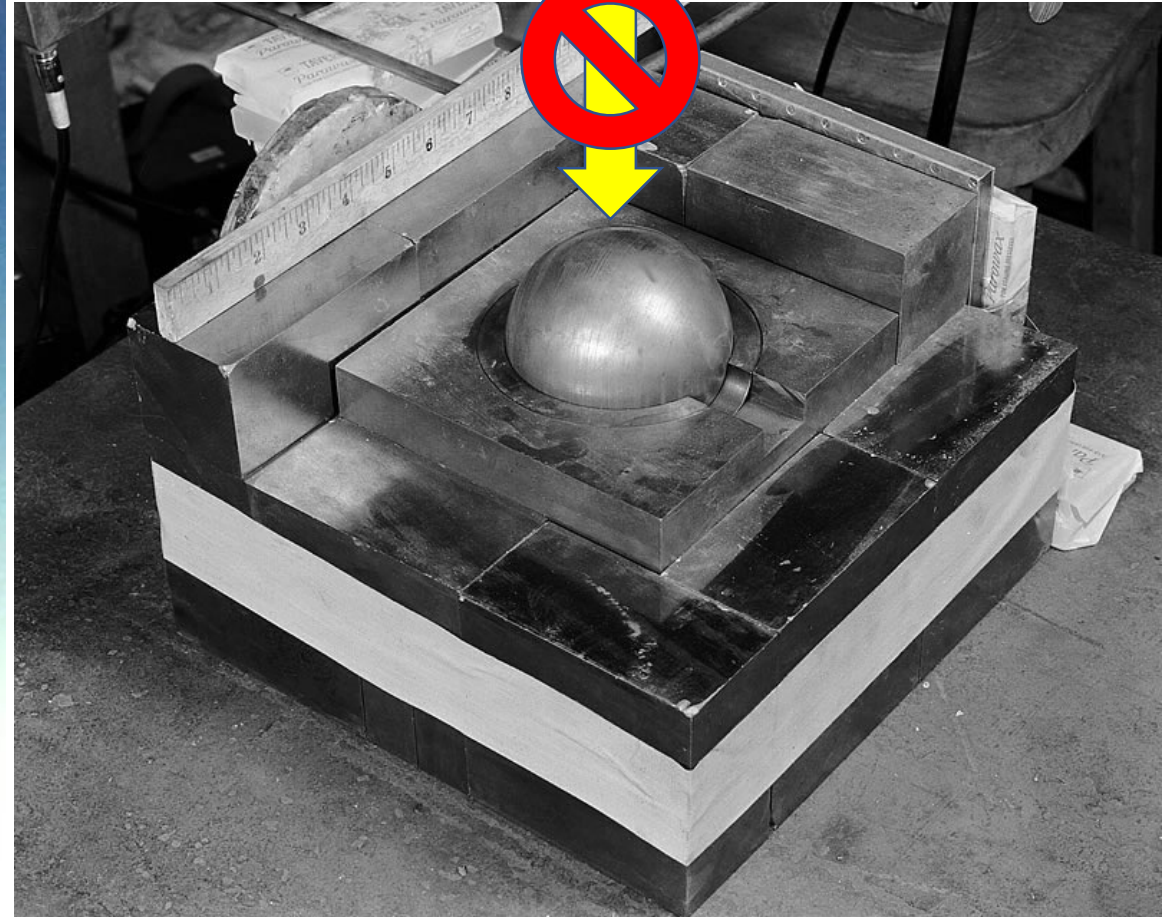
Concern # 3 Change the type and form of waste

Transuranic or TRU waste is man-made and radioactive.

WIPP takes only plutonium (TRU)
contaminated waste.



WIPP can't take concentrated
plutonium in the form of a pit

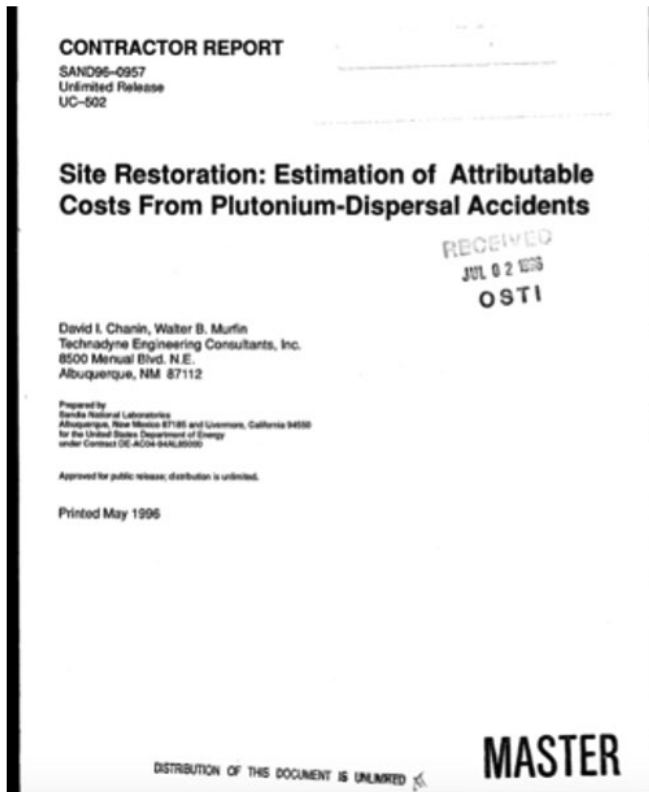


Concern # 4: Property Loss

Sandia National Labs Site Remediation Study:

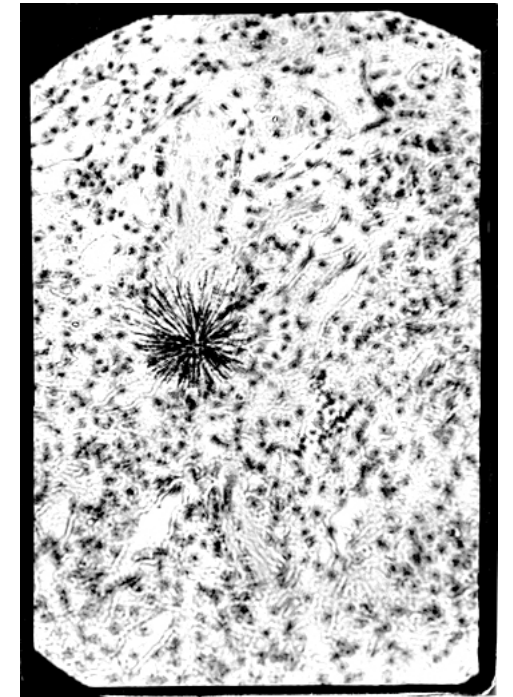
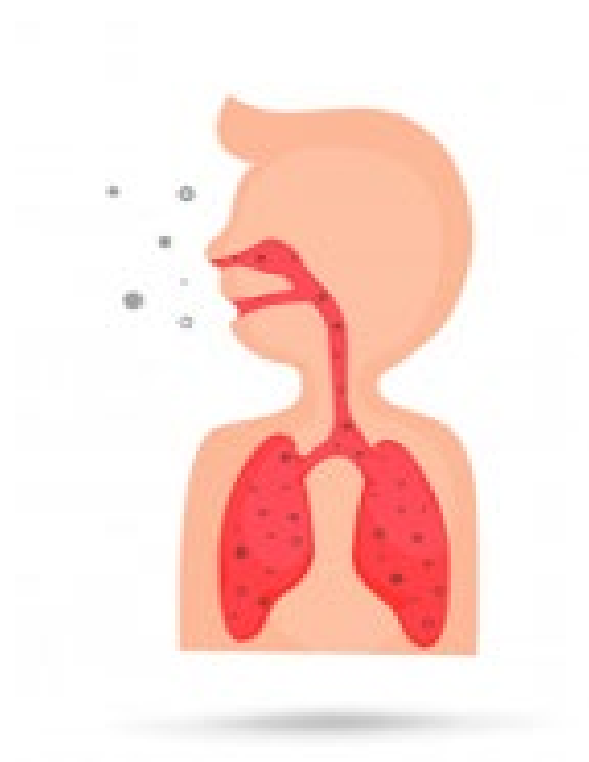
- Particulate plutonium almost impossible to clean up

Sandia National Labs Plutonium-Dispersal Accident Site-Restoration



Albuquerque Journal

Concern # 5: Health & Cancer



The Nobel Peace Prize winning International Physicians for the Prevention of Nuclear War states that less than one millionth of an ounce of particulate plutonium inhaled causes cancer 100% of the time.

Concern # 6: Packaging Concerns

LANL Storage Container Packaging Configuration

inner slip lid
containing a
plutonium oxide



taped inner slip lid wrapped
in a PVC bagout bag
showing bulky
stubs

Hagan
outer container



SAVY 4000
outer container



The PVC bag is used primarily for plutonium contamination control

Stages of PVC Bagout Bag Degradation

- Degradation anticipated under normal conditions due to heat and dose
- Opening containers requires respiratory protection or engineered control (e.g. glovebox or hood).

Pass



Failure



Understand the Role of PVC Bagout Bags in Corrosion



Polyvinylchloride bagout bags are likely causing corrosion

Add them up and know your statistics:

- Increased volume & number of shipments over the rest of the century
- Twice along New Mexico Hwys from LANL to Clines Corners across 12 states totaling 3,300 miles
- Troubled transport system
- More dangerous forms of waste
- Corrosion in packaging
- Potential huge property and health consequences

