Making an Oral Comment:

Livermore PEIS Public Hearing

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Technical Background – Pit Production Impacts at LLNL

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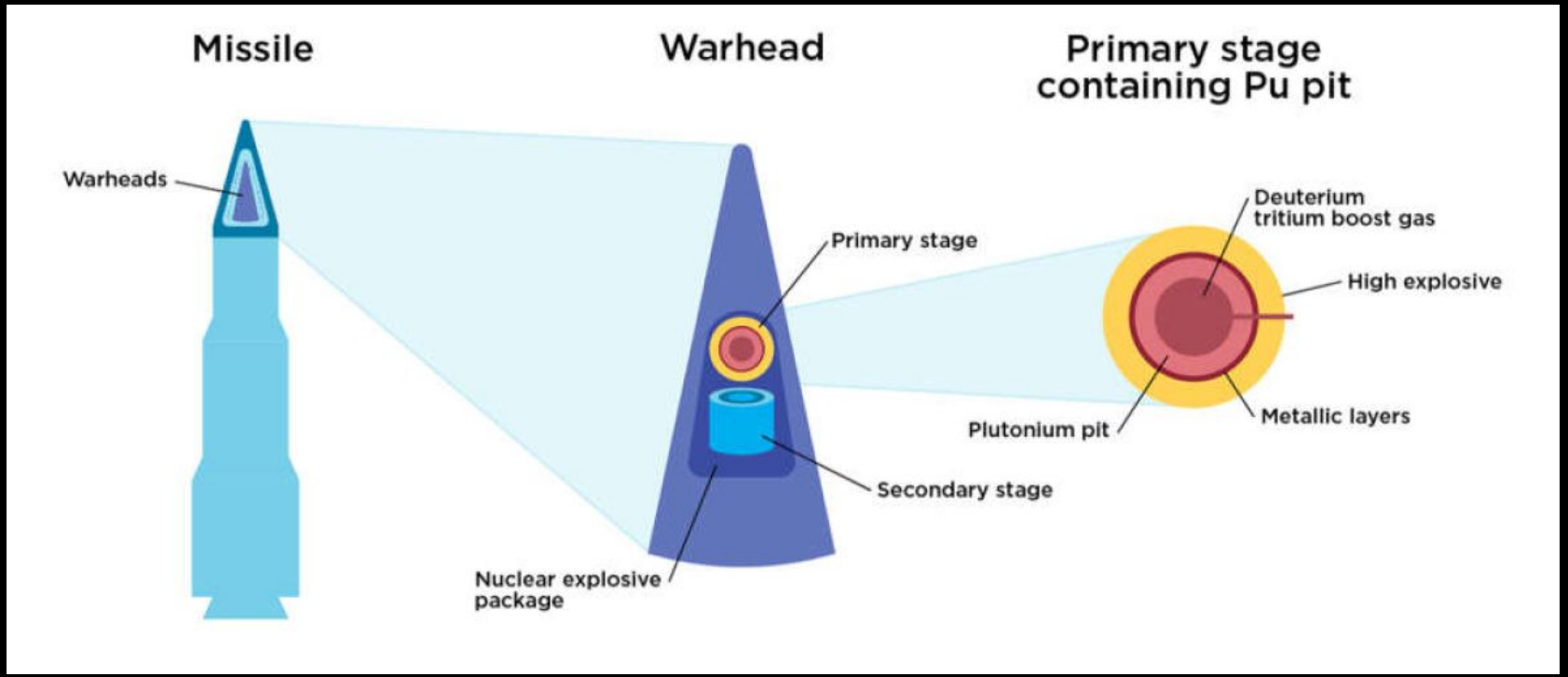
Image: LLNL

Plutonium Pits are the cores of thermonuclear weapons

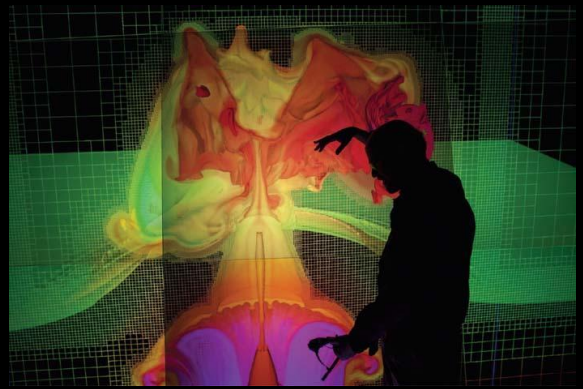


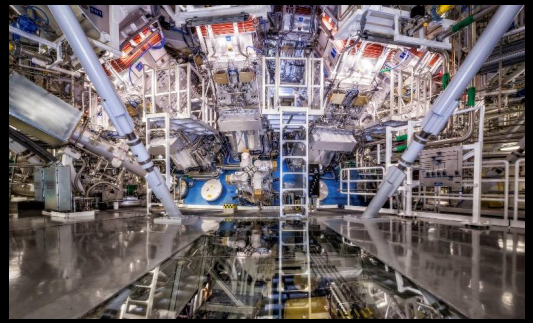
Images: UCS

A paradigm shift within the nuclear complex

A successful tradition of “science-based stockpile stewardship” has progressively given way to modernization and design alteration of warheads

The temptation is to incorporate newly developed capabilities in modeling, design, and manufacturing to enhance not only safety and security, but also performance.





Images: Wikimedia, LLNL

The US is simultaneously modernizing all legs of the triad


Land

Air

Sea




Image Sources: Wikimedia

“Restoring the ability to produce plutonium pits for primaries will guard against the uncertainties of plutonium aging in today’s stockpile and will allow new pit designs to be manufactured, *if necessary for future weapons*.” [emphasis added]

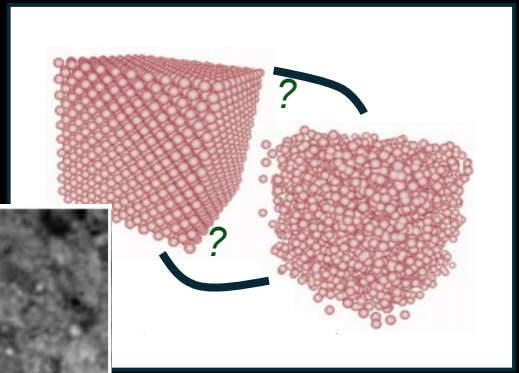
DOE/EIS-0552, 1-7

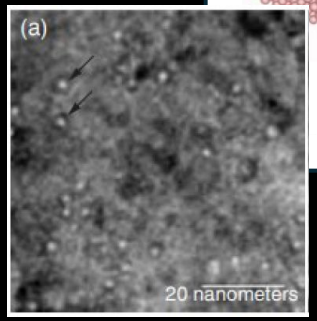
New pits are, in fact, ONLY for *unnecessary* new weapons, not to take care of the stockpile we have.

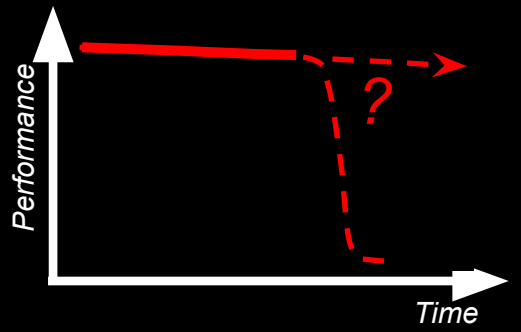
Images: John Kowalski/U.S. Navy, LLNL, Sandia.gov, US Navy

Plutonium Aging as Motivation for New Production?

Does change accumulate smoothly with time or is there run-away degradation?







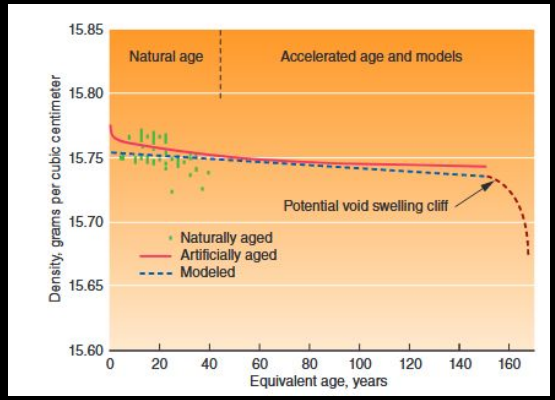
Plutonium aging is often cited as the driving force requiring production of all new pits, but the national labs have shown no evidence that plutonium is the primary life-limiting component in nuclear weapons. UCS analysis supports this conclusion.

Results from LLNL bolster confidence in existing pits

Research Highlights

Plutonium at 150 Years: Going Strong and Aging Gracefully

PLANNING the future needs of the U.S. nuclear weapons stockpile as well as the nuclear weapons complex depends in part on maintaining confidence in the long-term stability of the pit, or core, of plutonium-239 residing inside every weapon. Scientists and engineers who ensure the safety and reliability of the nation's stockpile had long been concerned that the damage accumulated over decades as plutonium-239 self-irradiates could eventually compromise weapon performance.

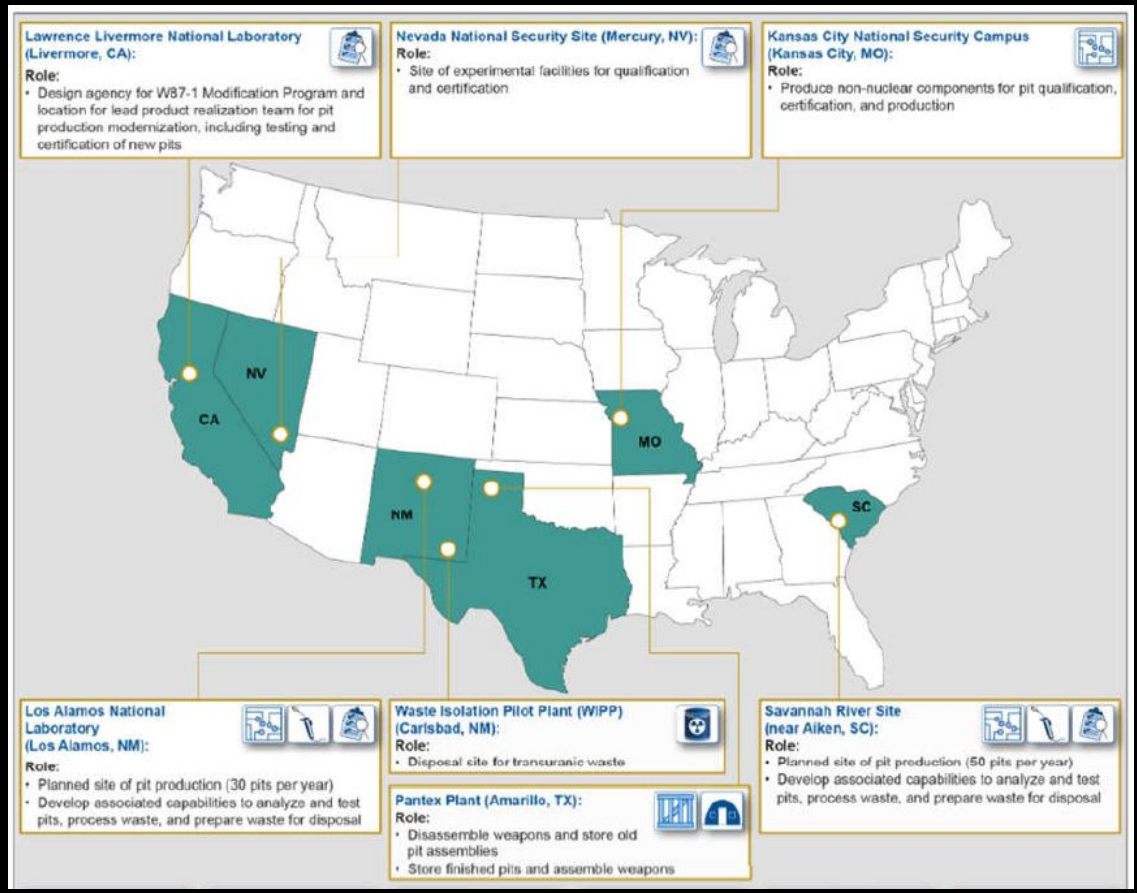


The results unequivocally showed no statistically significant difference in the EOS of the new and old plutonium. "The experiments achieved EOS data with an accuracy never achieved before," says physicist Neil Holmes, chief JASPER scientist. "The DAC and gas-gun experiments produced entirely consistent data. One technique is dynamic, the other static, but the answers were the same."

Images: LLNL Science and Technology Review 2007, 2012; NIF

Why Programmatic and not site-specific?

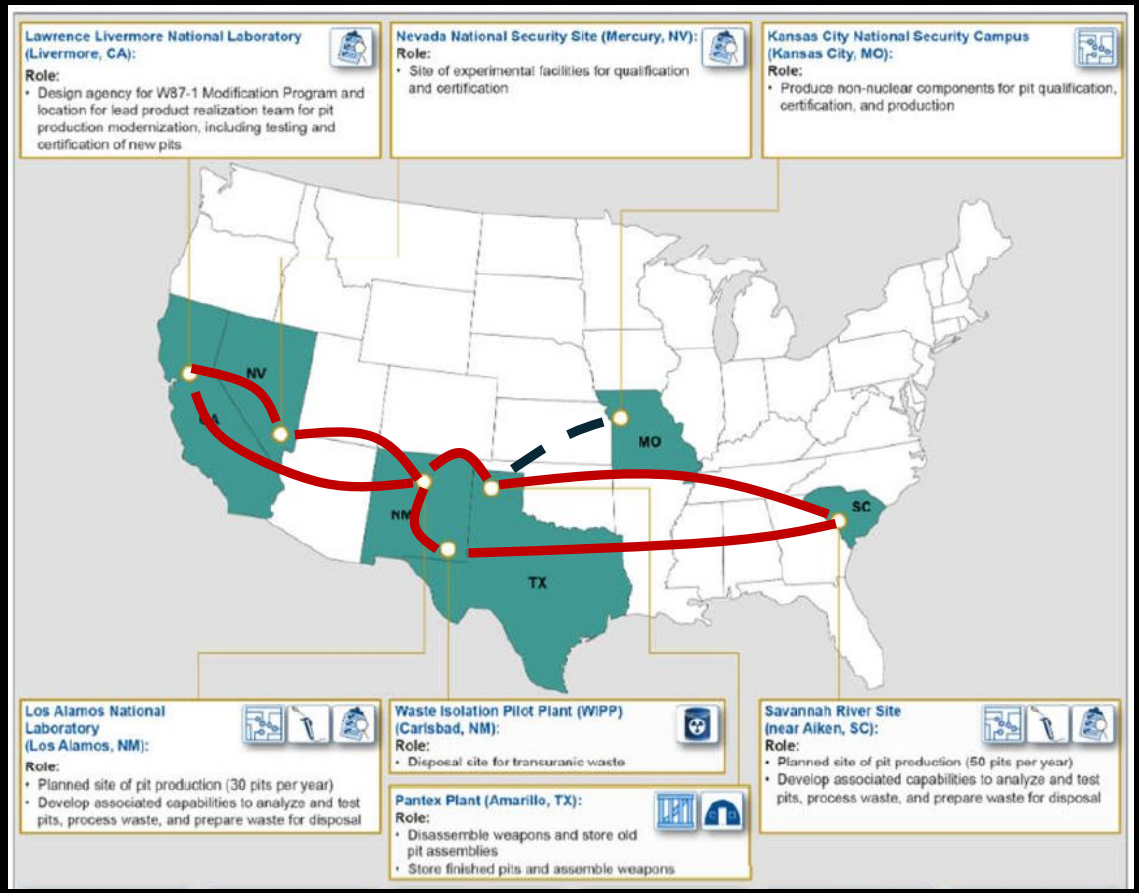
Work is “connected, cumulative, or similar” across multiple sites or facilities



Why Programmatic and not site-specific?

All of these steps require multi-site coordination:

- Material Processing
- Waste Management
- Qualification
- Assembly
- Transportation



Technical Concerns for PEIS Comments

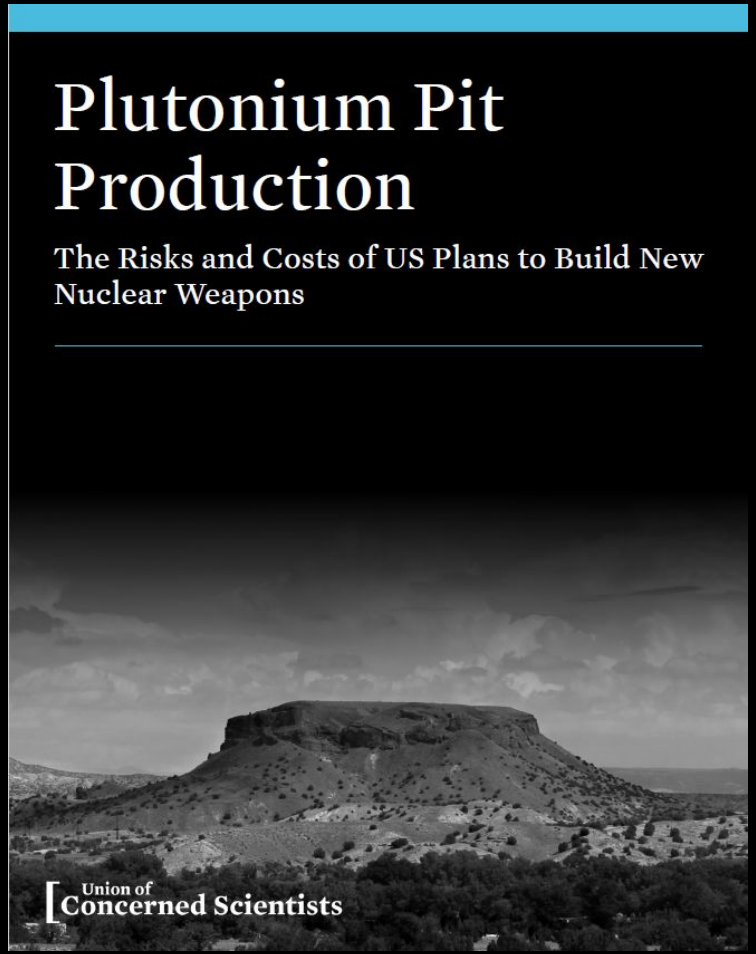
The PEIS should demonstrate the viability of NNSA's long-term plans for waste management and storage, including contingencies.

The PEIS should address the engineering and safety controls being installed at Los Alamos and Savannah River to protect the public and the environment from worst-case accidents and potential release of hazardous material.

Administrative and engineering controls for worker safety and material handling should be explicitly outlined according to best-practices

Transportation risks, routes, and frequency of shipments should be transparently communicated for affected communities

Measures to address and remediate existing legacy waste at each site should be addressed with proposed timelines and methods.



Comprehensive UCS Report on Plutonium Pit Production

www.ucs.org/resources/plutonium-pit-production

More information and tools also at pitpeis.com

How did We Get Here? Tri-Valley CAREs' role in pit production lawsuit:

Overview of our successful NEPA lawsuit

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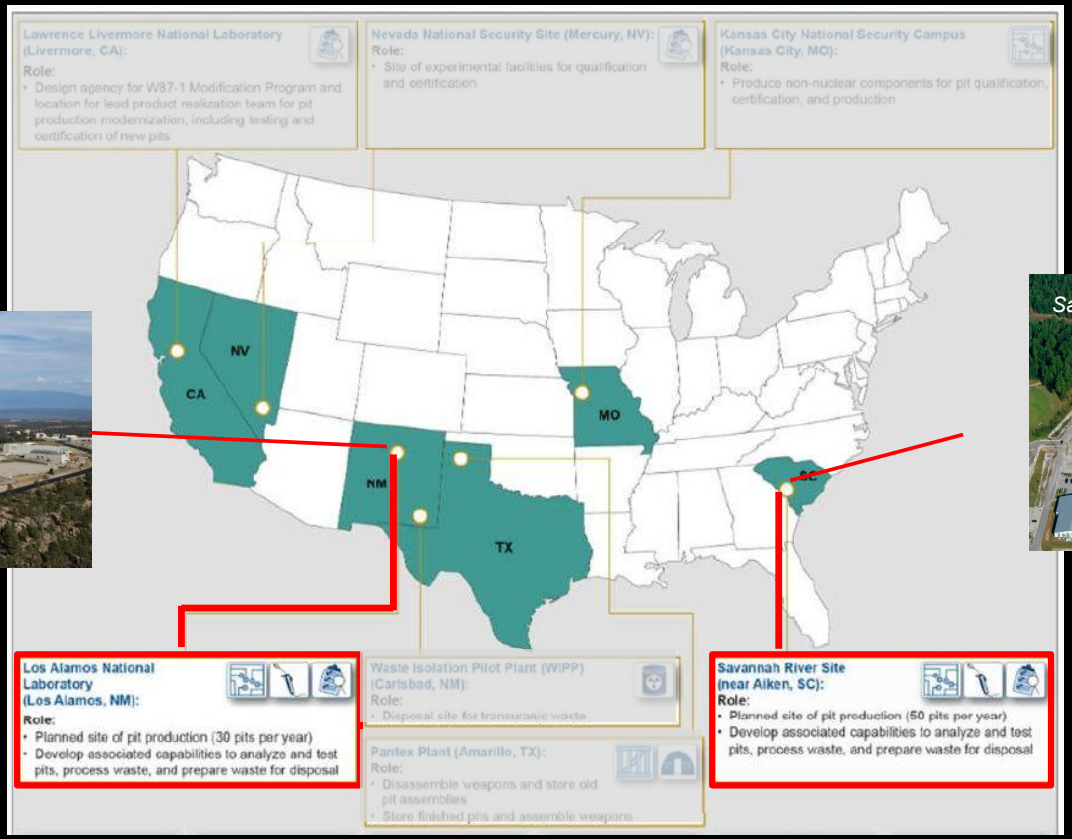
Some Background - Why Are We Here Now?

- First, there is a $2 trillion “modernization” program to keep nuclear weapons forever, for which expanded pit production is the key choke point
- The NNSA failed in 4 previous NEPA processes to increase pit production. Its conclusion? Don’t do NEPA.
- Nuclear Watch New Mexico, Savannah River Site Watch and Tri-Valley CAREs wrote to NNSA five times demanding a PEIS. We got no answer.
- In June 2021 the South Carolina Environmental Law Project filed our lawsuit.
- In September 2024 a federal judge ruled that NNSA had violated NEPA.
- Our settlement mandated a PEIS that begins with public “scoping” hearings to determine the range of issues that NNSA should address - Many comments were made at those hearings
- After the comment period comes to a close, the NNSA will most likely release a Final PEIS (which should respond to all of the comments made on the Draft) and a Record of Decision.

Why did the judge rule for the plaintiffs? Two Site Solution for Plutonium Pit Production - Without Alternatives

Los Alamos, NM



Savannah River, SC

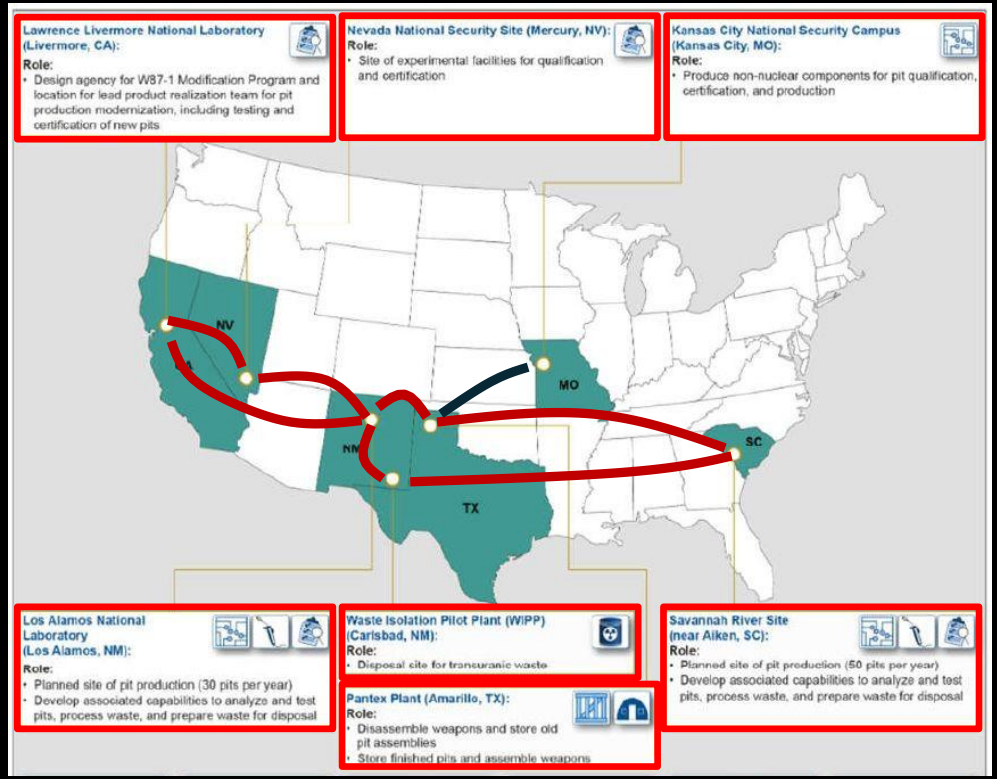
Images: Modified from DOE

Human and environmental risks were not fully evaluated

South Carolina district court ruled that NNSA has not complied with NEPA in considering impacts from pit production
(Savannah River Site Watch et al v. United States Department of Energy et al, No. 1:2021cv01942 - Document 207 (D.S.C. 2024))

Impacts from pit production are not limited to two sites.

New, legally-mandated, Programmatic Environmental Impact Statement (PEIS) draft was released Friday, April 10th.



Plaintiffs' Tour of SRS

- Toured pit production facility at SRS in April as part of settlement agreement
- No credible cost estimates
- Cost overruns and scheduling delays very likely

Livermore Public Hearing

Livermore, California Tuesday, May 12, 2026 5:00-5:30pm Open House Poster Session 5:30-8:00pm Formal Public Hearing	Garré Vineyard & Winery Santa Rosa Room 7986 Tesla Road Livermore, CA 94550	No virtual meeting option.

What to Expect

- If you can, arrive for the 30 minute tabling session. Tri-Valley CAREs will have a table and staff present. We can discuss last minute commenting questions.
-
- Sign up to speak before the hearing starts - arrive early!
- You'll have 3 minutes
- Media will likely be present
- The NNSA will not respond during the hearing

Preparing to Speak

- Draft your comment this weekend
    - Scott, Marylia and Tanvi can review your comments if you send them **by Monday** (scott@trivalleycares.org marylia@earthlink.net and tanvi@trivalleycares.org)

- Practice and time your comment ahead of time

- Introduce yourself, state your concern clearly, state your desired solution

- Speak clearly and slowly

- Use your full 3 minutes

Suggested Talking Points

Picking Your Talking Points Wisely

- Start with something personal
- 3 minutes is a short time, better to say something completely and meaningfully then many incomplete things
- Part of the oral hearing is for others in the room to hear you, you can say more in writing
- What follows are lots of options of topics to talk about. You can also come up with your own topic/perspective. This is just to guide your thinking
- This PEIS springs from successful citizen litigation. Public comment is very important! It can build the case for further litigation.
    - With current administration's attacks on NEPA, this may be the last nuclear weapons project the public gets to adequately scrutinize!!

PIT PRODUCTION IS UNNECESSARY

The agency's "Purpose and Need" for new Plutonium Pits does not consider the facts:

- No evidence that plutonium pit aging is affecting the safety and reliability of the existing nuclear stockpile for many years to come.
- Existing pits now average around 43 years old and estimates are that they should last for 100 years.
- More than 15,000 existing pits are already stored at NNSA's Pantex Plant near Amarillo, TX.
- No future production is to maintain the safety and reliability of the existing, tested stockpile. New pits are for *new* nuclear weapons designs, specifically the W87-1 ICBM and the W93 sub-launched warheads.

THE PEIS IS INCOMPLETE AND MISLEADING

The Draft PEIS does not adequately analyze the impacts of the work at all sites involved in pit production.

- The NNSA must “take a hard look” at the related impacts at Lawrence Livermore National Lab, the Kansas City Plant, the Waste Isolation Pilot Plant, Pantex, and Nevada Nuclear Security Site, it PEIS fails to adequately analyze these sites.
- No historical context of pit production - i.e. Rocky Flats
- No mention of “worst-case” accident scenarios
- No proliferation study

The Draft PEIS Fails to Adequately Analyze Alternatives

- The NNSA must consider a true no action alternative where plutonium pits for new nuclear weapons are not produced.
- Instead the “No Action” Alternative claims the two-site proposal that produces up to 80 total new plutonium pits per year (with a surge capacity of 120) is the baseline.
- It then analyzes a “multi-site proposal” of producing up to 205 pits per year!
- You can suggest another “reasonable” alternative

HUMAN HEALTH & ENVIRONMENTAL JUSTICE FAILURES

- Relies too heavily on the “maximally exposed individual” (MEI). This is a hypothetical person at a selected location and not a real community-health analysis. The Final PEIS should also discuss children, pregnant women, elders, outdoor workers, people with existing health conditions, and communities already burdened by contamination or poor access to healthcare.
- The NNSA should expand the impact radius beyond a 50-mile radius to account for worst-case scenarios such as facility fires. Additionally, the NNSA must account for the cumulative impacts of other chemicals in the environment
- The PEIS uses technical phrases like ‘latent cancer fatality.’ It should explain plainly that this means estimated future cancer deaths from radiation exposure.

LLNL IMPACTS ARE HIDDEN OR UNDERANALYZED

- Livermore Lab is already deeply involved in supporting Expanded Plutonium Pit Production.
    - It is designing two new nuclear warheads—the W87-1 and the W93—both of which require new plutonium pits be manufactured.
    - It received $163M in the last two years for “Enterprise Pit Production Support” work and another $167M is requested for FY2027.
- While LLNL is not directly involved in pit production, it is important to R&D, the certification of new plutonium pits, ongoing plutonium aging experiments, sample preparation for subcritical testing.
- LLNL will receive plutonium ‘coupons’ for this R&D, testing, and certification work. The PEIS needs to define “plutonium coupons,” estimate the number of shipments of these “coupons” to Livermore, provide the weight range of “plutonium coupons,” describe the experiments and processes that will occur at LLNL with them, and whether these experiments and processes will create waste.

“Enhanced Plutonium Utilization” at LLNL Goes Unexamined

- LLNL announced in a January 2025 Federal Register Notice (NOI) its plan to release a Supplemental EIS on “Enhanced Plutonium Utilization.” The plan will increase LLNL’s security category to allow for exponential increases in the plutonium “throughput” at the Lab.
- It is clear from the NOI that the “Enhanced Plutonium Utilization” is in large part driven by Livermore’s Plutonium Pit work which is directly connected to the national “Expanded Plutonium Pit Production” plan.
- **The NNSA decided NOT TO PUBLICLY RELEASE the Draft SEIS on Enhanced Plutonium Utilization at LLNL. The Draft PEIS fails to clearly identify the extent to which pit production support work at LLNL is the driving force for Enhanced Plutonium Utilization.**
- Without the public SEIS and any analysis in this Draft PEIS, the public in Livermore is left with no analyses to comment on the increase in Plutonium work in our community

SAFETY RISKS & ACCIDENT HISTORY

- LLNL's plutonium facility has a troubling history of safety and security incidents including plutonium fires, leaking or "burst" glove-boxes, and accidental plutonium releases to the sewer.

- LLNL's plutonium facility has failed security drills involving planned mock terrorist scenarios. The PEIS has not explained to the public how LLNL intends to make increased plutonium utilization for LLNL's plutonium pit production support work safe for the almost 10K workers on site or the surrounding community.

- More than 3200 former workers from LLNL have made claims for illnesses caused by on the job exposures to radiation and toxic chemicals under the Energy Employee Occupational Illness Compensation Program Act (EEOICPA). Given the history of worker exposures at LLNL and across the nuclear weapons complex (140,000 total workers have made claims), the PEIS should analyze and estimate the number of new claims under EEOICPA that its plutonium pit production plan will result in and the costs.

SAFETY RISKS & ACCIDENT HISTORY

- LLNL is a Superfund site with ongoing environmental cleanup. The PEIS should address remediating existing environmental harm and be transparent about the cumulative risks associated with pit production support work at the site. NNSA should show the health risks over 10 years, 30 years, and 50 years, not just one year at a time. A small yearly exposure can still matter when workers face it over many years
- The impacts of accidents are analyzed within a 50-mile radius of the facilities (LANL & SRS). A worst-case accident could result in health burdens that extend further and aren't analyzed for other sites.
- The PEIS separates normal operations from accidents and intentional destructive acts, but communities experience all of these risks together. NNSA should provide a clear public explanation of possible health impacts from accidents, fires, transportation crashes, and security events at every site involved.
- The human and environmental risks inherent to plutonium are no different today than in the past. History has shown that nuclear weapons production results in heavy burdens at the sites where it occurred and to the workers who carried out the work.

The PEIS does not Adequately Analyze Dangers

- The draft PEIS does not transparently describe potential hazards stemming from transportation. Enormous amounts of radioactive materials and waste will be transported by road across much of the southern United States, but the PEIS does nothing to explain potential impacts to communities along these routes. Between 400-500 shipments of waste and plutonium per year will be required from each site.
- The PEIS transportation currently focuses on major routes among LANL, SRS and others, but LLNL's role analysis is not clearly described in the waste and transportation tables. Nor is the route and level of shipment between LLNL and other sites, including the Nevada National Security Site (But it likely occurs I-580 over the Altamont Pass and I-80 over the Donner Pass.)
- Communities surrounding both of the chosen production sites include vulnerable populations -- women, children, and low-income residents who should not be forced to bear the potential environmental and health consequences that come along with new pit production. The PEIS fails to analyze the true risks to the most vulnerable and relies on generous assumptions to calculate risk.

Nuclear and Hazardous Waste Analyses

- NNSA treats waste like something that can be handled later. But making new plutonium pits would create radioactive and hazardous waste every year for decades. The public deserves to know where that waste goes, who handles it, and which communities are affected.
- The PEIS should give a clear yes-or-no answer: will pit-production-related work create new or increased radioactive, hazardous, mixed, or liquid waste at LLNL? If yes, NNSA should say how much. If no, NNSA should explain why.
- The waste tables give estimates for Los Alamos and Savannah River, but not for LLNL. That leaves Livermore residents guessing whether there is no waste, a small amount of waste, or an increase in waste that has not been clearly shown.
- The PEIS must clearly disclose the quatnties of pit production support related work at LLNL will create any new or increased radioactive, mixed, hazardous, or liquid waste.

Increased Transuranic Waste to WIPP

The Waste Isolation Pilot Plant (WIPP) is located is located in southeastern NM near Carlsbad. The facility is built 2,150 feet underground in a salt formation, making it the nation's only licensed repository of defense-related transuranic (TRU) nuclear waste.

- WIPP is licenced only to accept **legacy** waste from nuclear weapons complex sites, not newly generated waste.
- New Plutonium pit production will result in significant new TRU waste generation.
- The Government Accountability Office estimates “that TRU waste from reestablishing a plutonium pit production capability represents about 68 percent of DOE’s total amount bound for WIPP beyond 2033.”
- The Draft PEIS fails to analyze an alternative to WIPP for the TRU waste generation from new plutonium pit production. This must be analyzed and determined before the NNSA moves forward with the plan.

Plutonium Pit Production is Expensive

- By resuming nuclear weapons production across the DOE nuclear complex, it is the American people who will pay the costs. Pit production is touted as a jobs producer, but the jobs it creates are dangerous and the money spent is unlikely to go to the communities doing the work.

The NNSA must produce a comprehensive cost and schedule for the pit production program

- Funds are being diverted from cleanup efforts to plutonium pit production, which only expands the issues further into the future.
- The NNSA is rushing to produce plutonium pits, despite not having an estimated cost or timeline for the program, allowing costs to skyrocket year after year.
    - Pit production is NNSA's most expensive and complex program ever, with $5 billion to be spent over each of the next six years and at least $60 billion over the next 20 years.
    - At more than $30 billion dollars the Savannah River Plutonium Processing Facility will be the most expensive building in U.S. history ($25 billion in FY 2027 budget request and at least $5 billion in sunk MOX costs).

Take Action! Be Involved in Democracy

- The Pit Production PEIS is an imperfect tool. But let's use it to the max!
- Stay tuned for hybrid workshops on the PEIS by the Union of Concerned Scientists, Tri-Valley CAREs and Nuclear Watch NM (dates TBD).
-
    - https://youtube.com/live/dKaq3IZuZH4?feature=share
- Keep your eyes on the prize! We can win a world without nuclear weapons if we remain determined and use all available tools.

PITPEIS.COM

SOUTH CAROLINA ENVIRONMENTAL LAW PROJECT | SRS WATCH | Alliance for Nuclear Accountability | nuclear watch new mexico — Watchdog of the Nuclear Weapons Complex | Tri-Valley CAREs | PSR Physicians for Social Responsibility | Union of Concerned Scientists | Wege Gullah Geechee Anointed People

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Take Action: How to Submit Written Comments

You can submit comments on the plutonium pit production PEIS through sending in written comment, as well as attending a hearing and making comments in-person, or online where available. We encourage both if possible, but take action however is easiest for you! To help, see below on exactly how to submit written comments (stay tuned to this website for upcoming comment trainings and sample talking points).