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January 10, 2023

The Honorable Jennifer M. Granholm
Secretary, United States Department of
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The Honorable Jill Hruby
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Ms. Maxcine Maxted
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**Subject: Santa Fe County's Comments on NNSA's Surplus Plutonium Disposition Program
Draft Environmental Impact Statement**

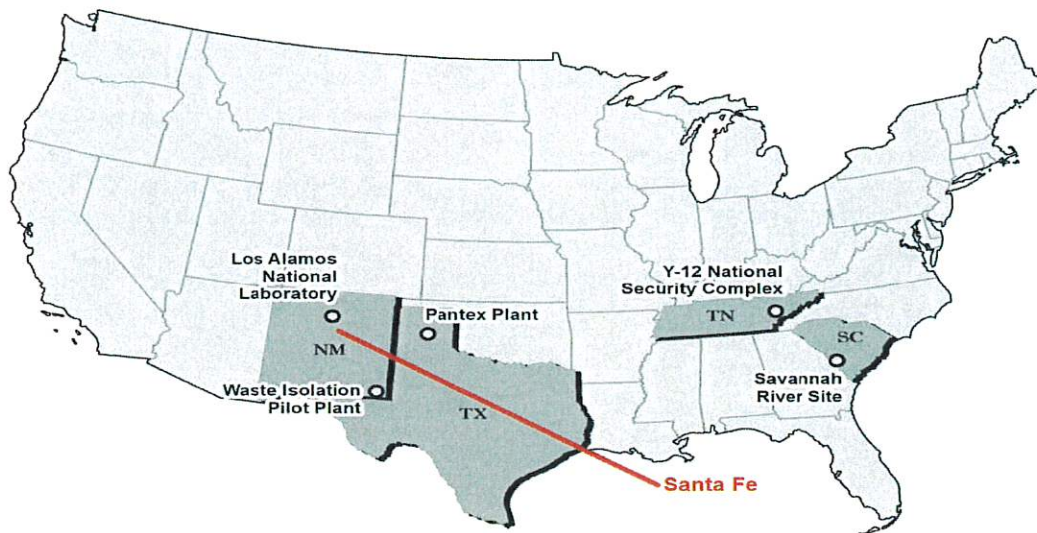
Dear Secretary Granholm, Under Secretary Hruby, LAFO Manager Wyka, and NEPA Document
Manager Maxted,

The Board of County Commissioners (BCC) of Santa Fe County submits the following
comments on the National Nuclear Security Administration (NNSA) Draft Environmental Impact
Statement (EIS) for the Surplus Plutonium Disposition Program (SPDP), published on December
16, 2022. We appreciate the opportunity to comment on the Draft EIS. Santa Fe County, in
particular, would be potentially impacted not only by the transportation of radioactive material, but
also by the dilute and dispose process, should the Los Alamos National Laboratory (LANL) be
selected for that process.

The entire proposal, whichever path is chosen, has the potential to put millions of people at
risk for financial and health impacts from potential accidents or incidents and dangerous disposal of
surplus weapons-grade plutonium and eventually being disposed of in some form at the Waste
Isolation Pilot Plant (WIPP), in excess of the 6.2 million cubic feet capacity our nation's only
permanent, deep geologic radioactive waste repository. An accident releasing only a small amount

of radioactivity could contaminate a 42-square mile area. A Department of Energy (DOE) study found that cleanup could cost \$620 million in a rural area and \$9.5 billion in the most heavily contaminated square mile of a large city.

The geographical scope of the proposal is illustrated below in **Figure S-3** of the Draft EIS summary report. We also have added the general location of Santa Fe to the map for illustrative purposes.



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Santa Fe County's approximately 155,000 residents living in close proximity to the transportation corridor needed for the process will be negatively impacted should LANL be selected for any stage of the dilute and dispose process of surplus weapons-grade plutonium. Further, many Santa Fe County residents obtain their drinking water from the Buckman Direct Diversion (BDD) project on the Rio Grande. The BDD is located south of the Otowi Bridge and is subject to contamination from LANL operations that affect Los Alamos Canyon and its tributaries. Increasing flood and storm events in the Los Alamos Canyon watershed are a major source of contaminants to the Rio Grande watershed. In addition, Santa Fe County's northern boundaries are only a few miles from LANL and could be impacted if harmful contaminants were released in the air or ground from failed operations associated with the proposed actions. The Draft EIS must take into account the potential contamination effects that the dilute and dispose surplus weapons-grade plutonium approach may have on the air, water, ecological resources, soils, and residents of the surrounding populations, including the citizens of Santa Fe County. It must also consider the use of resources, including electricity, land use for construction of new facilities, as well as impacts to cultural resources, socio-economic, and on-site and off-site transportation, and impacts as a result of waste generation, storage, and disposal on the Pajarito Plateau.

The U.S. government plans to dispose 34 metric tons (MT) of surplus weapons-grade plutonium under the Plutonium Management and Disposition Agreement (PMDA), which was signed by the United States and the Russian Federation in 2000 and amended in 2010, and the

Nonproliferation and Export Control Policy issued by President Clinton in 1993. The U.S. government defines surplus plutonium as plutonium that “has no identified use and does not fall into any of the national security reserved categories.” (DOE 2015 Final Surplus Plutonium Disposition Supplemental Environmental Impact Statement, EIS-0283-S2, p. S-1). According to DOE, the U.S. total stockpile of surplus plutonium currently exceeds 60 MT and exists in many forms, including reactor fuel, pits from retired nuclear weapons, used nuclear fuel, and scraps and residues from nuclear weapons production. *Id.*

As described in the Draft EIS, the SPDP proposes plutonium pit disassembly and conversion using facilities at the Savannah River Site (SRS) and/or LANL, and disposing of the material at the WIPP facility in Carlsbad, New Mexico. The so-called “dilute and dispose” strategy includes processing surplus weapons-grade plutonium to powdered plutonium oxide, diluting it with an adulterant to inhibit plutonium recovery, compressing it, encasing it in containers, and then overpacking and disposing of the resulting contact-handled transuranic (CH-TRU) waste underground at the WIPP in Carlsbad. The 7.1 MT of non-pit surplus plutonium to be sent to the WIPP facility as CH-TRU waste is part of the 34 MT of surplus plutonium proposed for the dilute and dispose program. The various approaches would require new, modified, or existing capabilities at the SRS, LANL, the Pantex Plant in Texas, the Y-12 National Security Complex in Tennessee, and/or WIPP.

NNSA’s preferred plan to dispose of the 34 MT of surplus weapons-grade plutonium calls for transporting the plutonium pits to LANL, where it would be converted to oxidized plutonium powder, also known as “downblending”, then transported to SRS so the facility can add an adulterant to make it unusable for weapons. The Draft EIS offers possible alternatives, such as doing all the downblending at LANL or SRS to reduce transportation, but it makes clear the original plan is the preferred method. The preferred alternative would include construction and modification activities to expand the existing capability (i.e., DOE’s Advanced Recovery and Integrated Extraction System Oxide Production Program) in the PF-4 building located in LANL’s Technical Area 55 (TA-55). The construction and modification activities would include the addition of new or modified gloveboxes, material entry hoods, and other upgrades to increase “throughput,” or the amount of materials being processed.

Under the No Action Alternative, the 34 MT of surplus plutonium would continue to be stored as surplus plutonium pits at Pantex, LANL would process up to 400 kg of actinides (including surplus plutonium) per year, and non-pit surplus plutonium up to 7.1 MT would be disposed at the WIPP facility. LANL currently processes up to 400 kg of actinides a year within their Advanced Recovery and Integrated Extraction System (ARIES) capability.

Santa Fe County has the following comments and concerns regarding the Draft EIS for the Surplus Plutonium Disposition Program.

- ***Dilute and Dispose Process Is Unproven.*** While the downblending process has been used on a small level, ramping up the complete process to the scale proposed in the Draft

EIS has not been proven to be possible, safe, or effective. All of the steps described in the dilute and dispose plan do not appear to have been sequentially demonstrated from start to end, posing a risk because even proven methodologies run into unforeseen problems.

- ***Dilute and Dispose Process Would Increase Radioactive Waste.*** The dilute and dispose process would increase the quantity of other radioactive and hazardous waste, as it would require installing more glove boxes — the sealed compartments that allow workers to handle radioactive materials — and other equipment to complete the process.
- ***Limit Dilute and Dispose to the Same Location.*** Provided the dilute and dispose strategy is scientifically proven as effective and safe, the process should be limited to one location – the Pantex facility – to prevent trucking the material to multiple locations across thousands of miles. The Draft EIS rejects considering this alternative. Page 2-25. Surplus weapons-grade plutonium should remain secured at or near the site of generation and transported only once, if necessary. It must not involve unnecessary risks to communities. Radioactive material has been historically stored at the Pantex facility since the 1970s. https://pantex.energy.gov/sites/default/files/About_Pantex.pdf
- ***LANL's Track Record of Nuclear Safety Incidents.*** With respect to LANL's role in the process, LANL has had nuclear safety incidents that have forced a three-year suspension of major operations at LANL's main plutonium facility. Over the past 10 years, glove box incidents have occurred with frequency, exposing workers to plutonium and other hazardous contaminants, according to LANL studies and Defense Nuclear Facilities Safety Board (DNFSB) reports. LANL, with oversight from NNSA and DNFSB, must successfully demonstrate that it can successfully, safely and consistently complete its responsibilities under the dilute and dispose process.
- ***WIPP Should Not Be Over Used or Used Beyond Its Intended Purpose.*** Increased plutonium pit production currently proposed for LANL, combined with the proposed dilute and dispose program, will result in yet more generations of plutonium contaminated radioactive wastes that NNSA believes it may dispose of in the already oversubscribed (WIPP). Because existing structures are not designed to store the large amounts of pits and waste materials, these factors should be considered and resolved prior to ramping up production. Additionally, in 2020, the DNFSB noted that LANL “does not adequately analyze energetic chemical reaction hazards involving transuranic waste,” such as the improperly prepared radioactive waste drums from LANL that ruptured in 2014 and contaminated and closed the WIPP for nearly three years. Further, while WIPP has stored limited quantities of classified TRU waste in the past, the U.S. Environmental Protection Agency (EPA) and the New Mexico Environment Department (NMED) may limit waste volumes through the size limitation of the underground waste panels. An inability of WIPP to accept and store TRU wastes could disrupt the dilute and dispose program. Future accidents resulting in lengthy shutdowns, such as those that

occurred in 2014 due to a salt truck fire and an unrelated radiological release event underground, pose a risk to access for the dilute and dispose programs.

- **Concerns Over Transportation of surplus weapons-grade plutonium.** Transporting plutonium-contaminated radioactive waste for the purpose of the Surplus Plutonium Disposition Program would unnecessarily increase risks of accidents and terrorism activity along the proposed 3,300-mile route from Pantex to LANL to SRS. There has never been such a large scale shipping campaign, and communities along the transportation routes have many well-founded concerns.
- **Environmental and Social Justice Impacts on Frontline Communities.** DOE plans to spend \$9.4 billion in FY 2023 in New Mexico (71% for core nuclear weapons research and production programs), substantially greater than the State's entire budget of \$8.5 billion. The inequitable economic impacts of such funding must be thoroughly evaluated, recognizing that New Mexico ranks 49th in the percentage of people who have incomes below the poverty line, 50th in pre-K to 12th grade education, and 50th in child well-being.
- **Monitoring and Inspections.** The PMDA requires international monitoring and verification of the dispositioned surplus plutonium. It is not clear whether a monitoring and verification plan for the waste has been established. NNSA should clarify their intent with respect to whether there will be national and international monitoring and inspections for this material.
- **More DOE, EPA, and NMED Vetting.** The EPA, the Department of Energy, and NMED should engage in developing a mutually agreed-upon strategy for vetting the effects of the dilute and dispose inventory at LANL and at WIPP. This should occur before committing the substantial resources that will be needed to implement an integrated dilute and dispose program.
- **Need for a New Comprehensive Programmatic Environmental Impact Statement (PEIS).** Prior to finalizing the SPDP EIS, we agree with the National Academies of Science, Engineering, and Medicine that DOE should implement a new comprehensive programmatic environmental impact statement (PEIS) to consider fully the environmental impacts of the total diluted TRU waste inventory (up to an additional 48.2 metric tons) targeted for dilution at SRS or LANL and disposal at WIPP. Given the scale and character of the diluted surplus plutonium inventory, the effect it has on redefining the character of WIPP, the involvement of several facilities at several sites to prepare the plutonium for dilution, a schedule of decades requiring sustained support, and the environmental and programmatic significance of the changes therein, a PEIS for the whole of surplus plutonium that considers all affected sites as a system is appropriate to address the intent and direction of the National Environmental Policy Act (NEPA) and would better support the need for public acceptance and stakeholder engagement.

- **Environmental Evaluation Group.** If the dilute and dispose plan moves forward, DOE should reinstate funding for the independent Environmental Evaluation Group (EEG), representing the concerns of New Mexico and other stakeholders.

In conclusion, our lives, land, and aquifers must be protected from radioactive contamination, which could result from accidents, radiation releases or leaks, or terrorist actions during the surplus weapons-grade plutonium shipments that would occur under the existing and proposed programs. Local stakeholders, such as the County, must be engaged early and as often as possible to ensure that decisions are being influenced by those who will be affected by them. The impact of including local governments with their boots on the ground experience is invaluable to minimizing the long term impact of the proposed plan and for potential community buy-in.

Respectfully,



Anna T. Hamilton, Chair
Board of County Commissioners for Santa Fe County



Commissioner Anna Hansen, Santa Fe County, District 2
505-920-0957 mobile

This letter has been sent to:

Governor Michele Lujan Grisham
Senator Martin Heinrich
Senator Ben Ray Lujan
Congresswomen Teresa Leger Fernandez, Melanie Stansbury, and Gabriel Vasquez
Speaker of the House of Representatives of New Mexico
Leader of the New Mexico Senate Peter Wirth
Members of the NM Interim Legislative Radioactive & Hazardous Materials Committee
Governor of San Ildefonso Pueblo
Governor of Tesuque Pueblo
Governor of Nambe Pueblo
Governor of Cochiti Pueblo
Governor of Pojoaque
Governor of Santa Clara
Governor of Zia
Governor of Kewa
Governor of San Felipe
All Pueblo Council of Governors
U.S. Senate Armed Services Committee
U.S. House Armed Services Committee